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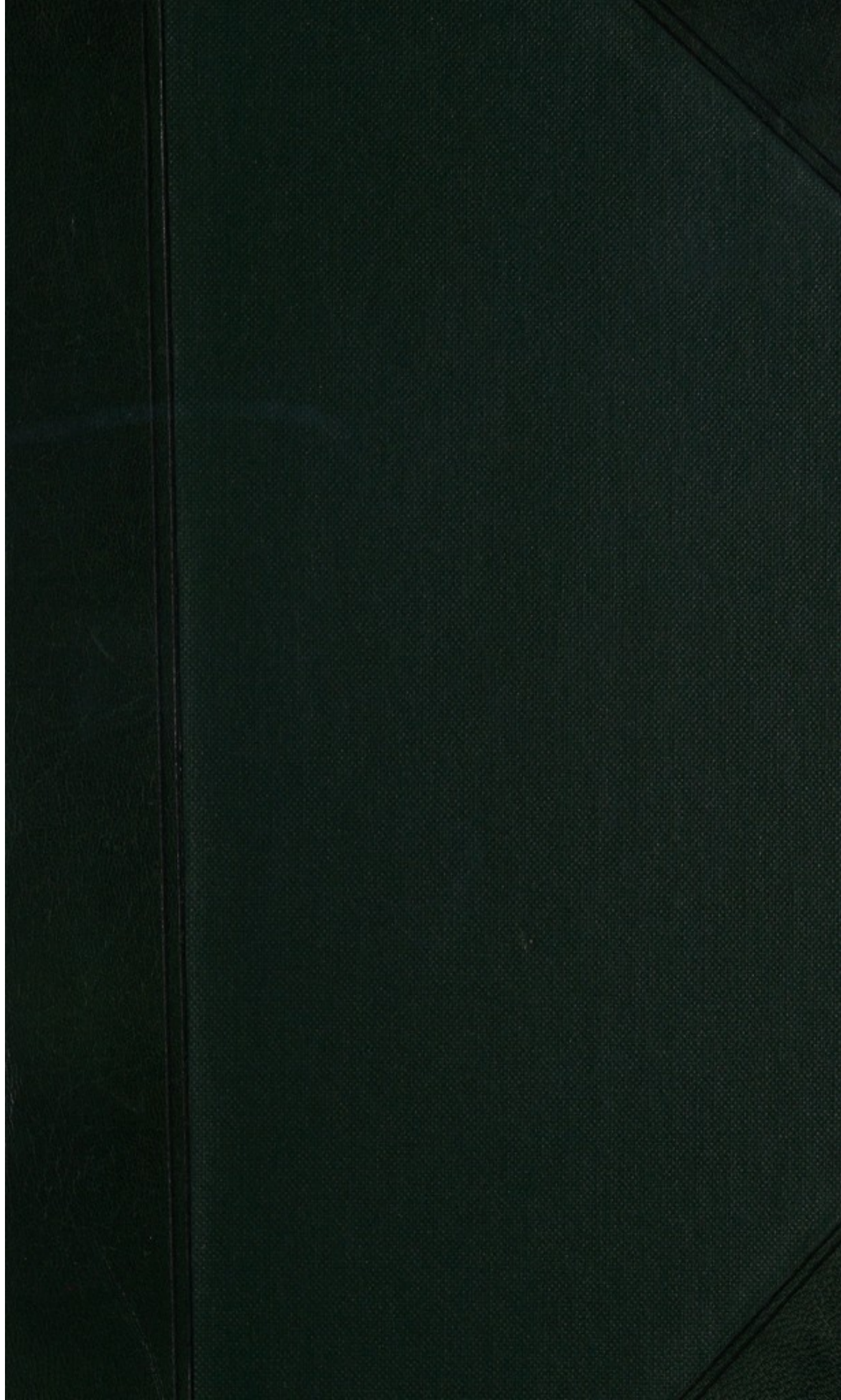
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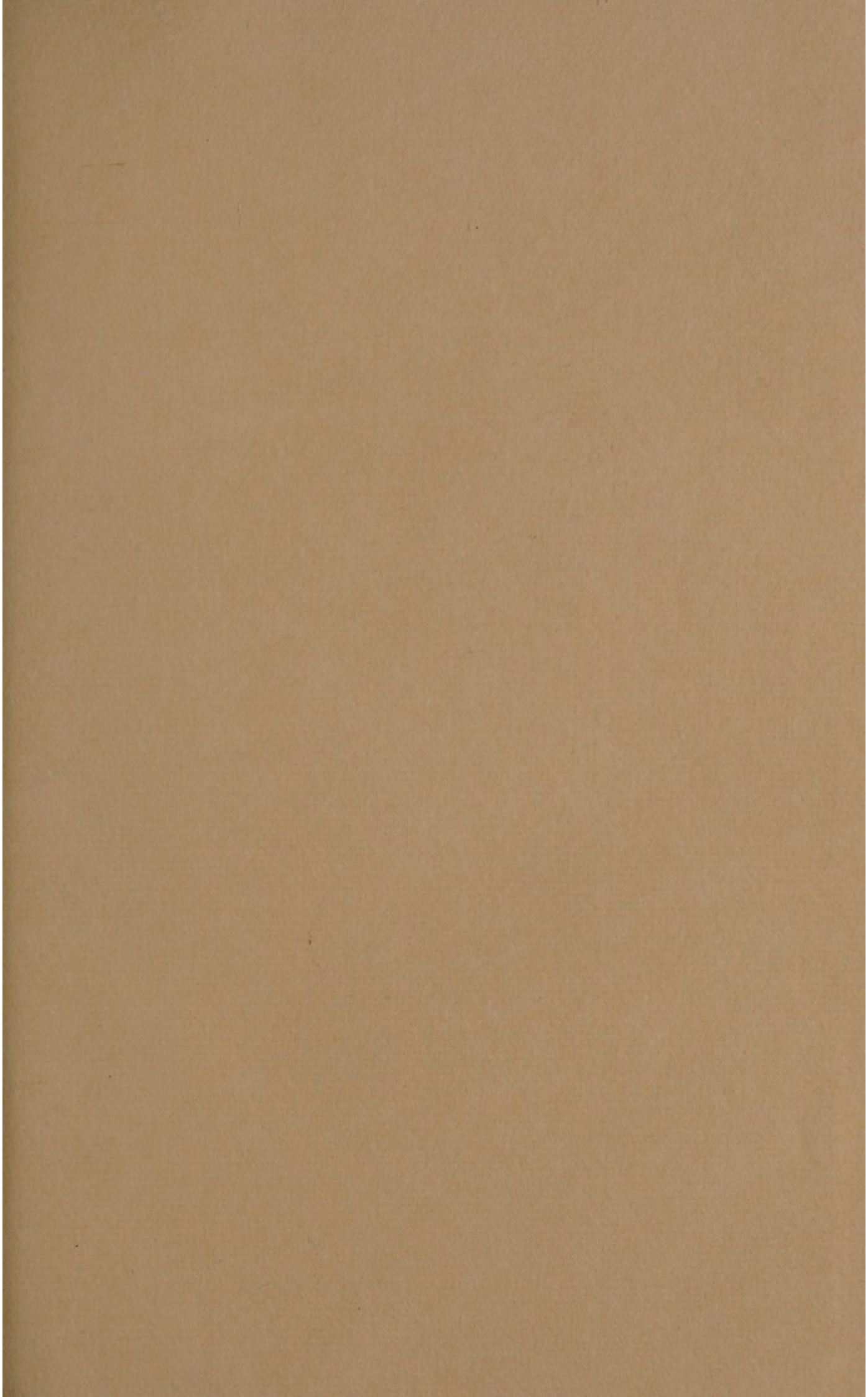
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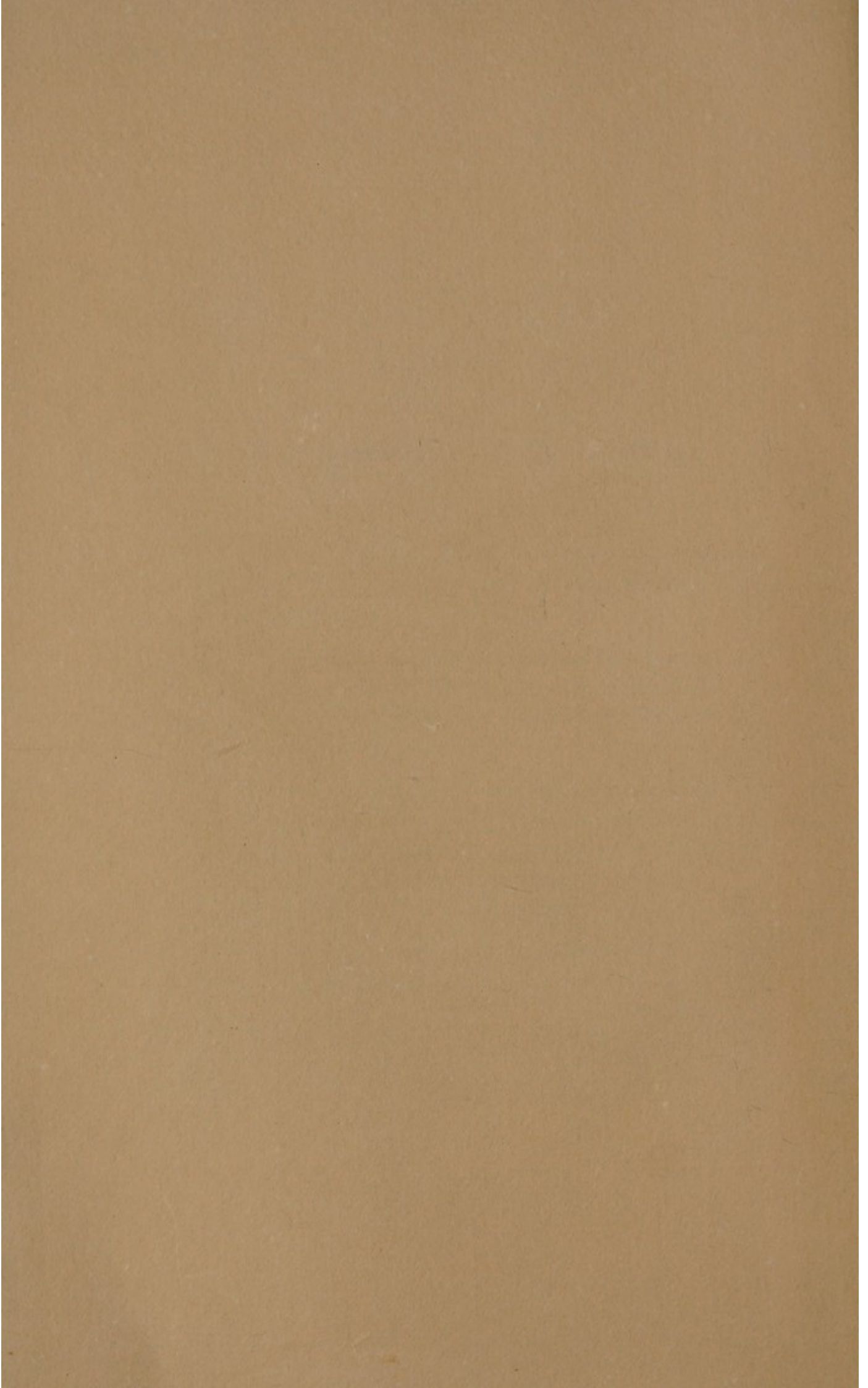
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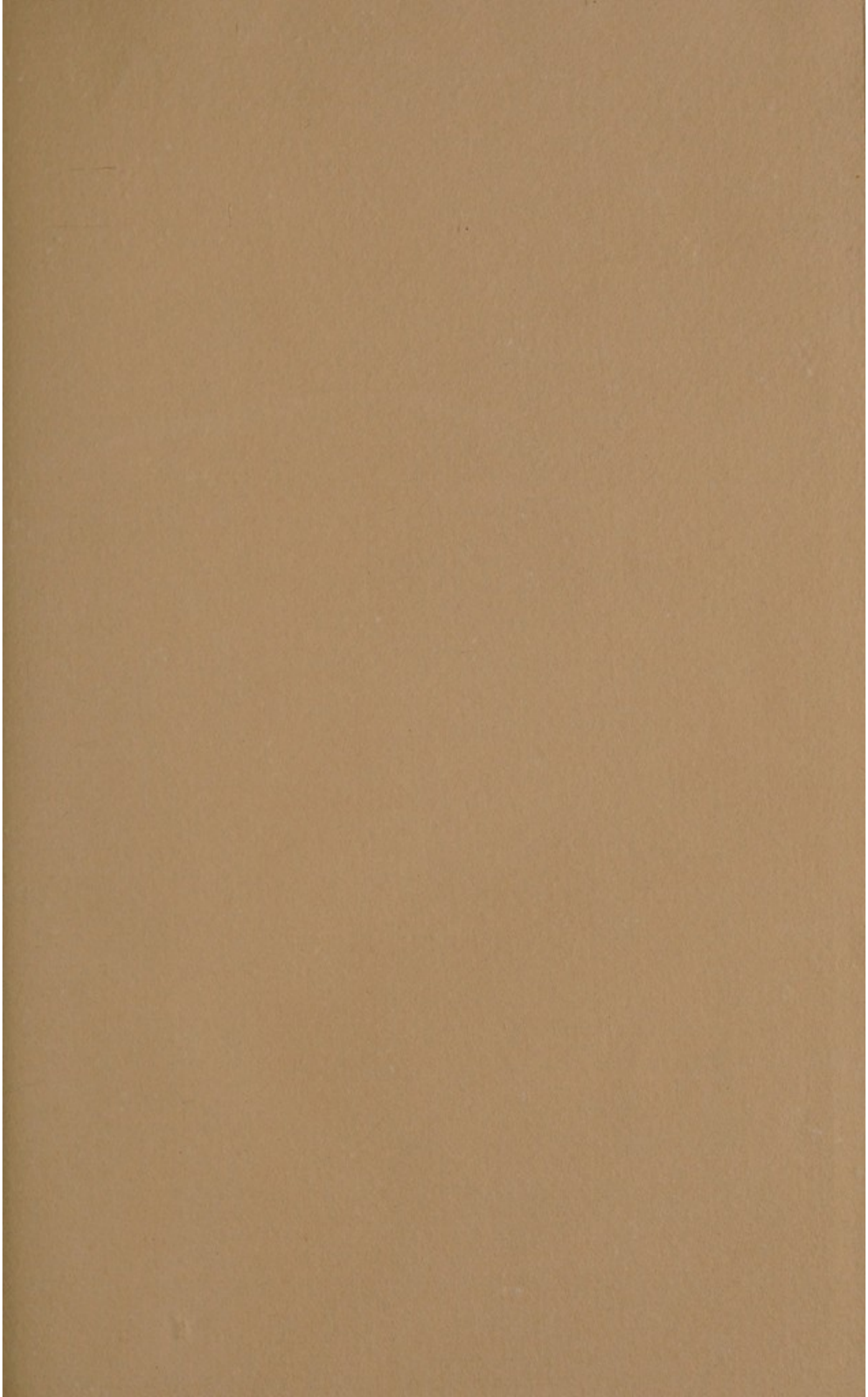
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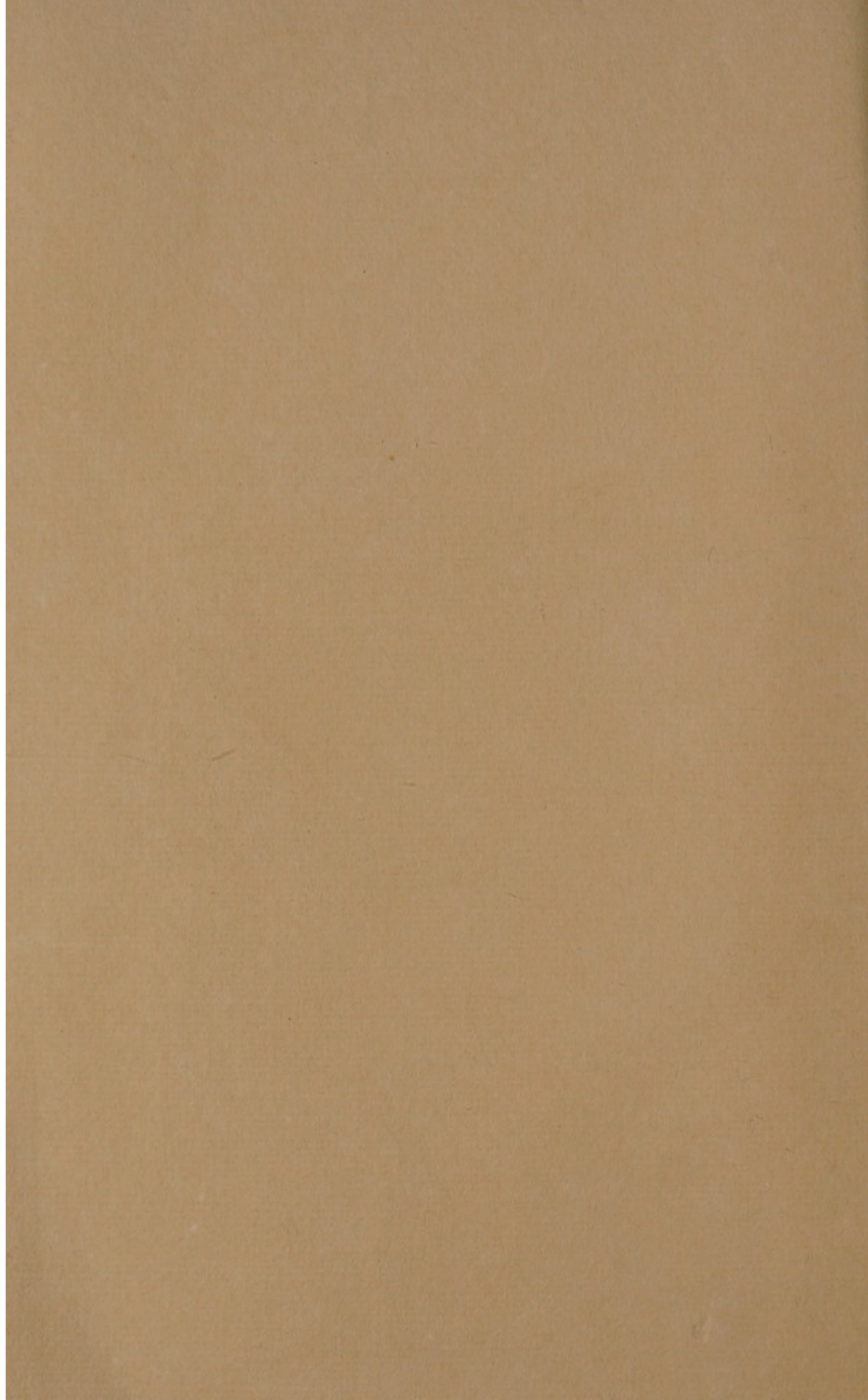






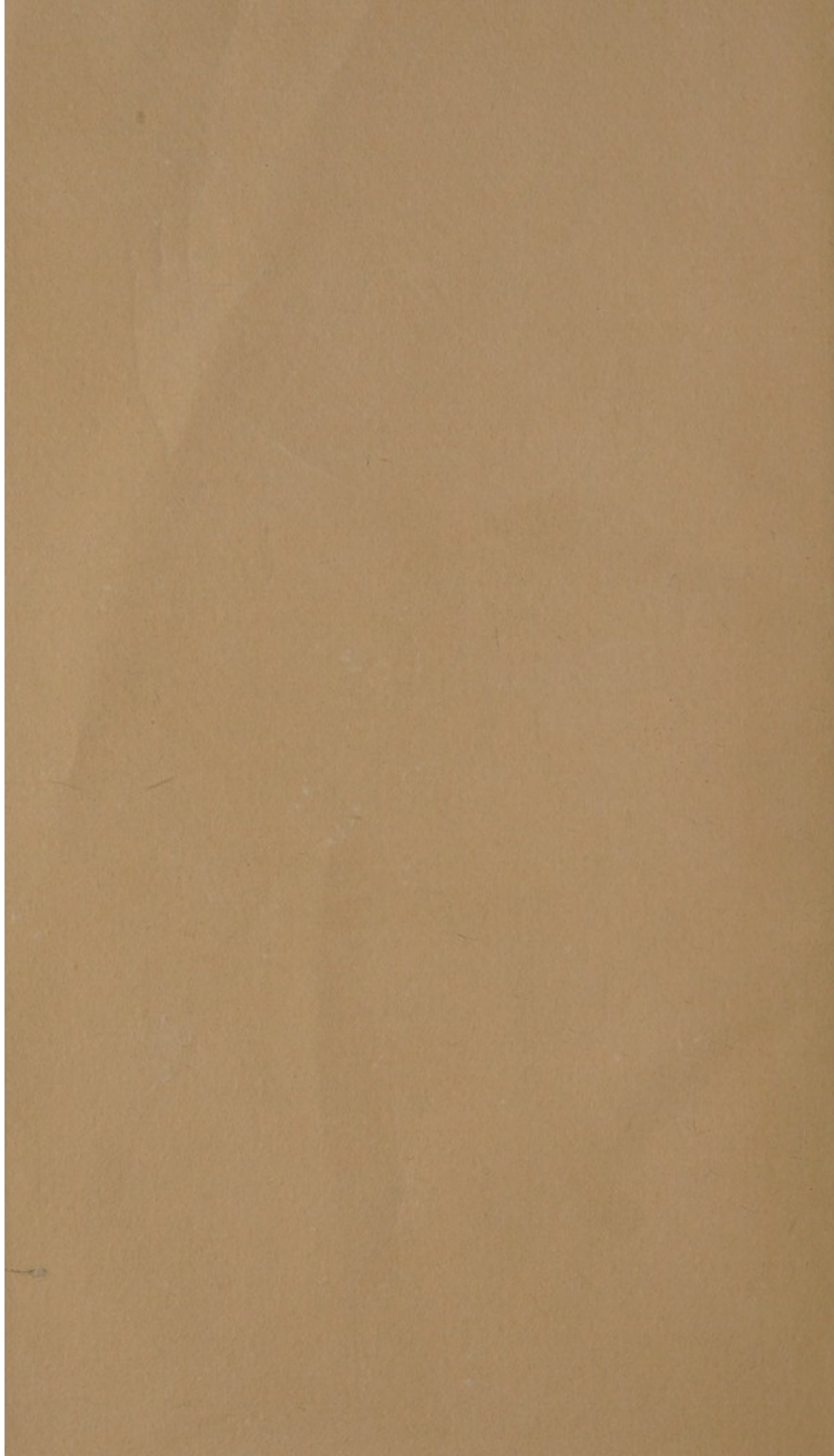












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## PREFACE.

WHEN I published the early editions of my "Treatise on the Nature and Cure of Gout and Rheumatism, including general considerations on morbid states of the digestive organs; some remarks on Regimen; and practical observations on Gravel;" I expressed my intention of extending my view of the subject of Rheumatism at a convenient opportunity. My purpose has been postponed longer than I expected; but I have the satisfaction of considering that, by this delay, I have been enabled to offer the results of a more extended experience.

It must, I think, be regarded as somewhat singular, that no systematic treatise should have hitherto appeared on a disorder of such frequent occurrence as that of Rheumatism. I am not aware, at least, that any work claiming that character is to be found in the English language;



although many single essays have been written for the purpose of promulgating particular doctrines, or of recommending the use of particular medicines, or modes of treatment. It is sufficiently evident that neither in these, nor in works of a more general nature, which profess to embrace all the various departments of the theory and practice of medicine, can we expect to see the distinct and yet comprehensive purposes of a Treatise fulfilled.

I am far from wishing to deny the respective merit and utility of each of these kinds of publication ; while, at the same time, it is greatly to be desired that systematic treatises should be written on all the more important diseases incidental to the human frame ; and although much has been already accomplished, as the shelves of the medical bookseller can testify, yet, when we view the long catalogue of the nosologist, it must be acknowledged that much still remains to be effected.

In the present enlightened age, when education and knowledge are so universally diffused, it

would be a matter of just regret that the practice of medicine alone should cease to be progressive ; and it ought surely to be the ardent wish of every liberal practitioner, to see the principles which are to guide his conduct brought nearer to perfection, and confirmed by increasing evidence.

Such are the views by which I have been actuated in taking up my pen on the present occasion. The task which I have undertaken has not been free from difficulties. I am perfectly sensible that I have rather met than conquered them ; but my labors will not have been useless, nor without reward, if I have succeeded in bringing to the subject more of method and general information than I found belonging to it ; and, in this manner, opened a clearer path for others who may be engaged in a similar research after truth.

The bulk of this volume which is more immediately devoted to an inquiry into the causes and cure of rheumatism, will, I hope, be found sufficiently comprehensive. In the concluding part, I have introduced some observations on painful



forms of disease more or less intimately connected with the leading object of this Treatise ; but, without entering on a second volume, it would be impossible to pursue the subject more in detail.

*Wimpole Street,*

*May 10th, 1827.*

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ERRATA.

- Page 29, l. 12, *for* Macgriggor, and p. 45, l. 18, *for* M'Greggor, *read* Mc Grigor.  
— 127, l. 12, *for* is *read* are.  
— 220, l. 14, *for* potient *read* patient.  
— 313, l. 1, *for* lactuar. *read* lactucar.  
— 320, l. the last, *for* preparation used *read* preparation being used.  
— 415, l. the last, *for* parietas *read* parietes.

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# T R E A T I S E,

&c. &c.

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It is my intention to attempt, in the following pages, a general history of the nature and cure of Rheumatism ; and, in order that I may be enabled to treat the subject in the most analytical manner, and to offer a clearer exposition to the reader, I shall separate the theoretical from the practical part, under distinct heads, according to the arrangement which I adopted in my Treatise upon the Gout.

We may easily conceive that rheumatism would be one of the earliest diseases\* of the human body occurring both in rude and civilized life ; and it

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\* In the early ages of the world, it is to be presumed that diseases were few in number. The index of the Nosologist of the present day makes us shudder to think how we can escape the long train of ills "which flesh is heir to." The progress of medical art and science has been very gradual. Celsus, in his



## 2      ANCIENT TERMS FOR DISEASES OF JOINTS.

is even supposed by an eminent commentator, that it was this disorder to which allusion is made in Job, c. xxxiii, v. 19, 20. It seems rather remarkable that the sagacity of Hippocrates,\* and the subsequent inquiry of Aretæus and other ancient physicians, did not lead to some better discrimination between gout, rheumatism, and scrofulous diseases of the joints. All were comprehended under the general title of *Arthritis*, although some distinction was made by Hippocrates, according to the situation of the disease ; and the still cherished term of *podagra* was chosen by the Father of Physic to denote the gout in the feet. Those general pains of the joints, which, from his description, we might refer either to gout or rheumatism, he called *KEΔMATA*, or a durable affection proceeding from a defluxion. In the second section of his second book, he speaks of pains and swellings of the joints

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beautiful Preface, remarks that Homer relates instances of medical help being given to the wounded only ; and that diseases were an affliction from the gods, of whom assistance was to be sought.

\* Said to have been born 550 years B. C. and to have lived to the age of 100 years and upwards.



not terminating in podagra ; and which, from the detail of the symptoms, correspond more with the nature of rheumatism than of gout. He considered that the cause of the diseases of the joints originated in a corruption of the blood by bile and phlegm.

*Aretæus*\* appears to confine his distinctive terms to podagra, chiragra, and ischias ; and to attribute the arthritic diseases to an affection of the nerves ; while he confessed that the true cause was known to the gods only.

*Cælius Aurelianus*† enumerates a great variety of terms to designate the particular situations of arthritis, which he describes as the genus, and podagra as the species. But he distinctly states, that various as are the situations of the disease, its nature is the same, and no difference is required in the principles of treatment. He speaks of rheumatism, not as a term for diseases of the joints, but as an internal defluxion of a thin humor. Galen uses the term in the same sense. Indeed the theory of the humors, or doctrine of the hu-

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\* Was a native of Cappadocia, and was supposed to have flourished in the reign of Emperor Trajan, about the year A.D. 112.

† Le Clerc is of opinion that he lived in the 5th century.



moral pathology, led the ancient physicians into the most confused views of disease, both as to their nature and treatment.\* Nor did a more just and philosophical pathology appear, till a brighter light had been elicited by the study of anatomy and modern physiology. No original genius illumined the horizon of our science like that of *John Hunter*. He derived his inductions from experiment and observation.

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\* In thus expressing myself, it is far from my wish to exclude humoral doctrine from modern pathology. The blood must undergo changes no less than the solids, and the blood and its vessels constantly exercise a mutual influence on each other; but when conclusions are drawn from supposed states of the blood, as being corrupted with different humors, bile, black bile, phlegm, &c. with rules of treatment for their crude or concocted state, erroneous principles of practice will follow as a necessary consequence. The greatest improvement in modern practice has arisen from founding pathology upon anatomy and physiology, and upon the study of the functions of the various parts of the animal economy, in health and disease. When we employ the terms secretion, exhalation, absorption, congestion, effusion, &c. we make a useful practical reference to functions. Different diatheses exist in the system at large, which are often connected with some certain state of the blood; and this is a branch of study requiring more attention than what it usually receives. Much influence must be allowed to the state of the blood, in regard to the action of the various glands. The term secretion is preferable to the ancient term, humor, since it significantly refers to function.



With all due reverence, therefore, for the wisdom and the patient observation of the Fathers of Physic, it must, I think, be allowed that a further reference to their authority on the nature of arthritic disease, would be matter rather of curiosity than usefulness ; as regards my present distinct inquiry into the nature of rheumatism.

*Baillon*,\* a celebrated French physician, appears to be the first author who treated of rheumatism as a separate disease from gout. His choice of the term Rheumatismus (derived from ῥεῦμα a defluxion) points out his opinion of its being a humoral disease. He considered that the symptoms of this disorder were produced by the acrimonious qualities of the impure blood passing off by the skin, through the muscles and nerves, as a depuratory process. "Gout," he says, "is a disease of a certain part, and periodical ; rheumatism, of the whole body, and more uncertain in its attack." He thought, however, that, unless great care were taken in the habits of living, rheumatism would

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\* Ballonius, as he styles himself in the Latin Treatise which was published at Paris, in 1642, "De Rheumatismo et pleuritide dorsali." He died 1616 ; and his works were published after his death by Thevart.



certainly lead to the gout. Attributing the disease to a corrupted state of the blood, he advised bleeding as the most fit evacuant, and condemns the administration of all active internal medicines. These are his words: “*Laudamus quidem, impendiò magis phlebotomiam in hoc morbo quàm saluberrimum esse remedium testamur. Clysterum frequens usus valet. Medicamenta per os sumenda nocent; inflammationem augent, et dolores in artubus et habitu corporis irritant. Cassia et lenientia tamen omnino non improbamus; hæmorrhagia confert; sub finem sudores.*”

*Sydenham*\* does not allude to the writings of *Ballonius*, but observes of rheumatism, “This disease, when unattended with fever, is frequently mistaken for the gout, although it differs essentially therefrom, as will easily appear to those who are thoroughly acquainted with both diseases; and hence it is, perhaps, that physical authors have not mentioned it, unless indeed we esteem it a new disease.

*Boerhaave*†, we are informed, did not treat of

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\* Died 1689, aged 65.

† Died 1738, aged 70.

rheumatism as distinct from gout, in his lectures and writings ; but he himself became a sufferer from severe attacks of rheumatism, and thus, by sad experience, obtained a knowledge of the disease.

*Sauvages*,\* with his usual fondness for subdivisions, enumerates no less than fifteen varieties of rheumatism ; comprehending in this extent, a description of bodily pains, from whatever cause arising ; as, from scurvy ; intermittent fever ; worms ; hysteria ; painters' colic ; &c. &c. He pays the compliment to Sydenham, of considering him as the first author giving a distinct history of rheumatism, and does not notice the earlier writings of Ballonius.

*Dr. Cullen*† has defined rheumatism according to the following translation : “ A disease from an external, and often an evident cause ; pyrexia ; pain about the joints, following the course of the muscles, fixing upon the knees and larger joints, in preference to those of the feet and hands, increased by external heat.”

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\* Died 1767, aged 61.

† Died 1790, aged 77.



This definition is rather exceptionable. The external cause here implied, is, evidently, cold ; but this can be considered only as the exciting cause of the disease. The latter part of the sentence is confused, and not consistent with the positive sense of the first ; for, unless the cause be evident, it cannot be declared external. “Pain about the joints” is too general a description. “The increase of pain by external heat” belongs only to the acute form of the complaint.

*Barthez*, the most copious author\* among French writers on gout and rheumatism, considers that both diseases are humoral ; that they are very similar in their nature ; and that they require the same principles of practice.

In describing rheumatism, he advances the following obscure theory : “Je pense que le caractère particulier de l’inflammation dans le rhumatisme, qui la distingue des autres espèces d’inflammation, consiste en ce que les fibres musculaires y sont affectées d’une manière plus forte et plus durable que dans l’état naturel, et dans les autres

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\* *Traité des Maladies gouteuses*, 1802.



sortes d'inflammation, de l'action de cette force vivante que j'appelle *force de situation fixe* des molécules des fibres douées de mouvemens toniques."

And further, "On voit en quoi l'état rhumatique du sang diffère de son état gouteux. L'un et l'autre intercepte la formation naturelle des humeurs excrémentitielles. Mais dans le rhumatisme, s'il ne participe de la goutte, ces humeurs ne subissent point au même degré que dans l'état gouteux, une décomposition terreuse." In the latter part of this description, M. Barthez evidently alludes to the concretions of urate of soda, which never take place as a consequence of rheumatic action, and only in certain individuals from gout.

M. Goupil, in his recent work, entitled "*Exposition des Principes de la Nouvelle Doctrine Médicale*," condemns the distinction between gout and rheumatism, which he finds other authors and myself to have made. After reciting the several points of agreement between the two diseases, he thus concludes :

"Malgré tous les motifs qui ont engagé les médecins à séparer la goutte du rhumatisme articu-



laire, l'identité de ces deux formes de la même affection est donc bien démontrée." I believe that this indifference to the nice, but real distinction, which exists between gout and rheumatism, prevails among French physicians.

*Dr. Good*, in his elaborate work "On the Study of Medicine," chooses, as his generic term for gout, rheumatism, and white swelling, *arthrosia*,\* and describes two species,† acute and chronic; and the four following varieties: *α. Artuum*, articular rheumatism; pain chiefly felt in the joints and muscles of the extremities. *ε. Lumborum*, lumbago; pain chiefly felt in the loins, and mostly shooting upwards. *γ. Coxendicis*, sciatica; pain chiefly felt in the hip joint producing emaciation of the nates on the side affected, or an elongation of the limb. *δ. Thoracis*, spurious pleurisy; pain chiefly in the muscles of the diaphragm, often producing pleurisy of the diaphragm.

This author does not investigate the nature of

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\* From *ἄρθρον*, articulus, a joint.

† He defines gout, *arthrosia podagra*; but, in his nosological description, makes no provision for acute gout, commencing in other parts of the body; so that *arthrosia acuta* is a term equally applicable to acute gout and acute rheumatism.



rheumatic inflammation, and speaks of it as "an inflammatory disease of the muscles" in general terms. It is evident that a more accurate pathology is required.

It would, I conceive, be as useless as endless to quote from the various modern authors who wrote indiscriminately on gout and rheumatism, before the time of Dr. Cullen.

These diseases were invariably considered by them as arising from defluxion, and it is in vain to look for valuable doctrine amidst a mass of unsound pathology. I have judged it however necessary in a treatise of a systematic kind, to offer the preceding concise historical view of the principal medical opinions which have been published on the subject.

It appears to me that the following definition will embrace the most distinctive characters of Rheumatism.

*Pain of a peculiar kind, usually attended with inflammatory action, affecting the white fibrous textures belonging to muscles and joints, such as tendons, aponeuroses, and ligaments; the synovial membranes of the bursæ and tendons; and nerves;*



## 12 AUTHOR'S DIVISIONS OF RHEUMATISM.

*occasioned by the influence of variable temperature, or by direct cold, or by moisture.*

The species of Rheumatism are two, Acute and Chronic ; the former of which may be divided into the acute and sub-acute.

### THE ACUTE RHEUMATISM.

Pain, with inflammation of the ligaments of the joints, and usually those of the larger joints ; or, of tendons and aponeuroses ; of the sheaths of tendons ; of the bursal membranes ; and, of nerves ; aggravated by motion ; for the most part attended with external redness of a bright colour ; and with fever which has exacerbations, and sometimes distinct remissions ; with copious partial perspirations, commonly of an acid odour ; and high coloured urine, depositing abundantly, lateritious sediment.

### SUB-ACUTE RHEUMATISM.

As the term implies, this form of the complaint is intermediate in its symptoms, between the high constitutional fever which belongs to the acute rheumatism, and the absence of fever which is cha-



racteristic of the chronic. It is much more solitary than the acute, and it often happens that the bursal texture is alone affected, and especially in the knee ; but any of the other textures just described, and also branches of nerves, may be affected with partial inflammation in such a degree as not to disturb the constitution with much fever.

#### THE CHRONIC RHEUMATISM.

Pains affecting the ligamentous and tendinous textures, synovial membranes, and nerves, without external signs of inflammation, and unaccompanied by fever, but aggravated by motion.

#### GENERAL OBSERVATIONS ON RHEUMATISM.

The ligaments of the joints of the upper and lower extremities, the tendons and their sheaths, the tendinous parts of muscles, the aponeuroses or fasciæ, which may be considered as tendons expanded on a wide surface, and the bursæ mucosæ, are the parts of the body most commonly affected by rheumatism.

Nerves are also often affected, but less fre-



quently. It does not happen as a common occurrence, that, in the large joints, the synovial membrane is affected by rheumatic inflammation ; and when it does happen, it is more by the extension of the disease from the parts nearer to the surface, than primarily. It is also unfrequent for the cartilaginous structure of a large joint to be affected, except in a secondary manner. In the fingers and toes, but in the fingers especially, these intimate parts of a joint are more readily involved by the rheumatic inflammation.

*Mr. Brodie*, in his most valuable Treatise on the Diseases of the Joints, distinguishes the rheumatic inflammation of the synovial membranes, from the chronic and more serious affection which attacks the synovial membrane of the joint, and frequently the cartilage also in a destructive degree. Such chronic disease attacks a single joint ; and and if, in the first instance, the symptoms should appear to be of the nature of rheumatism, we may consider that the rheumatic action was only introductory to the more permanent symptoms ; serving as an exciting cause to another kind of inflammation in a part so predisposed.



This author observes, "Inflammation of the synovial membranes may take place as a symptom of a constitutional affection, when the system is under the influence of rheumatism; where mercury has been exhibited improperly, or in too large quantities; and a variety of other circumstances. But in these cases, the disease for the most part, is not severe; it occasions a preternatural secretion of synovia; but does not in general terminate in the effusion of coagulable lymph, or in the thickening of the inflamed membrane. Sometimes it attacks the greater number of the joints at the same instant, and even extends to the synovial membranes, which constitute the bursæ mucosæ and sheaths of the tendons. At other times it leaves one part to attack another, and several joints are affected in succession\*."

The ligaments which are most commonly susceptible of the rheumatic action, are those which are situated nearest to the surface, in the joints of the upper and lower extremities, and those

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\* Pathological and Surgical Observations on Diseases of the Joints, p. 19.



## 16 TEXTURES MOST AFFECTED BY RHEUMATISM.

which belong to muscles and tendons. The ligaments of the vertebræ, which are most external, are sometimes affected; and now and then, the rheumatism appears to be confined to the superficial ligamentous fibres of a single vertebra.

In the acute rheumatism, the ligaments, the bursæ mucosæ, the tendons with their sheaths, and the tendinous parts of muscles, are the textures almost exclusively affected by the primary inflammation; ligaments most frequently, and now and then distinctly: but in very severe cases it usually happens, according to my observation, that these different textures are affected in common.

In chronic rheumatism, the bursæ, the sheaths of the tendons, the aponeurotic expansions, are more commonly affected than the ligaments.

I believe that the fleshy part of muscle is rarely, if ever, attacked in common with the tendinous parts, by the primary inflammation; and seldom even secondarily, except after a long continuance of symptoms. When the aponeurosis is the seat of disease, tenderness is felt from pressure on the muscles; and, either in this case, or when the tendinous portions are inflamed, pain



is necessarily felt upon the action of the muscles. But this fact is readily explained, without the necessity of concluding that the disease exists in the whole of the muscles.

Dr. Carmichael Smith, in his ingenious paper on inflammation,\* which has the merit of considerable originality, defines the acute rheumatism to be "an inflammation of the muscular fibres." This is evidently too limited a view of the subject, if not an erroneous one. From frequent careful examinations, by pressure of the whole course of a muscle, and grasping its substance, when its functions have been affected by severe rheumatism, the conclusion has been clear in my mind, that the fleshy part has not been the seat of the complaint. By considering the fugitive character of rheumatic inflammation, the immediate recovery of the muscular action when rheumatism ceases, and the more permanent character of the symptoms when the substance of a muscle is affected with disease, I am led to the persuasion, that any inflam-

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\* Of the different kinds or species of inflammation, and of the causes to which these differences may be ascribed. Medical Communications, vol. ii.



## 18 TEXTURES MOST AFFECTED BY RHEUMATISM.

matory process from rheumatism, which may occasionally take place in the true muscular fibre, is a remote consequence only, and not a primary form of the disease.

If the muscular fibres were the common seat of rheumatic inflammation, we might expect to find an increase of bulk in the muscle, in correspondence with the effects of increased vascular action in other parts ; but in fact, the muscles of a rheumatic limb usually become smaller, which may be explained from their disuse ; but we discover an increase of bulk in the tendinous and bursal textures, when affected either with acute or chronic rheumatism. It would seem, from the soreness which the patient sometimes describes as if fixed in the bone itself, that the periosteum is occasionally the seat of rheumatism.

The nerves themselves are sometimes separately affected. Of this form of the disease, the *ischias nervosa*, as it has been called, or *sciatica*, is the clearest example. It is most probable that the filaments of a nerve, together with its covering texture, are attacked by rheumatism, as its functions become suddenly and completely deranged ;



and the pain which shoots along the nerve is often quite electrical.

In cases in which the tendons and their sheaths are much affected, the contiguous nervous branches sometimes partake in the complaint; tingling sensations are felt in a distressing degree; and, when the fingers are thus affected, the sense of touch becomes impaired.

The fibrous parts of the more important and delicate organs are not exempted from rheumatism; as we see occasionally in rheumatic disease of the heart, of the dura mater, and in the eye.

The diaphragm is occasionally affected in acute rheumatism. When the inflammatory diathesis is active, serous membranes may be attacked with inflammation; but I should consider such affections in the light of coincidence, or consequence, and not as examples of the primary action of rheumatism.

#### THE SYMPTOMS OF ACUTE RHEUMATISM.

Acute rheumatism is usually distinguished by a great uniformity of symptoms. As attendant upon the inflammatory attack, and constituting what is commonly denominated the rheumatic fever, they



are those principally which usher in the phlegmasiæ in general : The most remarkable of these symptoms I shall now enumerate.

The attack is first announced by cold chills, succeeded by flushings of the face, and rather by partial, than universal heat of the body ; by nausea, or vomiting ; a sense of general lassitude ; and depression of spirits. The patient complains of universal soreness and aching pains. The local symptoms either appear simultaneously with the constitutional disorder, or follow in quick succession. At first, the lower limbs are usually chosen by the disease, as the situation of the attack ; and, in general, the knees and the ancles become affected at once, or in very quick succession. The external appearance varies according to the particular parts which are inflamed. If the bursæ be the seat of inflammation, there is considerable swelling, but scarcely any discolouration of the skin, and sometimes not the slightest alteration in this particular. If the tendons and the ligaments be affected, there is more or less redness of the surface, which is usually of a vivid colour, and is often in patches. When the tendons are inflamed, their sheaths are



excited to increased secretion, and they are found distended.

The patient is fixed almost immoveably by pain. Except in cases of the utmost urgency, he feels occasional ease, when perfectly at rest ; and often describes a sense of burning heat and aching of the parts, rather than of severe pain ; but on the attempts to move, which an excessive state of restlessness renders necessary, such agony is produced in the effort, from the propagation of pain along the whole course of the muscles, and more especially in the immediately affected parts, that the nature of the disease and its intense sufferings are at once fully portrayed.

The sympathetic fever now becomes permanently established, and is indicated by increased frequency of the pulse, which is very full, but seldom possesses such hardness as when an internal viscus is inflamed. On the contrary, the artery appears remarkably dilated, and usually makes the pulse what we call "soft." To these particulars may be added, a burning heat of the skin ; a fur of the tongue, which is at first white, but soon thickens and becomes darker, varying according to the



condition of the digestive organs ; excessive thirst ; a costive state of the bowels ; a scanty secretion of urine, which appears very deep in colour, sometimes depositing a copious brick-dust sediment very early in the disease ; but, in other instances, is of almost a blood-red colour, without sediment. Pain of the head is usual, and, in severe cases, a tendency to delirium also occurs, but not so commonly as in the internal phlegmasiæ.

It is, in a remarkable degree, the disposition of rheumatic inflammation quickly to change its seat, and the abatement of sufferings in one part does but prepare the way for the other parts to be similarly affected. This transfer of the symptoms takes place with a surprising rapidity ; and with more frequency of change than in the gout.

The smaller toes and fingers are less liable to the inflammation than the great toe and the thumb ; but the last phalanges of the fingers (the knuckles) are often affected ; and indeed, in a severe attack, both the upper and lower extremities are so involved in the disease, that scarcely any one of the joints is entirely spared. Although the order of attack is chiefly to be referred to the relative sus-



ceptibility of parts, and to the particular circumstances of exposure, in which the body has been accidentally placed ; yet it may be stated as a general fact, that the lower limbs, at the ancles or knees, are affected first, and the upper last ; although in the progress of the illness the upper and lower extremities become occupied by the disease at the same time. When, therefore, the shoulders and the hips, in addition to other parts, are under the power of acute rheumatism, we may form an adequate idea of the helplessness and sufferings which are produced.

The pain which is felt is variously described, according to the nervous sensibility of the individual, and also with the relation to the particular textures which are affected. The greatest intensity of pain and consequent fever take place, when the ligaments are the seat of inflammation. The tendons excite pain and constitutional sympathy in the next degree ; and, least, the bursæ. The kind of pain is described as that which might be supposed to arise from the gnawing of a dog, or the use of a screw, or of a cutting instrument, in and about the joint ; together with sensations of



## 24 DESCRIPTION OF ACUTE RHEUMATISM.

burning heat, throbbing, pricking and shooting ; the former sensations most prevailing when the deeply seated parts are affected ; the latter, when parts nearest to the surface are inflamed.

If the diaphragm, or the tendinous portions of the intercostal muscles, or of any of the muscles of the chest be seized with rheumatic inflammation, great difficulty of breathing ensues, attended with spasmodic sensations of the most painful kind, affecting the chest.

Dry and burning heat of skin is alternated with profuse perspirations, which are usually of a partial nature. These discharges from the skin are seldom productive of advantage, and very commonly serve only to increase debility. In general, they have a remarkably acid smell.

The anxious physiognomy of a patient labouring under rheumatic fever, indicates at first sight the severity of the disease ; and, together with this language of the features, there may be observed a peculiar relaxation of the skin of the face, shewing itself in a greasy kind of moisture. The countenance is pale and flushed alternately. The affected parts occasionally receive some abatement of pain, as the



integuments become swollen, because the deeply seated textures are partially relieved from stricture, by the propulsion of blood into the cutaneous vessels, and by serous effusion into the cellular membrane, as manifested by a pitting of the integuments on pressure. But when swelling arises from secretion of coagulable lymph (fibrine), the inflammation is urgent, and pain increases ; the distended parts are then unyielding, and exceedingly tender.

The duration of an attack of acute rheumatism depends on several circumstances : on the degree in which the exciting cause may have been applied ; the extent of the disease ; the nature of the individual constitution ; and, not least, upon the medical management which is adopted. In a case of which the issue is favorable, the fever and pains are brought to a close at the end of the third week ; and, in slight attacks, at an earlier period ; but when the course of the disease is untoward, a period of two months scarcely serves to exhaust its power in producing even acute symptoms.

Amendment is often succeeded by severe relapse, and instead of a favorable convalescence taking place when the acute symptoms subside,



and fever passes away, the disease either degenerates into the chronic form, or becomes stationary in one or more parts, producing sub-acute inflammation.

The favorable critical signs which announce the decline of the disease, are, the state of the skin becoming natural ; the pulse subsiding both in frequency and action ; the tongue clearing ; the alvine excretions losing their unnatural foetor and dark colour ; the urine becoming lighter, its sediment precipitating wholly to the bottom of the vessel ; the rheumatic pains materially abating, and being no longer constant ; the local signs of complaint lessening in the same proportion.

Upon this foundation of improvement convalescence begins ; and, although even in the most favorable instances occasional rheumatic pains continue to distress the patient, chiefly excited by variations of temperature, and changeable weather, yet, by degrees, complete health returns.

In less healthy constitutions, after the entire removal of fever, general weakness, flying pains, or permanent tenderness in the parts which were affected during the acute form of the disease, sometimes attended with exceeding stiffness and disability,



continue for an indefinite length of time, constituting a very distressing form of chronic rheumatism.

In the first edition of my Treatise on Gout, &c. which I published in 1816, I added a short Essay on Rheumatism, and proposed certain principles for an analytical investigation of the nature of this disease. I stated that we should consider "the particular part of structure affected; whether as being ligament; aponeurosis; tendon; bursa; nerve; periosteum; or other texture; and the morbid state of its organization."

I am confirmed in my early opinion, that rheumatism receives considerable modification of symptoms; and also requires a corresponding modification of treatment, from the influence of the particular texture which may be affected.

In the preceding representation of the sufferings of acute rheumatism, it is consolatory to observe that it is seldom fatal; indeed, never in my experience, unless there has been metastasis to an internal vital organ.

On this point, Dr. Haygarth, an excellent practical writer, declares, that his professional experience proved the rare fatality of acute rheumatism,



“ while it remains in its proper seat, the muscles and joints, and when not combined with other mortal maladies.” “ Out of 170 cases, he met with 12 which had a fatal termination, either by a translation of the inflammation to the brain, lungs, kidneys, stomach, or some other vital part, or as being found in combination with other diseases.” He drew the following conclusions : “ First, that seven fatal cases were combined with phrenitis : Secondly, that three fatal cases terminated with sudden and violent diarrhœa, two of them combined with phrenitis, and the third with convulsions : Thirdly, that, in one case, when the pain and swelling receded from the joints, the patient was attacked with shortness of breath, cough, and spitting of blood, which soon terminated fatally : Fourthly, that, in three of the fatal cases, the patients were so faint and languid, that they were apprehensive of falling into a syncope : Fifthly, that, in two cases, miliary eruptions accompanied the rheumatism : Sixthly, that, in one, there was a suppression of urine : and Seventhly, that one was combined with a typhus fever, and apthæ of the tongue and throat.”



In the tabular abstract of diseases treated by Sir Gilbert Blane,\* at St. Thomas's Hospital, during a space of ten years, the number of rheumatic cases is stated to be 751 ; 547 men, 204 women ; of which large number, ten men and three women died. In his private practice, out of forty-four cases of acute rheumatism, one proved fatal ; and one also, in seventy-five cases of chronic rheumatism.

The same distinguished Physician, in his paper "On the Health of the Navy, mentions, that in 195 cases of rheumatic fever five proved fatal."

Sir James Macgriggor, in his elaborate paper "On the Diseases of the Army,"† states, that in 68090 cases of rheumatism two only were fatal. These were cases which occurred in the regimental hospitals in the Peninsula, from the 21st of December, 1811, to the 20th of June, 1814. We may reasonably suppose that there was a much smaller proportion of severe cases in the military hospitals, than occurred in the hospital practice of Dr. Haygarth and of Sir Gilbert Blane.

The late Dr. Bateman, in his "Reports on the

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\* Medical and Chirurgical Transactions, vol. vi.

† Ibid.



### 30 CONSEQUENCES OF ACUTE RHEUMATISM.

Diseases of London," enumerates 389 cases of acute rheumatism at the Carey Street Dispensary, received during a space of twelve years, and observes, that he had never met with more than two fatal cases in his whole practice.

#### OCCASIONAL CONSEQUENCES OF ACUTE RHEUMATISM.

The termination of acute rheumatism in the chronic form of the complaint will sometimes happen in unhealthy constitutions, even when the most correct treatment has been pursued ; but such untoward result is more commonly to be ascribed to the injudicious employment of general bleeding, or to the want of proper caution in the patient against cold, or damp, on the commencement of his convalescence.

As an occasional occurrence in acute rheumatism, the heart becomes affected with pain and symptoms of inflammation. When this dangerous disease occurs suddenly, we may consider the pericardium to be its seat. The action of the heart itself becomes in the greatest degree irritable, and the susceptibility of the nervous system is roused im-



mediately to the highest pitch. Now and then, this serious disease appears to take place as a retrocession of the rheumatic action, pain and inflammation subsiding in the joints ; but, usually, the rheumatic action continues in almost the same force in the limbs, and rarely, if ever, wholly subsides. Sometimes the rheumatic affection of the heart takes place as a chronic complaint, without manifest signs of inflammation. In this manner it may occur as a remote consequence of acute rheumatism, in connexion with the rheumatic diathesis, unaccompanied by fever. It happens also, that, during the acute symptoms of general rheumatism, the dura mater is attacked with inflammation. Severe pain of the head, attended with delirium, takes place, and the symptoms quickly shew a tendency to produce effusion between the membranes, and a fatal termination.

The harassing influence of severe and protracted acute rheumatism is sufficient to break down the powers of the strongest constitution ; and must, proportionably, still more exhaust and enfeeble those who are delicate. The weakness and morbid irritability, so induced, favour the introduction of



### 32 CONSEQUENCES OF ACUTE RHEUMATISM.

any other constitutional disease, which may occur according to the particular predisposition of the individual. I may name, for example, the following diseases ; phthisis pulmonalis ; intermittent fever, if the patient be even slightly exposed to miasma ; chorea Sancti Viti, or other nervous affections. The particular diseases, which I here mention, I have known to ensue.

The local consequences of the active inflammatory action are important, and of common occurrence. As I have already observed, it frequently happens that the acute disease rather subsides than completely passes away, and leaves behind that tenderness and aching of parts which is connected with inflammatory action of vessels, although insufficient in degree to produce sympathetic constitutional fever. Also, aching pains and great disability of parts may exist without any discoverable signs of inflammatory action. In some instances, a debility of parts, almost amounting to paralysis, follows the acute disease.

The superficial ligaments ; the tendons ; the aponeurotic expansions ; and the bursæ, are the textures which remain in a morbid condition ;



seldom, however, producing much pain, except upon motion of the limb. The ligaments usually become thickened, and lose their elasticity. The tendons are rigid; their sheaths thicken; and their secretion becomes too dense to serve the healthy purpose of lubrication. The same description is applicable to the bursæ.

The capsular ligament (in the more modern language of anatomy, called the synovial membrane) of a large joint being so much beneath the surface, is seldom affected with rheumatism, primarily; and not often, secondarily. I have already quoted Mr. Brodie's practical observations on this subject.

I consider it a very rare circumstance for the cartilaginous structure to be attacked by the same primary rheumatic inflammation which affects the ligaments; but, in the ultimate consequences of protracted and inveterate rheumatism, the cartilage sometimes becomes involved in the disease, even to the extent of change of structure. I believe that, in this structure, erosion and partial absorption constitute the principal kind of morbid alteration proceeding from rheumatism.



The fingers present the most frequent instances, and the most remarkable, of such distortion and impeded use, as indicate diseased organization in all the textures which compose the joint. The fingers are usually turned outwards; but I know one case in which the fingers of one hand are turned inwards, and of the other outwards. In the living subject, I have met with cases in which the knees have been almost wholly locked with ankylosis; and the extraordinary grating, produced on attempting to move the joint, seems such as might arise from a roughened state of cartilage.

When I was at Paris, I was informed, by M. Breschet, of a case of acute rheumatism which proved fatal; and as many unusual symptoms had arisen in the course of the disease, an inspection after death was made. In and about every affected joint there was found a considerable quantity of purulent secretion. This case furnishes an exception to the general rule, that rheumatic inflammation does not terminate in suppuration.

Among my cases, I shall mention one of partial rheumatic inflammation terminating in suppuration, the particulars of which have



been communicated to me by another medical friend.

In my account of chronic rheumatism, I shall recur to the subject of changes of structure, which are produced by the slow and gradual influence of the disease.

PREDISPOSING CAUSES.

*Hereditary structure.*—The existence of hereditary structure may be assumed as an occasional predisposing cause of rheumatism ; but it is obvious that the inference can be drawn only from general reasoning, and observation of facts, and not from positive demonstration. We see instances in which the disposition is strongly prevalent in the same family. Although similar circumstances in regard to climate and local situation, and in the general habits of living, may serve as one explanation why members of the same family should be particularly liable to rheumatism ; yet we meet with a marked illustration of the fact, in seeing that one or more individuals of a family are subject to rheumatism, who have changed their place of residence in early life, and have been led into such new cir-



cumstances, that we may reasonably infer the existence of a disposition derived from hereditary structure.

*Age, bodily structure, and temperament.*—The early years of infancy are, for the most part, exempted from rheumatism. I have occasionally seen a young child affected with acute rheumatism; but it is comparatively of rare occurrence.

Dr. Heberden observes, “The rheumatism has appeared so early as in a child of only four years old; and I have seen several affected with it at the age of nine years.” In the Medical and Chirurgical Review for October, 1817, Dr. Davis, in his report of the Universal Dispensary, relates that “at the end of March, and in the beginning of April, several cases of acute rheumatism were admitted in children of three, four, five, six, and seven years of age, and upwards.”

Aged persons are liable to the chronic form of the complaint, but seldom to the acute. As life advances, the fibrous textures, in common with other parts of the body, lose much of their original sensibility, and are not so susceptible of inflammatory action. Bichat makes the following re-



mark. " Dans les vieillards, le système fibreux devient de plus en plus dense et serré."

As a general statement, I consider that the age most prone to acute rheumatism, is from fifteen to thirty ; and to the chronic, as an original complaint, from after thirty to sixty ; but those who have become constitutionally rheumatic, may continue to suffer occasionally till the latest period of life. Sometimes, even aged persons are affected with sub-acute rheumatism, which rarely affects more than one part at once ; causing, in some instances, sympathetic disturbance of the constitution, but not to that degree which constitutes the rheumatic fever.

*Cæteris paribus*, it may be stated that persons who have a thin skin, and especially those who perspire readily from bodily exertion, are the most liable to rheumatism. These circumstances have more influence than the relative bulk of the body.

Dr. Cullen remarks, that those who possess the sanguineous temperament are the most disposed to acute rheumatism ; but this requires the concurrence of other remote causes. Whether the acute or chronic form of rheumatism follow, as a conse-



quence of exposure to cold or moisture, is chiefly dependent on the peculiar temperament and constitution of the individual.

*Whatever causes induce debility*, either generally or partially, predispose the body to rheumatism, by diminishing the power of resistance under circumstances of exposure. A continued fever, leaving the body in a state of debility, produces this preparatory condition ; as also the effects of a course of mercury, which causes, in a remarkable degree, a ready susceptibility of the influence of cold. An attack of rheumatism so induced, if affecting ligaments or synovial membranes, will most probably be either acute or sub-acute ; in other words, it usually affects ligaments, and the tendinous structure in many parts, exciting general fever ; but sometimes it attacks only one or more of the textures belonging or contiguous to a single joint ; and, in such instances, it does not materially disturb the constitution. Should the complaint fall upon a nerve, it will most probably assume the chronic form.

*Local injuries.*—Dislocation of a joint, a strain, or contusion, are causes which predispose the



ligaments, or tendinous textures, by diminishing healthy power of resistance ; and in such partial affections, the diseased action is either sub-acute or chronic.

*An unhealthy state of the digestive organs, deranging the nervous system, and increasing the general susceptibility of the constitution, becomes the occasional indirect source of general, or partial, rheumatism.*

*Either sex* is liable to the complaint ; but as men are the most exposed to wet and cold, they will form the largest class of rheumatic invalids. Dr. Haygarth states, that “ More males are attacked with the acute rheumatism than females, in the proportion of ninety-eight of the former to seventy-three of the latter, or nearly as four to three.” He adds, that “ In Holland, the rheumatism among females is comparatively seldom ; though the air is extremely moist. They are much more domesticated in this country, and their dress much warmer.”

*The season of the year* is a predisposing cause, more or less active in its influence, according to the prevailing degree of moisture and variableness



of temperature. I believe that in the upper classes of society, rheumatism occurs least frequently in winter, and most in autumn ; because, in winter, persons are more careful in their clothing, and in avoiding exposure without adequate protection ; and also the weather is usually less variable than in the other seasons ; but, in autumn, the summer clothing is still worn, or changed capriciously and carelessly ; while, in our changeable climate, the temperature and fine sky of summer often intermix in the same twenty-four hours with the cold and damp of the approaching winter. I must here observe, that I have met with some of the severest cases of rheumatism, both acute and chronic, in the midst of summer, in consequence of exposure to the cold of the night, or to wet, after free perspiration during the heat of the day.

Among the labouring class of society, rather the largest proportion of cases of acute rheumatism appears to take place in winter. The following is the calculation which I have made from Dr. Bateman's reports, alluded to at p. 30. From February to May, ninety-seven ; May to August, ninety-nine ; August to November, eighty-six ; Novem-



ber to February, one hundred and five. This was the total number of cases of acute rheumatism admitted in the respective quarters for the space of twelve years.

*Climate and particular residence.*—Rheumatism will be found most frequently in that climate which is the most variable ; and this circumstance is of more importance than particular extreme temperature, or constant relative dryness and moisture. Probably, therefore, this disorder prevails more in the northern parts of Great Britain than in any quarter of the world. Boerhaave describes rheumatism “as a disease allied to the gout and scurvy, and being very common in England.”

Locality of climate is a point extremely worthy of consideration. High situations, exposed to the north and the east are unfavorable to the rheumatic invalid ; and a residence near to water, especially that which is stagnant, and one contiguous to undrained lands, which proves a greater source of mischief if much surrounded by wood, predispose the constitution to rheumatism amongst other disorders.

*Constitution of the atmosphere.*—Not only does



the acute rheumatism vary in its character, in common with other inflammatory complaints, as affecting the inhabitants of the metropolis and the country, but a modification of the greatest importance also arises from the particular constitution of the atmosphere, differing in the same situations, and the same seasons, in different years. The predisposing influence, therefore, of damp and cold in producing rheumatism, must be considered in connexion with this point, as it regards the exact character of the disease, which, in such circumstances, would most probably be endemic.

The prevailing constitution of atmosphere in particular districts, should be estimated not only as predisposing the inhabitants to rheumatism, but as materially tending to modify its type.

*Lancisius*, in an interesting treatise, “*De Nativis, deque Adventitiis Romani Cæli qualitatibus*,” &c. gives an account of endemic phlegmasiæ which prevailed at Rome in the remarkably severe winter of 1719 ; and he mentions that acute rheumatism affected great numbers of those who were exposed to the atmosphere.

*Too perspirable a state of the skin.*—Some per-



sons are prone to perspire from very slight exertion, and consequently are particularly susceptible of the influence of damp and cold upon the surface of the body ; an effect which may be attributed to a deficiency of power in the cutaneous nerves and blood vessels to resist the sedative and specific action of cold.

## EXCITING CAUSE.

The influence of *variable temperature*, experienced either generally or partially, is the only exciting cause of rheumatism ; and this happens through the medium of moisture, or, of cold air alone ; or more especially of both conjoined, operating upon the body wholly, or in part, according to the particular susceptibility of the patient ; and, according to circumstances of exposure, and insufficient protection in clothing. In common language, we use the term cold ; but this is of relative signification ; and the cause of injury consists rather in the influence of variable temperature, than of absolute cold, upon the body when wholly in a state of relaxation. For example, exposure to the night air after much perspiration from dancing ; a stream of cold



air upon some part of the body when placed in a hot room, especially if the skin be relaxed ; for, in connexion with this state of the surface, the several textures beneath are more readily disturbed in their functions ; and we may reasonably argue that rheumatism is produced, not from the mere suppression of perspiration, but from the disturbance in the œconomy of the cutaneous circulation, which is quickly communicated to the fibrous textures, or synovial membranes, or nerves. Any check to the temperature and sensibility of the skin, so permanent, that healthy reaction does not take place, may be considered as an application of cold, calculated to excite rheumatism.

Dr. John Brown, in his peculiar language, states that rheumatism is a phlegmasia, “ consequent to heat succeeding to cold, or so alternating with it as to prove the more stimulant.” The cold of the east wind, especially if joined with moist atmosphere, is a well-known cause of injury to the rheumatic invalid.

Many familiar examples might be mentioned of the partial effect of a difference of temperature applied to one part of the body, while the rest is



protected and warm. Walking in thin shoes on damp ground, or even on cold pavement, sometimes leads to rheumatism in the extremities. Some parts suffer more quickly than others from a loss of habitual warm clothing. In this way, the loins appear to be very sensible. If in the summer season the under blanket be removed, a lumbago may be felt on first rising in the morning. The influence of cold is most hurtful to the body during sleep. When travelling in a night coach, the sleeping with a current of air, from the window being down, is very hazardous ; or, if the air be admitted only by one window, the exposed side of the body may alone suffer. Marching soldiers in a campaign, who may be compelled to sleep " under the canopy of heaven," must be very liable to rheumatism. Witness the report of Sir James M'Greggor, p. 29.

Dr. Haygarth, in his clinical history, makes the following instructive statement of the manner in which cold had been caught, in twenty-three cases of rheumatism. " Acute rheumatism is ascribed, 1st, to cold water poured on the head, shoulders, and breast ; 2nd, to exposure to cold when in a



sweat ; 3rd, to a damp bed ; 4th, to a damp room ; 5th, to a damp shirt ; 6th, to lying on the ground ; 7th, to being wet to the skin ; 8th, to travelling in hard frost ; 9th, to frost and snow ; 10th, to being wet to the skin twice ; 11th, to a damp house ; 12th, to being wet to the skin with sleet ; 13th, to dancing ; 14th, to wading in the river ; 15th, to wet feet ; 16th, to walking in the fields after dancing ; 17th, to being wet ; 18th, to change from worsted to cotton stockings ; 19th, to exposure to cold air, when sweating ; 20th, to wading for half a day ; 21st, to wet feet ; 22nd, to a damp bed after dancing ; 23rd, to sitting in a current of air after walking to excite sweat.”

It is commonly remarked, that clothes wetted with salt water, do not render the body so liable to be affected with rheumatism, as when wetted by rain ; and I have been informed, that sailors sometimes purposely wet their clothes with seawater on this account. The explanation is, that the salt water, being less volatile than fresh, does not produce such quick evaporation ; and much effect may be allowed to its more stimulating property.

The injurious influence of cold and moisture is



remarkably counteracted by a vigorous state of the circulation, supported by enthusiasm of mind ; by the stimulation of fermented liquor, not carried too far ; and, lastly, by exercise, so that even long continued exposure may often be made with perfect impunity, if the circulation be generally and uniformly maintained by strong muscular exertion. The almost certain occurrence of rheumatism from sleeping in a damp bed is familiar to common observation.

PROXIMATE CAUSE, AND GENERAL THEORY OF  
THE SYMPTOMS.

In this section, I shall find it necessary to recapitulate some of my former observations. The ancient writers being satisfied with applying the doctrines of the humoral pathology to all the diseases of the joints, no distinction was understood between the nature of gout and rheumatism. Dr. Cullen remarks of rheumatism, that “ it has been imputed to a peculiar acrimony ;” but he properly considers, “ without reason.” In a subsequent paragraph, he expresses his opinion, that “ the cause of acute rheumatism appears to be ex-



actly analogous to that of the inflammations depending on an increased afflux of blood to a part, while it is exposed to the action of cold." He adds, "but there seems to be also in the case of rheumatism, a peculiar affection of the fibres of the muscles."

I do not desire to enter in this place upon the general doctrine of inflammation, which is of such difficulty and extent, that it would lead me too far away from my more immediate subject.

It may be stated, that the predisposition to rheumatism consists in a deficiency of healthy tone in the textures, connected with joints and muscles, and in nerves, so as to be affected in this peculiar manner by the influence of variable temperature. If we lose sight of the humoral term "rheumatism," we shall come to the simple fact, that, in a condition of susceptibility, cold, or sudden reduction of temperature, makes a particular impression on the vessels and nerves near the surface, and produces a painful affection of certain textures, which is attended with more or less of inflammation; the phenomena of which are so far of a peculiar nature, that we may either consider the disease *specific*,



inasmuch as the symptoms differ in their constituent character from those produced by other inflammations ; or, we may view the effect in the light of common inflammation, modified on the one hand by the nature of the exciting cause—the external one, Cold—and, on the other hand, by the influence of the particular species of textures which become affected.

Upon the first point which I have suggested, it may be argued, that, in reference to any of the phlegmasiæ, the particular part which becomes the seat of disease is either weaker in its original organization, or from accidental causes, than other parts which maintain their health : for example, in different individuals, the cause of injury being in each instance the same, the tonsils, the mucous membrane of the trachea, the pleura, or the lungs, may become the seat of disease, according to particular predisposition. In common language, the disease falls on the weak part. Indeed, in the most healthy person, it will scarcely happen that each texture of the body is equally endowed with strength and healthy power ; or, whatever may be the original perfection of struc-



ture, accidental circumstances will not tend to derange the economy of all parts in an equal degree. The absolute difference of organization in a part possessing tone sufficient for the performance of healthy functions, and in the one that falls short of that condition, cannot be demonstrated by the most skilful anatomist. Even in parts which have been considerably deranged in function, we often search in vain for the morbid evidence in the inspection after death.

It may be stated, that rheumatism in its true primary character, as being a diseased condition of certain textures, is not so distinctly a constitutional disease as gout, which requires a specific state of constitution. From exposure to vicissitude of weather, any individual may become affected with rheumatism ; but, with regard to gout, the exciting causes which readily induce the disease in one person, may fail to do so in another, although applied in the fullest degree. If I may so express myself, the rheumatism is a disease external to the system, which becomes affected in a secondary manner by sympathy ; but, in turn, it reflects back its influence upon the external parts.



Dr. Johnson, the ingenious author of a work "On the influence of the atmosphere, &c." seems to object to my opinion, that the fever in acute rheumatism is symptomatic ; but I confess myself not convinced by his arguments. Do we not see that general fever (pyrexia) is chiefly proportioned to the nature and extent of the parts affected ? If a single bursa be the sole seat of disease, the constitution does not actively sympathize. General fever, in this case, does not take place ; but it is the invariable attendant on an inflammation of ligamentous or tendinous structure, existing at the same time in different joints. Although it occasionally happen, in point of time, that pyrexia precedes the development of the local rheumatic inflammation, may we not consider that the constitution has taken such early alarm from a ready sympathy with the textures upon which the offending agent, Cold, has certainly made its impression, notwithstanding the characteristic symptoms do not become all at once developed ? Yet the interval between the occurrence of the constitutional fever and the local signs of inflammation is never long ; and the ge-



neral fever, inasmuch as it is truly rheumatic, keeps pace entirely with the local disease.

Dr. Haygarth was careful to collect facts "to ascertain what length of time elapses between exposure to cold and moisture, and the first symptoms of disease." He observes, "This I shall denominate the *latent period*, being analagous to what I have called the latent period of infectious distempers. Out of twenty-one cases, only four exceed the period of forty-eight hours. The shortest time noted is half an hour; but I believe that the cause and effect are sometimes connected together without any interval of perfect health."

Dr. Fordyce, in his first Dissertation on Fever\*, makes the following observation. "So in rheumatism, afflicting a particular part of the body, or taking place in various parts by metastasis, it happens frequently that the pulse becomes hard, full, strong, and frequent; the tongue is covered with a white crust; loss of appetite; great increase of all the symptoms in the evening, and great relaxation in the morning; but these all depend upon

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\* Page 21.



the rheumatism affecting particular parts of the body ; and if all the topical affections should be carried off, then these appearances which have been enumerated, likewise subside, and are not therefore, according to the rule laid down, a fever.”

It is, however, in an analytical point of view, only, that I assign to rheumatism more of a local than a constitutional character. In a true comprehensive pathology, no disease, not the most simple, can be pronounced so local as to be independent of the constitution. The effects of local injury from mechanical causes become proportioned to the degree of constitutional influence ; an important part of pathology so ably illustrated by Mr. Abernethy. It is, indeed, in an inanimate machine, alone, that a part of the structure can be affected without impairing, more or less, the use and convenience of the whole.

Rheumatism, in common with gout, affects those textures which are not prone to the suppurative inflammation, as ligaments, bursæ, tendons, and nerves ; but contiguous textures occasionally become affected to such a degree, as that pus is secreted by the vessels. I apprehend, that in such



instances, which are very rare, the cellular membrane, which is so universally interposed throughout the body, becomes secondarily affected in more than an usual degree. We see the hand swollen, with much redness arising from rheumatic inflammation ; so that, to the inexperienced eye, the appearances would seem to threaten abscess, whilst of this result there might not be the smallest danger. This state of the integuments is secondary.

We are also to keep in view the distinct and constitutional disposition of every specific inflammation. Rheumatic inflammation is not disposed to terminate in suppuration ; but, when it is active, fibrine (coagulable lymph) is often secreted by the inflamed vessels ; and, from the tendons and ligaments forming an adhesion to the integuments, one species of anchylosis follows.

In gout, I may observe, abscess is not so uncommon ; but, in all the instances which I have seen, the vessels act in a peculiar manner ; and, instead of furnishing ordinary pus, only, they secrete also the urate of soda.

If the textures, of which I have spoken, become



injured by mechanical causes, the covering parts also experience injury, and suppurative inflammation most probably ensues as a consequence. But, when we consider the manner in which cold produces its injurious agency, and the nature of the textures which it disturbs, we should, a priori, expect to find a disease *sui generis*.

The remarkable manner whereby inflammation in rheumatism suddenly transfers itself from one part to another, is peculiar to this disorder and to gout; but, since it possesses appropriate characters distinct from gout, and distinct from other diseases, we may, I conceive, with great propriety, pronounce it to be *specific*.

The term rheumatism is inappropriate, as involving false theory; but I shall retain it for the sake of convenience, it having been so long established by universal acceptance.

From the foregoing considerations, we are now led to the conclusion, that the definite character and the amount of the rheumatic symptoms will be formed, chiefly in reference to the affection of particular textures, and the extent of such affection.

When many of the ligaments and tendons are



inflamed, high constitutional irritation arises, as also does fever. Next in order, the tendons excite this sympathy, those, namely, which are confined in sheaths: for tendinous fibre and aponeurotic expansion may be inflamed without much disturbance of the constitution; as we observe exemplified in the most painful lumbago, or in the form of complaint commonly called, stiff-neck. Redness of the surface appears almost exclusively when the superficial ligaments and the sheaths of the tendons are affected. Bursal inflammation is seldom accompanied with discoloration of the skin. Pain is felt most acutely accordingly as the parts affected are deep seated, and abates very much in proportion as swelling occurs; because the deeply seated blood vessels are then less full, and the most sensible parts are relieved from extreme tension. In the severest examples of sciatica we rarely discover any external sign of complaint.

It is important to keep in view the primary and the secondary nature of the disease. I have concluded that inflammation of the synovial membrane of a joint, or affection of the cartilaginous structure, when connected with rheumatism, is secondary;



and that such also is inflammation of the serous surface of the membranes of the brain and heart, ensuing from previous inflammation of a rheumatic nature, attacking the fibrous part of the membranes of these important viscera—the dura mater and the pericardium.

I believe that the lymphatic vessels are rarely affected with rheumatic inflammation; and never, except secondarily. The characters of such inflammation are distinct. The lymphatics may be traced in their course to their recipient glands, by their tenderness to the touch, by their wiry hardness, &c. Often we have to notice fine red lines on the surface.

When, in the acute rheumatism, the inflammatory diathesis is brought into full action, any one of the internal organs of the body may become seized with inflammation, merely as the result of a general inflammatory state of the system, united with a particular predisposition to disease in one or another viscus. For example, pneumonia, or enteritis, may thus occur as coincident with the affection of the limbs, having but little, or possibly not any, of rheumatic character. On the other



hand, true rheumatic inflammation may attack the fibrous membranes of the brain, or fibrous textures of the heart, in conjunction with rheumatism of the joints, which does not cease; or the local action may be suspended, and the internal one arise as a retrocession of disease.

As another and very materially modifying cause of the nature and amount of symptoms in every case of rheumatism, the influence of individual constitution may be mentioned.

#### DIAGNOSIS.

In the characters of acute rheumatism, it appears to me that there is sufficient clearness to distinguish it from every other disease, except acute gout; and this diagnosis does not present itself at once to the eye, because the external appearances often bear a close resemblance; although, in well-marked cases, the experienced inquirer will, for the most part, discriminate even between the local characters of the two diseases. Our doubts, however, usually vanish when we consider all the concurrent circumstances. It seldom happens that acute rheumatic inflammation confines itself to one part;



which limitation is usually observed by the gout in its first attack. The attack of rheumatism is evidently the result of exposure to cold or wet ; but the first attack of gout commonly takes place without such an exciting cause. The gout requires a peculiar state of constitution, and for the most part is preceded by premonitory symptoms of disorder in the digestive organs, or in the nervous system. When the patient is under the age of puberty, it is, a priori, a fair probable assumption, that the disease is rheumatism ; and if the subject be a female, the assumption amounts almost to a certain conclusion. At this early period of life, I have not known gout to occur, unless there has been hereditary predisposition, aided by improper indulgence in living, particularly in the premature use of wine. The patient's mode of living, a reference to the constitutions of the parents, and some other remote causes, are to be taken into consideration.

I have met with instances in which gout has first occurred, and has been the disease of the patient for several years ; but afterwards the attacks have been unequivocally rheumatic, in the severe acute form : and I have also witnessed the



exact reverse of this statement. Such cases have called for attentive investigation in the diagnosis. In two of the opposite examples to which I allude, the distinction was very apparent. The first attack affected the ball of the great toe with swelling and shining redness; the severity of the pain being most felt during the night, and abating in the morning early; passing off in the course of five or six days; the skin of the inflamed part desquamating. For several years this patient had occasional attacks in one or other great toe: but after a long interval of health, in consequence of continued exposure to wet on a cold day, he was seized with chills and heat alternately, lumbago, and inflammation at the ankles, knees, hands, elbows, and one shoulder, in such rapid succession, that all these parts became more or less affected at the same time. In the other case, with symptoms equally characteristic, acute rheumatism was the first disease, and which returned in about two years. Then, after an interval of four years, gout, with its clear *imprimatur* on the great toe, took place.

A gentleman stated to me, that, on one occasion, just as he was convalescent from gout, he was, after exposure to damp, seized with rheumatism



in both arms. The pain was agonizing, peculiarly gnawing, and seemed as if in the very substance of the bone. He described it as quite different from the pains of gout. I will subjoin one more example.

A young man, aged thirty, had suffered from two attacks, at distant intervals, of rheumatic inflammation of the ankle joints, with flying pains in different parts of the body. The local appearances were, patches of vivid redness, with some bursal distension; but no œdema of the cellular membrane. The sensations were, severe gnawing pains, as if in the bone, with occasional pricking and shooting; but not any sense of heat. About two months after a recovery from the last of these attacks, and during which period he had been living freely, and had suddenly acquired a fulness of habit, the gout appeared for the first time; affecting the great toe and instep of one foot. I was much interested by the clear comparison which my patient himself drew between the symptoms of the gout and of rheumatism. Now, the foot was swollen to a great size; the skin shone as if varnished, and was uniformly of a deep



red at first, and afterwards became rather purple. Finally, the skin peeled off from the whole surface. In the rheumatism, he had not found any particular intermission of pain in the twenty-four hours; but in the gout, his extreme suffering was from twelve to three in the morning; and about five he procured sleep. His sensations from gout were, "of heat, as if scalding water were poured into the joint; of throbbings, as if receiving blows; of pricking and shooting, far more intense than he had experienced from rheumatism; and, above all, at moments, he felt within the joint as if the parts were undergoing dissection." His father had been subject to gout. His only sister had suffered severely from chronic rheumatism. This young man was indigent in the early part of his life; but, shortly before the visitation of gout, he came into possession of property, had the means of indulging at the table, and thus gout, the *nobler* disease, was generated.

It is not probable that erysipelas will be mistaken for acute rheumatism, even though situated in one of the limbs. The constitution is seldom equally affected with febrile irritation. At the



seat of disease, the redness of surface is more uniform and more diffused, and the inflammation, not affecting the fibrous textures, nor the synovial membranes, scarcely interrupts the free use of the limbs. The sensation is that of much heat, pricking, and tingling; but very different from the intense sufferings of rheumatism; and, in general, the inflammation confines itself to one part. In *phlegmon*, or common inflammation, the locality of the disease, and the cause producing it being probably mechanical injury, with very moderate sympathy from the constitution, added to the marked tendency to suppuration, concur to make the distinction from rheumatic inflammation very clear.

There is one circumstance which happily distinguishes acute rheumatism from acute gout: that it is not a disease of periodical occurrence, and that it very commonly spares the patient for the rest of life, although its solitary attack may have been peculiarly severe.

#### PROGNOSIS.

So long as the inflammation in acute rheumatism confines itself to the external parts of the



body, we are free from apprehension as to the safety of the patient ; but danger, more or less imminent, presents itself when any vital organ becomes affected, whether by metastasis or otherwise ; but most when there is metastasis ; because, in this case, the fibrous textures of the heart, or of the brain, usually become the seat of disease ; and those of the heart more frequently than of the brain. If, during the rheumatic fever, the lungs be attacked with inflammation, I should not consider it as rheumatic ; for they do not possess the necessary texture for this specific affection. I should therefore rather view it as an accidental occurrence ; the inflammatory diathesis being in great force, and the patient having most probably received such exposure to cold as would favor the production of pneumonia ; as conducive to which result, we may suppose also, an inherent predisposition to pulmonary affection. When either the brain or the heart becomes affected, the danger will be in proportion to the amount of the respective symptoms : but invariably we should give a guarded prognosis. Sudden metastasis to a vital organ is too commonly the harbinger of death. But, to relieve this state-



ment, I may add that I have seen recovery take place under very desperate circumstances. When the heart becomes affected, our prognosis must be directed to the future welfare of this important organ, as well as to its escape from the immediate symptoms.

In ordinary cases, therefore, of acute rheumatism, our prognosis relates to the duration of the disorder ; and, probably, there is no disease in which, as to this point, we can give a less certain opinion. The favorable circumstances are, early relief from the active treatment which may have been employed ; the inflammation keeping its station very much in the parts first attacked ; absence of delirium, and the constitutional irritation not intense ; perspiration being general and moderate, and giving relief, instead of being partial, profuse, offensively acid, and seeming merely to occasion exhaustion ; the pulse keeping within the range of 100 or 110 in the minute, and being free from hardness ; the tongue not very foul ; the stomach\* not

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\* Dr. Heberden makes the following observation : " The degree of fever, denoted by the quickness of the pulse, does less injury to all the powers of the body, and mind, in the rheuma-



affected with urgent sickness, nor the bowels with painful irritation ; the urine, in the course of ten or fourteen days, losing its deep red appearance, depositing, at the bottom of the vessel, lateritious sediment, and, by degrees, becoming altogether clear ; the alvine discharges, in the course of the same period of time, losing their unnatural fetor and dark appearance.

The threatenings of a protracted disease will be shown in the reverse of this picture ; and more especially when the transfer of inflammation and pain quickly takes place from one part to another, again and again visiting the same parts, and being unmanageable in treatment.

#### OF THE TREATMENT.

#### The principles of treatment of the acute rheu-

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tism, than in any other distemper ; for what might be considerable enough to make others lose their senses, will scarcely make these patients lose their appetite, or shew much sign of distress, or of sinking under their illness." This description is not applicable to the constitutional effects which arise from a severe attack of acute rheumatism. We often see that there is less constitutional sympathy in acute gout, than in acute rheumatism. Commentaries, p. 398.



matism must be founded upon those considerations which are derived from just pathology, and from the sound dictates of experience. But in this expression, just pathology, how much indeed is comprised !

I have already stated that rheumatism affects many different textures ; and therefore it is incumbent on the physician to exercise his anatomical and physiological knowledge, and to reason upon the nature of the functions of the parts affected with the disease. Observation alone can enable him to estimate in what manner and degree the symptoms are modified by the structure and œconomy of different textures.

In the investigation of every case, he should inquire whether the rheumatic diathesis be hereditary, or acquired : he should acquaint himself with the peculiarities of the individual constitution, and also the patient's particular state of general health at the time of being attacked with this disease. He should scrutinize very carefully the condition of the digestive organs.

Upon these and other data, he makes his choice of particular remedies ; and, in this department,



of his knowledge, an acquaintance with the principles of pharmaceutical chemistry comes to his aid, enabling him to direct the fit combination of medicines, which may be wholly different in their nature, and which may oppose or assist each other, according to the skill of the arrangement. I need not dwell upon the value of experience in regard to a knowledge of diseases, and the efficiency of remedies.

Empirical practice, however, or the administration of some particular remedy for a particular disease, on the principle of its having succeeded in similar cases, is rational to a certain extent only. We soon learn, that a medicine which agrees perfectly with one patient, and affords him effectual relief, proves injurious to another, in the same kind of disease; and in all instances, some modification of treatment is required, from various causes, although the same *principle* of practice be kept in view. The doses of medicine, and the promptitude and decision with which every part of the treatment may be employed, will, in the most material degree, influence the result. The consideration, therefore, is not merely whether certain means



are to be employed ; the *manner* of using them is the leading circumstance which causes one practitioner to fail and another to succeed, the difficulties of a case being equal.

I shall now offer a methodical account of the chief remedies which are used in the treatment of acute rheumatism.

*Of bleeding.*—General bleeding in this disease is a remedy of great importance ; but its employment requires much consideration and judgment. If it be proper in the particular case, it is far more advantageous to resort to it promptly, than to allow delay ; because symptoms increase, and constitutional power lessens, with the progress of disease.

It may be laid down as a principle, that, as relating to the local inflammatory action merely, this is not the agent in which we should place our confidence ; for it disappoints our expectation of relieving the pain of the disease, unless as the pain and the local inflammation may be connected with the true inflammatory diathesis. In no way is a degeneracy into chronic symptoms so certainly introduced, as by that injudicious employment of general bleeding, which enfeebles the constitution, and



still leaves the rheumatic disposition in great force : Nor does the articular inflammation itself yield to the use of general bleeding in the manner which we might expect.

If, however, a patient of strong muscular fibre, and of the sanguineous temperament, be seized with acute rheumatism, in full health, an immediate and free use of the lancet is indispensably necessary. The dépletion is to be repeated until the hardness and fulness of the pulse become reduced to a state of softness and moderation.

Attaching the importance which I do to the character of the pulse, as being hard or soft, I am desirous of discussing this point more at length. There can be no difficulty in deciding upon *extremes* ; but nice shades of difference require proportionate nicety of observation. Mr. Hunter observes, “ The knowledge of the soft, the hard, and the thrill, are such as can only be acquired with accuracy by the habit of feeling pulses in these different states, and by many it is not attained, for simple sensation in the minds of any two men, are seldom alike ; and the late Dr. Hunter was a most striking instance of this ; for, though he was ex-



tremely accurate in most things, he could never feel that nice distinction in the pulse that many others did, and was ready to suspect more nicety of discrimination than can really be found\*.”

*Dr. Wilson Philip* remarks, that “those who have been much in the habit of examining the different states of the pulse, must be aware, that its hardness is most perceptible when a slight degree of pressure is employed. A certain degree, by greatly compressing the vessel, will give some feeling of softness to the hardest pulse, and a slight degree of hardness is not perceptible with the pressure generally employed in feeling the pulse. If the pressure be gradually lessened till it comes to nothing, it often happens that a distinct hardness of pulse will be felt before the pulse wholly vanishes under the finger, when no hardness can be distinguished in the usual way of feeling it†.” I submit these different observations to the consideration of the reader ; whilst at the same time I do not think that any perplexity will arise in estimating the nature of the pulse in acute rheumatism.

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\* On the Blood, &c. p. 318.

† Treatise on Indigestion, p. 28, 1st edition.



Unless the hardness be quite manifest, we should weigh with great consideration the propriety of using the lancet.

M. Laennec, in the last edition of his work, offers his opinion at length on the general question of bleeding in inflammation. He points out the great distinction which sometimes exists between the beats of the pulse and of the heart, especially in regard to force; and in any circumstances requiring a delicacy of judgment as to the power of the heart with relation to the pulse, he strongly recommends auscultation with the stethoscope. He dwells on the important circumstance, that by the examination of the pulse alone, we are at all enabled to measure the action of the left ventricle; that the pulse is sometimes *fictitiously* weak, when there is sufficient power in the heart. He declares, that “the stethoscope furnishes a rule more sure than the tact of the most able practitioners;” and he reckons this among the greatest advantages of the instrument. “Always when the contractions of the ventricles of the heart are energetic, we may bleed without fear; the pulse will recover itself; but, if the contractions of the heart are feeble, notwith-



standing the pulse has a certain strength, you must distrust bleeding\*.”

I have myself, in some critical circumstances, derived this particular aid from the use of the stethoscope ; nevertheless, we may in general trust to the experienced touch. On every occasion, we must proportion the extent of the respective bleedings to the amount of the inflammatory diathesis, to the powers of the patient, and to the relief afforded.

We shall be drawn into error if we adopt chiefly for our guide the buffy coat of the blood ; as it is a well-known practical fact, that the blood will exhibit the buffy or fibrinous coat in rheumatic disease,† even when high inflammatory action has

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\* P. 480, tome ii.

† Dr. Haygarth remarks, on the appearance of the blood in acute rheumatism, “ In thirty-one cases, the blood had an inflammatory crust, which, in some, was very dense. In three patients, it had scarcely any inflammatory appearance ; and, in one instance, none at all. It is noted, that one patient had been bled seven times before I saw him. I had an opportunity to examine the blood last taken, which continued to exhibit an inflammatory crust, yet both the fever and inflammation continued with unabated violence.” Clin. Hist. p. 40.

In my Essay on the Blood, I have given much consideration to the phenomena of the buffy coat. My experiments proved,



passed away : a surer practical indication may be taken from the form of the coagulum and its firmness. When it is exceedingly cupped, and when the inferior part beneath the stratum of fibrine is very firm, it is a presumptive evidence that the heart and arteries are labouring under that morbid contractility which distinguishes the inflammatory diathesis. A hardness of the pulse always attends this state of the blood.

The presence of the inflammatory diathesis often authorizes the use of general bleeding, even under circumstances of a delicacy of constitution, and

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that it is the consequence of an excess of fibrine in the circulating mass ; and it must, I conceive, be inferred, either that this principle is formed in larger quantity than usual in the process of sanguification, or that its ordinary distribution to the fibrous textures of the body is diminished. If we reason on the appearance of the buffy coat by itself, as an evidence, we should not, in any case of disease, make it a rule for the repeated use of the lancet ; although, as it is certainly so common an attendant upon inflammatory action, it is always instructive ; and, in some obscure forms of disease, it very materially serves to guide our opinion as to the existence of inflammatory action, or the contrary. Our judgment is always much assisted by an examination of the colour of the blood as it flows from the arm, the firmness or looseness of the coagulum, the proportion and quality of the serum, &c.



when the rheumatic symptoms do not appear to be highly inflammatory. It should not be repeated unless it afford relief, and a hardness of pulse continue.

When the remedy is successful, the patient does not complain of increased debility, as a consequence; but, on the contrary, receives relief from those sensations of oppression and febrile irritation which the inflammatory diathesis produces.

If the diaphragm, or intercostal muscles become affected in the course of the disease, causing the respiration to be performed with great difficulty and pain; and, more especially, if the heart, brain, or lungs be seized with inflammation, no time must be lost in taking blood freely from the arm; and the repetition of it will be directed by the nature and form of the symptoms, and the degree of relief experienced; our practice being conducted, in a great measure, with the same regard to principles as if the viscus were affected with idiopathic inflammation.

The remedy of general bleeding should be employed with proportionate circumspection in persons of languid constitution, in whom the cir-



culatation is excited rather by pain and general irritation, than by the true inflammatory diathesis.

In the cases which I purpose to narrate, I shall illustrate my views in regard to the use of general bleeding, and of other remedies ; and I shall conclude my present article, by making a concise reference to the opinions of some of the principal authors who have written upon rheumatism.

As the ancient writers founded their practice in arthritic disease upon the doctrines of the humoral pathology, which demanded precise rules of practice, in reference to supposed crudity and concoction, their authority upon the use of bleeding, or indeed, of most other remedies, becomes rather matter of curiosity than of practical utility ; and more particularly as it respects my present subject, from their being unacquainted with the true distinction between gout and rheumatism, as I have already explained.

*Ballonius* advised bleeding, both general and local, but not upon just principles ; as he conceived that this was the only evacuation which carried off the particular humor causing rheumatism, and which he supposed to be in the



blood. At page 6, I have quoted his praise of bleeding as being the most wholesome remedy in this disease. It is easy to perceive, from different passages in his Treatise, that the sily appearance of the blood drawn in rheumatism would lead him into erroneous practice ; and that by repeating the depletion principally, according to the indication of the blood drawn,\* he would be in frequent danger of converting the acute into the chronic rheumatism.

*Sydenham*, in his first Essay upon Rheumatism, advocates the propriety of bleeding as the chief remedy which should be employed in the cure ; and commonly directed the loss of ten ounces on the first, and the like quantity on the second day ; and, in a day or two after, as the strength might allow,

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\* Est quidem multus humor et corruptus (id quod phlebotomia declarat, nam quantumvis magnâ copiâ sanguis è brachio detrahatur, impurus et in serum putre resolutus cerni solet) ; sed tamen non adest iste motus qui est necessarius ad excitandam febrem."—*De Rheumatismo*, p. 269. The following passage is still more remarkable : "Maximè verò ad id inuitamur, quòd impurus, immò planè corruptus sanguis, in eo affectu laxatâ venâ detrahatur." p. 279.



a third bleeding ; then, interposing three or four days, according to indications derived from the age, strength, and constitution of the patient, and other circumstances, he used a fourth bleeding, as the last, unless too hot a regimen had preceded, or heating remedies been exhibited without necessity. He advised bleeding, under the impression that the disease was inflammatory, “ as indicated by the resemblance of blood which is taken away in pleurisy ; ” and from his attachment to the rules prescribed according to the humoral doctrines. He speaks of febrile and morbid matter derived to the limbs and causing the symptoms. In a subsequent short treatise “ of the epidemic diseases, from the year 1675 to 1680,” he regrets the practice of taking away blood so freely as he had before recommended ; and in a case in which he made a comparison of his modes of treatment, concludes with thus stating his change of opinion :

“ I ordered the patient to live upon whey only for four days, after which, I allowed him white bread, besides the whey, for his common food, namely, once a day, instead of dinner, till he was recovered. Contented with this slender diet, he per-



sisted in it eighteen days ; only towards the latter end, I permitted him to eat white bread at supper also. He drank a gallon of whey every day, which afforded him sufficient nourishment. At the end of this term, when the symptoms were gone off, and he got abroad, I allowed him to eat flesh, as boiled chicken, and other food of easy digestion ; but every third day, he lived upon whey only, till at length he recovered ; and, by this method, escaped the inconveniences I mentioned above, which had been very troublesome ten years before, when frequently repeated bleeding was used by my order for his cure."

On a subsequent occasion, however, Sydenham still appears to shew his partiality to the practice of bleeding.

*Sir John Pringle*, in his account of the diseases of the army, represents the frequency, in several campaigns, of acute rheumatism, and its successful treatment by repeated bleedings. He says, "that when the rheumatism was attended with an inflammatory swelling of the joints, sweating was improper, and the cure was only to be obtained by repeated and almost daily bleed-



ings, till the patient was without fever, and the pains were either entirely removed, or became easier. And in this course, we may proceed the more boldly, as those that are subject to the distemper, are generally in the vigor of life, and are either plethoric, or at least able to bear great evacuations. Add, that frequent bleedings weaken the body, perhaps, less in this disease than in any other\*.”

*Dr. Cullen* considered blood-letting “to be the chief remedy of acute rheumatism†.” He remarks, “The blood ought to be drawn in large quantity, and the bleeding is to be repeated in proportion to the frequency, fulness, and hardness of the pulse, and to the violence of the pain. For the most part, large and repeated bleedings during the first days of the disease, seem to be necessary, and accordingly have been very much employed : but to this, some bounds are to be set, for very profuse bleedings occasion a slow recovery : and if not absolutely effectual, are ready to produce a chronic rheumatism.”

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\* See page 182, 8vo. edition.

† First Lines, par. 463.



*Dr. Fowler\**, in his Medical Reports on the effects of different remedies in the treatment of acute rheumatism, offers the following observations. "If, after the first operation of blood-letting, any particular part of the body should become more distressingly painful than the rest, it will in general be found more eligible to apply leeches to the part affected, as a local evacuant, than to repeat the operation with the lancet."

"The obvious useful effects of general blood-letting in the acute rheumatism are, a speedy abatement of rheumatic pains, and a mitigation of the rheumatic symptoms."

"Of eighty-seven cases of acute rheumatism the lancet was employed in forty-one, and the effects, carefully collected from a tabular view of the cases, arranged for the purpose, appeared in the following order : Three cases were cured chiefly by it, seven were much relieved, seven moderately relieved, twenty but little relieved, and four received no benefit."

*Dr. Heberden†* observes of bleeding in acute

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\* Died 1801, aged 65.

† Died 1801, aged 91.



rheumatism, "that it has been much trusted to, and seems to be plainly pointed out in young persons of vigorous health, who have contracted this illness by the common causes of inflammatory distempers, such as being exposed to cold air when they were heated with labor." He adds, "but, as much as I have been able to observe, the benefit of large and repeated bleedings is in most cases far from being clear and unquestionable. One of the worst rheumatisms which I remember immediately succeeded a most profuse bleeding at the nose, which continued so long as almost to exhaust the patient, and to bring his life into imminent danger. Something like this happened in a second instance\*."

*Dr. Haygarth* did not undervalue the importance of bleeding in acute rheumatism, even after he adopted his favorite treatment with Peruvian bark. He observes, "In most of the cases of acute rheumatism blood was taken from the arm by the lancet, before I received the interesting intelligence of the efficacy of the Peruvian bark in this

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\* Commentaries, p. 401.



fever. Even subsequent to the time when this important information was communicated, I did not neglect this proper and powerful remedy ; though I gradually employed it seldomer, and in diminished quantities, as the successful use of the bark increased my confidence in its salutary effects\*.”

*Dr. George Fordyce*,† one of the ablest physicians that ever wrote or practised, relates, that “ while it was the practice to remove the general inflammation by bleeding, metastasis frequently took place to the interior parts of the body, and destroyed the patient. This accident in the author’s practice, during the last fifteen years, has rarely happened. In this period he has entirely left off bleeding in acute rheumatism, and has not lost above two or three patients, although he has treated several hundreds in this disease‡.”

The very strong objection to general bleeding here quoted from such high authority, must be considered with reference to the fact, that a large proportion of the patients was treated by *Dr. Fordyce* in *St. Thomas’s Hospital* ; and, that an

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\* *Clinical History*, &c. p. 42.      † Died 1802, aged 66.

‡ *Third Dissertation on Fever*, p. 18.



hospital in London is the least favorable of all others for the use of the lancet in this disease. There is always less probability of its being required in the treatment of rheumatism for those who live in a large city, than for those who live in the country. I have learnt from my professional friends who practise in the country, that they usually find it necessary to bleed with freedom in the commencement of acute rheumatism ; but it is evident, from the various high authorities which I have quoted, that, on all occasions in this disease, we must be discreet in the use of this remedy ; and more especially, when the constitution of the patient appears to be delicate and irritable.

The late *Dr. James Gregory*,\* whose opinions must always be quoted with the highest respect and deference, usually found bleeding necessary in the beginning of acute rheumatism. He remarked, that “ sometimes a single bleeding from fifteen to twenty ounces, so broke the force of the disease, that the use of internal medicines soon effected a cure. It is, however, to be added, that bleeding sometimes disappoints us, and the repetition of it

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\* Died 1821, aged 68.



is not to be advised at all hazards, as in cases of peripneumony.”

“ In getting rid of the fever, it sometimes throws the patient into a worse situation, and one of equal suffering, namely, into the chronic state\*.”

In the reports on the Diseases of London, published by the late celebrated *Dr. Willan*,† we find the following observations in reference to particular cases of rheumatism, not of the genuine inflammatory kind, which were prevalent in the spring of 1798. “ Some practitioners, however, continue to let blood in most cases of acute rheumatism, thinking themselves justified in their mode of practice by the sizzly appearance of the blood. The same principle might lead them to empty the whole sanguiferous system ; for, every time blood-letting is repeated, the blood becomes more and more dense‡ and sizzly. I have further observed, that, by bleeding repeatedly, the pains, swellings, and febrile symptoms were not only ag-

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\* MS. Lectures.

† Died 1812, aged 55.

‡ This expression is incorrect ; for, according to my experiments, the specific gravity of the blood lessens after repeated detractions, as we might indeed expect. The most dense blood is healthy blood.



gravated at the time, but often protracted indefinitely ; at least, I have seen them continue under such a mode of practice upwards of two months.”

*Mr. Bedinfield*, in his *Compendium of Medical Practice at the Bristol Infirmary*, gives the following testimony to the utility of bleeding : “ A great number of cases of acute rheumatism are annually admitted into this hospital. Nothing has been found so effectual for their relief as copious venesection. When twenty, thirty, or forty ounces of blood have been taken away for three or four days in succession, cases of the most violent description have been very speedily cured. Cases of the same description, treated with antimonials, the compound powder of ipecacuanha, and other sudorifics, have been as generally very slow of recovery.”

*Barthez*, in his “ *Traité des Maladies Goutteuses*,” advises general, and local bleeding in acute rheumatism, according to the ancient doctrine of defluxions ; a theoretical principle of treatment, calculated to withdraw us from a faithful observation of symptoms, and the effect of remedies. The following quotation will give a sufficient view of his opinion on the subject of bleeding :



“ Pour affoiblir la fluxion du sang, qui produit et entretient l’inflammation rhumatique, la saignée est un remède presque toujours nécessaire, et qu’on emploie généralement avant tout autre. Cette évacuation doit être plus forte et plus répétée, lorsque le rhumatisme a été précédé d’un état de pléthore, causé par la suppression d’une hémorrhagie habituelle. Dans le traitement de ce rhumatisme aigu, on doit toujours craindre d’abuser de la répétition des saignées, comme on l’a fait si communément depuis Sydenham.” “ La saignée, si on doit la répéter, doit être d’abord révulsive, et ensuite dérivative. Le choix des veines qu’il faut ouvrir, doit être toujours réglé suivant les loix du traitement des fluxions.”—Tome i. p. 322.

From a review, therefore, of the several arguments in favor of the remedy of general bleeding in acute rheumatism, and against its employment, we are led to the conclusion, that when the indications for its use are clear and decided, we should resort to it promptly and without fear ; but, for the reasons which I have already advanced, we should weigh well the propriety of its repetition ; and more especially its frequent repetition.



There are also some collateral points of consideration to be kept in view ; as, the age, and still more, the constitutional power of the patient ; the type of prevailing inflammatory diseases ; the season of the year ; the constitution of the atmosphere ; and, as affecting the general principle, the topography of the district, when rheumatic disease is endemic.

*Mr. Pearson* of Clapham (who was surgeon to the Hull General Infirmary, and the King's Naval Hospital, for nearly sixteen years) informs me that, some years ago, a low typhoid fever prevailed in Hull and its neighbourhood for several months. All the febrile diseases which then occurred appeared to be more or less stamped with the character of this epidemic. None of the rheumatic fevers bore bleeding. The treatment found to be successful was "the use of a few purgatives, with infusion of senna, salts, and colchicum, so as to reduce the action of the circulation ; and then, even while the skin was hot, the pulse quick, and the pain and swelling considerable, to give Peruvian bark according to Dr. Haygarth's plan."

I learn, from another medical friend, that "in



the rheumatic fevers of the fenny districts, free bleedings were commonly followed by remittent or intermittent fevers. One moderate bleeding was, usually, all that could be borne, although the local symptoms were severe, and the constitutional disturbance was very great. He took the earliest opportunity of resorting to the use of bark, and avoided bleeding altogether in most instances."

Every individual case must certainly be treated according to its own particular symptoms ; but, in forming general principles in our mind, we ought to exercise a wide range of reflection.

In reference to the season of the year, we are led to think very differently of the influence of spring upon the constitution, from that of autumn ; and particularly as regards the treatment of acute rheumatism by general bleeding.

*Emetics.*—When we have reason to consider that the stomach is loaded with undigested food, or suffering irritation from vitiated secretions, we may direct a full emetic at the commencement of acute rheumatism, with certain expectation of benefit. It is a proper remedy, on the same principle, that at the first formation of every febrile



disease, the action of vomiting, by its influence on the circulating system, and by the complete relaxation of skin which it tends to produce, moderates the force of the symptoms which are forming ; and, further, it often renders material service as an evacuant. For a patient of delicate constitution, ipecacuanha alone will be preferable ; but, in most instances, we should choose the more certain efficacy of a combination of tartar emetic with ipecacuanha.

*Dr. Haygarth* states, that it was his usual practice in acute rheumatism, as a preliminary to the use of the bark, “ to give either the antimonial powder, or tartarised antimony, generally the former, till the stomach and bowels were sufficiently cleansed.”

If the patient be seized with threatening symptoms of an acute attack, shortly after some convivial occasion, on which he has indulged freely and improperly, the administration of an emetic will, in all probability, be highly useful. But, should inflammatory action be urgently present, it should be abated by the use of the lancet, before we have recourse to full vomiting.

*Cathartics and diuretics.*—The advantage of



making a derivation from the general circulation, by the medium of the alimentary canal ; and also by producing a free action of the kidneys, is in general as remarkable in the treatment of acute rheumatism, as of other inflammatory diseases. The only objection which can be offered to the use of purgative medicines, is on account of the pain and difficulty attendant on a frequent change of position. In general rules of treatment, general instructions can alone be stated. The difficulty in question must be obviated as much as possible by the good offices of the nurse ; and we should not, upon light grounds, forego the very material benefit which is to be obtained from the use of purgative medicine. In some cases, we shall find it most useful and convenient to administer the dose or doses of purgative medicine, which we wish to use for the twenty-four hours, in the morning early ; and to follow up its action by the use of medicines which allay fever and pain. In other instances, when the situation of the patient will admit of change of position, without too severe an aggravation of pain, it may prove more useful to give aperient doses at short intervals ; using, with



this view, a combination of medicines of different qualities, but harmonizing well in power, towards the reduction of the disease.

I have been much satisfied with the effects of a draught composed of the carbonate of magnesia, carbonate of potash, sulphate of magnesia in small doses, tartarised antimony, lemon juice in fit proportion to neutralize the carbonate of potash, and the acetum colchici, with some agreeable distilled water and syrup. The draught may be taken in effervescence, or otherwise. The addition of the tartar emetic is exceedingly valuable; for my increasing experience with this medicine convinces me that it is one of the most useful remedies which we can employ for the removal of inflammatory action; and in proportion as we employ it with judgment, so do we diminish the necessity of using the lancet. Its influence is much more permanent than that of digitalis; which, although on many occasions to be regarded as a most valuable auxiliary in the treatment of inflammation, is yet liable to the objection of its restraining action, rather than subduing inflammation, and masking, rather than curing the disease.



Upon the first administration of the tartar emetic, it usually sickens to the degree of causing vomiting ; but this effect is useful, and it is surprising how quickly the stomach accommodates itself to this medicine, so that it ceases even to nauseate. The maximum and minimum doses of the tartar emetic, which I usually employ in the combination just mentioned, are one grain, and one-eighth of a grain ; and of the acetum colchici,\* a drachm and a half, and half a drachm.

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\* I observe, with much regret, that a strong prejudice is growing up against the use of colchicum, which, if it be properly administered, I am well persuaded, is one of our most valuable medicines. I have, in my different publications, endeavoured to point out the mild and innocent nature of the acetic preparation. The proportion of the root used, is less by  $\frac{1}{8}$  than that directed by the Pharmacopœia for the wine ; and also, its qualities are modified and rendered milder by the action of the diluted acetic acid as the menstruum.

I have stated the grounds on which I reject the employment of the strong preparations in the treatment of gout, and that I use even this mild one, only in alliance with other medicines : from which medicines I expect the curative agency, and from the colchicum, the palliative assistance only. As the rheumatism is not, like gout, a periodical disease, we are not equally restrained from resorting to moderate doses of a preparation stronger than the acetic, namely, the wine of the root, or of the seeds ; but I should not persist long in



In concurrence with this draught, I prescribe calomel with the compound extract of colocynth, at night, for the purpose of producing a more free excretion of bile than would be effected merely by the saline aperient. It also assists in reducing the inflammatory diathesis, and increases the action of the absorbent system. The range of dose which I prefer, is from one grain to five, and I am not aware of any superior advantage from employing larger doses. In urgent cases of acute rheumatism, I continue the use of calomel until the gum becomes slightly affected\*.

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its use, from an apprehension of its irritating, by too free an administration, the mucous membrane of the alimentary canal, and doing injury to the nervous system. An objection to the employment of colchicum, because it is a medicine of power, has no more force than that which might be offered against all other active medicines; and without which, the means of the physician would be reduced almost to the expedients of the nurse.

\* Medical opinion appears to run into extremes, in regard to the use of mercurial preparations. Some are fond of employing calomel in the largest doses with freedom; and others see great propriety in prescribing the minutest doses of the *pilula hydrargyri*. I imagine that here, as in most other extremes, we shall be right in preferring the middle course. But, I have yet to allude to a third class of *opinionatists*, who affirm that



It will usually be expedient to add to the pills just mentioned, a portion of opium, or a dose of extract of poppy, or of hyosciamus, in order to delay the action of the bowels, and assist repose. It may be convenient to join with these ingredients a full dose of opium, for the purpose of relieving, or pre-

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mercury, in any way, is scarcely ever required, and is, for the most part, hurtful ; rendering injury, rather than benefit, to the functions of the liver ; and even to its structure !

Such notions do not deserve any serious refutation ; but it is to be regretted, that respectable authority should ever be lent to the propagation of prejudice against valuable medicines. We may safely assert, that calomel is one of the most efficacious, useful, and suitable medicinal agents which we can employ in many circumstances of disease ; and that it, or the oxides of mercury, used as alteratives, often confer the most decided benefit in changing the disordered functions of the digestive organs. I add my voice in reprobating the abuse of mercury ; but I am equally earnest in advocating its proper use. It has been said of old, that there is a fashion in physic, and it is too true. For the versatility of the patient, we must be prepared ; but, where the character of a medicine, which has stood the test of a long course of years, becomes impeached by those who should be the careful guardians of science, we must call in question either the integrity of the motive, or the soundness of the judgment.

As one comment on the proper use of calomel, I must certainly say, that it should never be made a *nursery* medicine. I have no doubt, that the infantile constitution is often much injured by the indiscretion of the parent in this particular.



venting pain. If we are not making use of tartarised antimony in the medicine which we give at regular intervals, it will be beneficial to add it, or James's powder, to the pills. The omission of the compound extract of colocynth may be sometimes advisable.

In regard to the freedom, and continuance of this treatment, we shall inform ourselves, in great measure, by a regular observation of the nature of the excretions, alvine and urinary; for, while the fæces are unnaturally dark, and the urine is dense, of a deep colour, turbid, or even depositing lateritious or pink sediment, the fluid portion being clear, it is incumbent upon us to make daily employment of purgative medicine. When the excretions acquire a natural appearance, the acute symptoms of inflammation usually subside, and then our active treatment must be exchanged for the occasional use of a sufficient quantity of an aperient for the regulation of the bowels; at the same time, taking advantage of the absence of fever, to introduce the trial of tonic medicine, and restorative diet.

When the stomach is in too irritable a state to allow the continuance of the draught just men-



tioned, it will be expedient to give, in the morning early, a mixture with senna, salts, and manna, rendered palatable by the addition of some aromatic water, &c. Subsequently, at regular intervals, saline medicines will be useful.

Such, according to my experience, is the decided advantage of following up a course of purgative, or aperient and alterative treatment, when it is not forbidden by any remarkable debility of the constitution. When this exists, a different method of treatment must be adopted. Should there be sufficient remission of fever, it would be important to administer the sulphate of quinine, or some form of bark ; but, of this practice I shall speak under its proper head.

To the above exception to the perseverance in the active purgative treatment, I may add, that when the delicacy of constitution, which I have mentioned, is attended by a continuance of febrile irritation, which militates against the employment of any preparation of bark, we shall find it expedient to be contented with the moderate measures of using saline antimonial medicines, and sedatives, and the application of leeches for the



relief of particular parts which may be affected with severe pain.

Even in these circumstances, we shall usually derive advantage from the effects of a mild alterative every night, or on alternate nights, consisting of a grain or half a grain of calomel, a grain of James's powder, with a small portion of crude opium, or four grains of extract of poppy, giving some mild aperient in the morning; or, under some circumstances, directing a lavement. If the bowels be easily irritated, four or five grains of the hydrarg. c. cretâ, or pilul. hydrargyri, will be preferable to the use of calomel.

As a rule of practice, I hold it to be very important in the treatment of acute rheumatism, carefully to avoid producing mercurial fever, which tends to aggravate rather than relieve the rheumatic symptoms, and produces a new state of distress scarcely inferior in its sufferings to those of the original disease.

*Tartar emetic.*—I shall treat of the use of this medicine as a separate article, that I may introduce some of the observations and directions given by



M. Laennec\* in his second edition of *Traité de l'Auscultation Médiante et des Maladies des Poumons et du Cœur*. He observes (p.512, t.1.), "that, with the exception of inflammation of the lungs, there is no inflammation in which the use of tartar emetic is more efficacious than in articular rheumatism. The medium duration of the disease under the influence of this remedy, is from seven to eight days; and we know that it continues from one to two months under the treatment of bleeding, or la méthode expectante. But the tartar emetic has succeeded least favorably when muscular and articular rheumatism prevail at the same time." He adds, "I have, however, sometimes observed, though rarely, relapses of the articular inflammation without having discontinued the use of the medicine; and, in two cases, I have been obliged to interrupt its use, because the stomach would not accommodate itself so as to retain it (*parceque la tolérance ne pouvait s'établir*)."

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\* The recent death of this justly distinguished Physician, is a loss to the profession, the public, and to Medical Science, not easy to be repaired. Having received from him, when at Paris, much valuable information and kind attention, I can bear testimony to his excellence as a Physician, Philosopher, and Friend.



M. Laennec mentions that he had not yet employed the tartar emetic in simple inflammation of the internal membrane of the intestinal canal ; but had not been deterred from using it, either in cases of pneumonia or articular rheumatism, when complicated with redness of tongue, a very marked pain in the epigastric region and other parts of the abdomen, increased by pressure, attended with urgent diarrhœa and tenesmus ; and he had seen all these symptoms disappear, under the influence of the tartar emetic, as rapidly as those of the principal disease. In explaining the *rationale* of this medicine, he argues, “ that its most constant immediate effect, when given in full doses, is the rapid resolution of an inflammation ; and, sometimes, in an equally rapid manner, an absorption of the effusion consequent to the inflammation. Sometimes a manifest fluctuation at the knee, arising from articular rheumatism, is removed by absorption in six hours. These effects cannot be attributed to a derivation ; for they are never more remarkable than when there is neither vomiting nor any evacuations. Perspiration, or abundant flow of urine, sometimes accompanies this resolution ; but these effects are by no means constant. It seems, there-



fore, that the only explanation which can be offered in the present actual state of our science, is to admit, that the tartar emetic increases the activity of the interstitial absorption in the cases mentioned ; and particularly, when there exists in the economy an excess of energy, of tone, or of plethora.”

On the mode of administering the medicine in the treatment of pneumonia, the following extracts will sufficiently exemplify the practice of M. Laennec, in regard to the treatment of acute rheumatism. Immediately after bleeding, he directed, as the first dose, a grain in two ounces and a half of a light cold infusion of orange flowers, sweetened with half an ounce of syrup of mallows, or orange flowers. He repeats the dose every two hours for six times, and then waits for seven or eight hours, if the occasion be not too urgent, and if the patient be inclined to sleep. In urgent circumstances, the medicine is continued without interruption, till the symptoms abate : and sometimes he raises the dose\* from a grain and a half to two grains, employing the same quantity of vehicle.

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\* In another passage, he remarks, “ that it is very common to witness the accommodation of the patient to the medicine ;



“Many of those affected with inflammation of the lungs, support the medicine administered in this manner without vomiting, and without purgative effects. Others, and these form the greatest number, are affected with two or three vomitings, and with five or six actions of the bowel, on the first day; but on the successive days, they have only moderate evacuations, and sometimes not any more. When once *the tolerance* of the medicine is established, it often happens that the bowels become constipated, requiring the use of aperients.”

“When the evacuations continue on the second day, or, when on the first there is reason to apprehend that the medicine will not be borne without difficulty, it is right to add to the six doses, which are to be taken in the twenty-four hours, one or two ounces of the syrup of white poppy. In general, the effects of the tartar emetic are never more happy than when it does not produce any kind of evacuation; and yet sometimes the amendment which it causes, is accompanied with a general sweat.”

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so that when he arrives at the point of convalescence from pneumonia, with the appetite of health, he takes very increased doses without sensible inconvenience.”



He proceeds to describe the merits of this valuable medicine, pointing out how materially it serves to abridge the necessity of bleeding, and that it produces more permanently good results ; the liability to relapse being so much less than when the symptoms have been treated by bleeding.

Hitherto, in the treatment of rheumatism, I have almost invariably used the tartar emetic in the manner described in my own preceding account.

*Sudorifics.*—When, in the particular case, we do not find it judicious to persist in active purgative treatment, we are naturally led to the use of medicines which act more distinctly upon the skin ; while at the same time we should not lose sight of the benefit which will always arise from maintaining a free action of the kidneys. But the sudorific plan of treatment, as it may be called, not unfrequently disappoints our expectations ; as the warmth of regimen necessary to keep up full sweating, very commonly tends to aggravate, rather than relieve, both pain and fever.

The profuse perspirations which occur spontaneously in this disease, are too apt to distress and exhaust the patient exceedingly, without pro-



ducing a corresponding mitigation of the symptoms ; and a troublesome miliary rash sometimes ensues ; but these, I must observe, are in general partial ; and, opposed to which, a relaxation of the skin, moderate and uniform throughout the body, if it can be procured, is to be desired as equally soothing and remedial.

Tartarized antimony, in such doses as the stomach allows, given in a saline draught, with nitre, and occasionally with the addition of syrup of poppy, or the compound powder of ipecacuanha in a saline draught with nitre, may be mentioned as the most useful medicines for our purpose. With some patients of languid constitution, the volatile saline will be preferable to that with the fixed carbonate. We may choose between the citrate and the acetate of ammonia, joining with either, small portions of antimony or other medicines, according to particular indications. The patient will often prefer taking the draught of this composition in a state of effervescence.

*Narcotics and Sedatives.*—The use of opium, as the most important of our sedative medicines, is an eminent point of consideration in our study to re-



lieve the intense sufferings of acute rheumatism. An active state of inflammatory diathesis must be removed by the means already detailed, before we can with any propriety employ opium with freedom, if at all. I have seen permanent delirium, and serious aggravation of fever, produced by the premature administration of opium. It indeed usually happens that opium does not even relieve pain when given during any considerable state of inflammatory action; and this will always be found an important point in practice.

A due attention must also be paid to the functions of the bowels, the kidneys, and the skin, in order that we may be enabled to seek the advantages which opium is often so happily capable of affording. No contra-indication, therefore, being present, we are to decide upon the particular preparation, and its combination with other ingredients. Most commonly the severest pain takes place during the night, and this also is the period at which it is most desirable to interpose the aid of narcotics; for nature becomes the more exhausted, if repose be denied at the season when most wanted and expected. But if all the indica-



tions of treatment are correctly fulfilled, we may also, with every propriety, direct an opiate dose at any time during the day, when pain is urgent. I can recommend, from much satisfactory experience, the following mixture.

R. Potassæ Carbonat. gr. cviii.  
Succ. citric (recentis), ℥ii.  
Mist. Camphoræ, ℥iiss.  
Liquoris opii sedativ. ℥iiss ad ℥ii.  
Syrupi tolutan. ℥ss.  
Antimon. tartarisat. gr. i. ad gr. ii.

M.—Fiat Mistura.

Of this mixture, one, two, or three table spoonfuls should first be taken, according to the degree of pain ; and a dose should be repeated every hour or two, till relief is obtained. I may observe, of opium, that the acetate of morphine is the least stimulating preparation, and, that given in a saline draught with camphor mixture and a small portion of hydrocyanic acid, it will sometimes succeed better than any other form, relieving pain effectually, and not causing head-ache or confusion. The dose of the acetate is from a quarter of a grain to a grain ; and of hydrocyanic acid in this mixture, from one to two drops ; to be repeated as the occasion may require.



The effects of opium are, in a very remarkable degree, dependent upon the influence of pain ; so that persons who are exceedingly incommoded by even a very small dose, under ordinary circumstances, can bear without inconvenience a large quantity, when suffering much pain. There is this charity in disease, that it allows a free use of its appropriate remedy.

With some few individuals, however, so completely does the nervous system refuse to accommodate itself to the influence of opium, that we are compelled to resort to the trial of weaker narcotics. In some cases, and especially when the inflammatory diathesis does not prevail, and general rheumatic pain, and consequent irritation predominate, the following draught will be found beneficial.

R. Liquoris Ammon. Acetat.  $\mathfrak{z}$ ss.  
 Vini Colchici,  $\mathfrak{m}$ xx. ad  $\mathfrak{z}$ ss.  
 Syrupi papavaris,  $\mathfrak{z}$ i.  
 Mist. Camphoræ,  $\mathfrak{z}$ i.—M. Fiat haustus sexta vel octava quaque hora sumendus.

It has appeared to me, that the wine of the seeds of colchicum is milder than the wine of the roots ; but that the latter can be more relied upon



for its efficacy. It will, occasionally, be advisable to prescribe this kind of draught at bed time only. If it happen that the use of colchicum is not suitable in any form, we may be led to the choice of the compound powder of ipecacuanha\* in a saline draught, giving it with more or less frequency, as the symptoms may require.

The weaker narcotics, as henbane, conium, and poppy, cannot be relied upon for the relief of acute pain, although they may be competent to relieve moderate pain, and more especially to

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\* The following is the original formula of Dr. Dover ; and I learn from Sir Everard Home, that it affords a far preferable medicine to the powder now directed by our Pharmacopœia : “ Take of opium, one ounce ; salt petre and tartar vitriolated, each four ounces ; ipecacuanha, one ounce ; liquorish, one ounce. Put the salt petre and tartar into a red hot mortar, stirring them with a spoon till they have done flaming ; then powder them very fine ; after that slice in your opium ; grind these to a powder, and then mix the other powders with these. Dose, from forty to sixty or seventy grains in a glass of white wine posset, going to bed. Cover up warm, and drinking a quart or three pints of posset drink while sweating.” See *Dawson on Rheumatism*. No “flaming” takes place in the above process, as we might indeed suppose from the nature of the salts. The proportion of opium in this preparation is as 1 to 11 ; in the formula of the Pharmacopœia, as 1 to 10 ; but the dose here directed is much too large.



allay irritation and restlessness ; but, with this latter view, I have more confidence in the properties of the genuine lactucarium, or lettuce milk, which may be given in a dose of from three to six grains. Stramonium (prepared from the seeds) was strongly recommended by the late Dr. Marcet, as an occasional substitute for opium. In my experience, it has not produced such satisfactory results as one or other form of opium joined with antimony ; but, in other parts of this treatise, I shall have occasion to speak more particularly of this medicine.

With some patients, labouring under acute rheumatism, every kind of narcotic proves unfavorable in its effects ; and saline antimonial medicines, with mild aperients and occasional alteratives, alone succeed ; joining, probably, the influence of general or local bleeding, or both. The inconvenience attending the use of opiates, to which I have just alluded, may arise from two causes ; peculiarity in the constitution of the patient, which forbids the influence of any narcotic medicine ; or, the countervailing irritation which arises from the inflammatory diathesis. In the



former difficulty, I have often seen the best effects produced by the administration of a lavement with tincture of opium and a few ounces of water, in quantity from twenty to ninety minims. Of the means to be used for removing the inflammatory diathesis, I have already treated.

Dr. Cullen makes the following strong observation. "Opiates, except when they are directed to procure sweat, always prove hurtful in every stage of this disease." I have pointed out the propriety and advantages of combining antimony or ipecacuanha with opium.

*Nitre.*—This medicine was recommended by the late Dr. Brocklesby, in his Medical Observations on Military Diseases, as a very useful remedy in acute rheumatism, in conjunction with bleeding. He directed, "that, for diet and sustenance, the patient should be confined to the free use of water gruel, in each quart of which, two drachms of nitre were to be dissolved; and, when the stomach would allow the quantity of drink, ten drachms or more of nitre would be taken in the twenty-four hours. It usually caused free perspiration, and acted suffi-



ciently as an aperient ; and when it failed in this effect, the help of injections was added." He reports this treatment to have been remarkably successful, and to have cured many cases of painful inflammatory rheumatism in seven or eight days.

In one instance of sub-acute rheumatism, I saw this practice partially pursued, the patient regularly taking half an ounce of nitre daily, less diluted than above mentioned. Some benefit was derived, and no disagreement happened from the large doses of the medicine. I consider that this treatment is far inferior to the other modes which I have detailed ; but, in certain states of highly inflammatory rheumatism, it may be found useful to administer nitre dissolved in gruel or barley water, as auxiliary to other means.

*Peruvian bark.*—The free administration of Peruvian bark during the acute symptoms, would not be suggested by that pathological reasoning which I consider to be most rational and just. Sydenham mentions the free use of bark as one of the predisposing causes of that species of rheumatism which he calls the scorbutic ; but I conceive that he did not discriminate between rheumatism



and those pains of nervous irritation which so commonly attend certain morbid states of the digestive organs.

Dr. Haygarth, in his Clinical Reports, has offered the most earnest testimony in favour of this medicine. He quotes the authority of Morton, Hulse, Fothergill, and Saunders, for its use, and states the amount of his own experience in the following manner. "To sum up the whole in a few words. After the stomach and bowels have been sufficiently cleansed by antimony, I have, for many years, begun to order the powder of the Peruvian bark in doses of five, ten, or fifteen grains, every two, three, or four hours; and, if this quantity has a salutary effect, it is gradually increased to twenty, thirty, or forty, with sedulous attention never to add more than what perfectly agrees. It has generally been taken in milk, mint water, or the decoction of bark." He mentions a few exceptions to his success, which otherwise was very uniform. He declares that "the pains, swellings, sweats and other symptoms of inflammatory fever, manifestly and speedily abate; and gradually cease, till health is perfectly restored."



He further observes, "Another circumstance merits great attention. When the rheumatic fever has been treated by bleeding, leeches, sudorifics, &c. it is well known that pains of the diseased joints and muscles often afflict the patient for many months, or even years. In my Clinical Reports, I find no instance of this kind, and have reason to think that bark entirely prevents this cause of chronic rheumatism, as a consequence of the inflammatory fever."

His concluding panegyric is very strong. "Except mercury in the syphilis, there are few, or perhaps no examples, where a remedy can produce such speedy relief and perfect recovery in so formidable a disease. For many years, I have been thoroughly convinced, that the Peruvian bark has a much more powerful effect in the rheumatic than in any other fever; and that it does not even cure an ague so certainly and so quickly\*."

*Dr. Saunders* added his important testimony to the propriety of giving bark in acute rheuma-

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\* A Clinical History of Diseases, &c. page 89.



tism ; but I am led to conclude, from his observations, that it proved successful only when the fever was distinctly remittent. It appears to me, that he strains his theory beyond the fact, and a question may be raised, as to the justness and consistency of his practical principles. He remarks, "The rheumatic fever appears to me, notwithstanding the violence of its inflammatory symptoms, to be an intermittent fever in a state of disguise, and its periods, those of a double tertian." He concludes with the following account of his treatment.

"The acute rheumatism appears, from the state of the pulse, the tendency to profuse sweating, the deposition in the urine, the frequent accession of chilly paroxysms, to be an intermittent fever, which is probably prevented from assuming the more usual and natural form of that disease, by the inflammatory action on the joints, which I have sometimes seen merely local, (i. e.) unaccompanied with any general inflammatory fever in the habit ; in such cases, while leeches have been applied to the joints, and the hemorrhage from them encouraged by fomentations, I have given bark



freely, which I have never known to increase the inflammatory symptoms ; while the usual means of promoting inflammation were guarded against.” And, again, “In the rheumatic fever, I generally begin about the seventh day from the attack, with the cold infusion of the red bark, in the dose of three ounces every two or three hours, until the evening paroxysm comes on ; nor am I, by this practice, in any degree diverted, either from general or local bleeding, or evacuations by the bowels, when the circumstances occur which may render them necessary\*.”

Dr. Gregory, in his lectures, observed, that it was fortunate if the bark could be found to succeed in the acute rheumatism, but that his own experience was not in favor of it.

I have, on several occasions, made trial of it, observing the rules laid down by Haygarth ; but, very generally, I have found that it has aggravated both fever and pain. I know from experience that cases do now and then occur, in which the remission of fever is so distinct

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\* Observations on the superior efficacy of the red Peruvian Bark, &c. p. 77.



and the true inflammatory diathesis is so entirely absent, that it becomes highly proper to make trial of this treatment; but, in such circumstances, I am led to prefer the use of the sulphate of quinine, with or without the addition of sulphate of magnesia, as the state of the alimentary canal may require. It should be given in a dose of two grains, at short intervals. The encouragement to its use will be, that the tongue appears moist; the pulse soft; the skin relaxed; the urine not of a deep colour, and without very copious sediment. The doubtful part of the question, it will be seen, relates to the propriety of using bark, during the height of the acute symptoms; for its value, at the moment of convalescence, is well confirmed by experience. But neither this, nor any one point in practice, can be reduced to strict rule.

In some constitutions, the susceptibility of inflammatory action, or febrile excitement, is such as to forbid all continuance of tonics and stimulants; and, in these instances, we find that a regulated diet, a proper medical care of the digestive functions, and change of air, must alone be relied upon for the completion of the cure.



*Regimen and diet.*—It is a frequent practice in the management of this disease, to cover the patient with the warmest clothing, as a flannel shirt, or even to place him between blankets. In some cases, when it is proper to give full effect to sudorific medicines, this plan is, in part, essential, but never should be carried to an extreme ; and, should be adopted occasionally, rather than constantly. When the inflammatory action runs high, the method is manifestly injurious, and tends, in a great degree, to aggravate fever and pain. A favourable perspiration is not a certain consequence of this over-excitement of the skin ; and, if copious sweating be produced in this manner, the result is often disadvantageous from the great excitement given to the circulation. I have, on several occasions, directed the removal of the patient from his *hotbed* of perspiration, and ordered him to be placed between well-aired sheets, using only the lightest covering with which he could feel comfortable.

Sydenham advised “ that the patient should sit up some hours every day, because the heat which proceeds from lying always in bed, pro-



motes and increases the disease.” The sufferings from this afflicting disorder seldom, however, allow a compliance with this direction, founded as it is, in good sense. The chamber has been kept freely but cautiously ventilated, and I have thought the most useful temperature for the apartment to be from 60° to 65°.

The diet should invariably be of the lightest kind ; and, when the inflammatory diathesis is marked, must be restricted to mere diluents, as gruel, milk whey, barley water, and tea. Sydenham justly enjoined, “a total abstinence from flesh, and even the thinnest broths, substituting in their place, barley broth, water gruel, panada, and the like.” Boerhaave relates, that when he laboured under the most exquisite tortures of the rheumatism, he supported himself entirely on milk whey for twelve days. As the symptoms subside, the return to more supporting nourishment should be very gradual ; and no solid animal food should be permitted till the tongue becomes clean, and the secreting organs are restored to healthy function. Light broths should only be allowed at the commencement of the restorative plan. I have seen



the inflammatory symptoms severely reproduced by the premature use of animal food.

## OF LOCAL TREATMENT.

In acute rheumatism, the general circulation is so much increased, so many different parts are affected with the inflammation, and the disease is so much disposed to transfer itself from one part to another, that the propriety of using local applications is very questionable, and the palliative result also doubtful.

I except from this statement the use of leeches, which has been recommended both by ancient and modern writers, and, what is of more importance is sanctioned by universal experience. When applied to parts severely painful, they almost certainly afford relief; and their application is perfectly safe. But, unless some one part is severely painful, I should avoid the inconvenience of this remedy; and, if general bleeding be not required, I am satisfied to place my confidence in the internal means of treatment.



As soon, however, as general fever has subsided, and the remaining rheumatic inflammation possesses more of distinct local character, it becomes highly expedient to apply topical remedies to any part which is affected with lingering inflammation and pain. Much advantage will be derived from the use of a lotion, composed of two parts of alcohol and one of *mistura camphoræ*, applied tepid, by means of several layers of linen, and over them a piece of oil silk, just extending beyond the linen, but not used as a complete envelope, which might cause the part to be heated. The oil-silk prevents the speedy drying of the rags, and renders the evaporation slow ; which, in rheumatism, appears to be more useful than if effected quickly. At night, it is often advantageous to apply a tepid poultice, prepared with this lotion and equal parts of grated bread and linseed meal.

It is very important to take the earliest opportunity which the state of the affected parts will allow, of moving the joints by extension and flexion, once or twice daily ; so as to counteract that tendency to contraction and permanent lame-



ness, which rheumatic inflammation so commonly induces. When the inflammatory action has quite passed away, friction with camphorated oil will prove useful.

*The convalescence.*—The recovery of the general strength will usually be much assisted by the use of sulphate of quinine, dissolved in infusion of roses, with the addition of diluted sulphuric acid, and tincture of bark ; or, decoction of bark with the acid ; or some efficacious form of sarsaparilla.

The acute rheumatism very commonly produces a troublesome sequel of stiffness, debility, and aching of the limbs, most felt in the morning and at night ; and for which, exercise and frictions should be used.

I have directed patients, when convalescent from acute rheumatism, and possessing sufficient strength, to overcome the seeming incapacity of motion, by strenuous exertion, and to walk several miles in the day ; beginning, of course, with moderate attempts. The best results have followed ; and, when the weather is favorable, and no particular circumstances forbid this practice, it should be strongly enjoined.



## OF RHEUMATIC METASTASIS\*.

It is happily not of frequent occurrence, that, in acute rheumatism, the inflammation attacks an important internal part; but it is a possible occurrence for which we should always be prepared; and, if it happen, our remedies must be applied with promptness and decision.

There is not, probably, a more dangerous form of disease, than a sudden seizure of the heart dur-

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\* The term Metastasis is often used to imply a retrocession of disease from an external to an internal part; but the only sense in which I wish it to be understood in this description, is, a transfer; in which sense, the term better expresses the fact; for it most commonly happens that, when, in acute rheumatism, an internal organ, or some other part not usually implicated in the disease, becomes affected, the inflammation of the joints does not cease, although it may abate; according to a common law in disease, that the seizure of a new part relieves other parts. Dr. Turton, in his Glossary, defines the term (from μετασχημα to transfer), "A transposition of some humour to another part."

I shall consider the affection of an external part not usually affected by the disease, as the eye, or testis, a metastasis, equally with the affection of an internal viscus.



ing the inflammatory state of the system in acute rheumatism.

The chief symptoms of this alarming malady, are, a hard and rapid pulse, rather small than full, and sometimes attended with irregularity ; the breathing hurried and anxious ; palpitation of the heart, with occasional pain in its region ; some cough ; a distressed countenance ; beating of the carotids ; the highest state of nervous irritability. The patient lies on his back, a little inclined to the left side, with his head raised, and dreads the least movement of the body ; suffering at the same time great agitation of mind, and a restless desire of improving his position.

The first volume of the Medical and Chirurgical Transactions contains a paper by the late Sir David Dundas, describing cases of disease of the heart, connected with rheumatism. He observes, " In all the cases which I have seen, this disease has succeeded one or more attacks of rheumatic fever. In one case, the affection of the heart appeared at the commencement of the rheumatic fever, and its action was so rapid, that the pulse could not be counted for many days ; much diffi-



culty of breathing and oppression, attended with a sense of great debility, took place; and the inflammation, pain, and swelling of the extremities, after having shifted from one joint to another for many weeks, subsided; but the affection of the heart continued, generally attended with great pain, producing, in the progress of the disease, and towards its close, a considerable disposition to dropsy, under which the patient lingered for many months."

He adds, "All those I have seen afflicted with this disease were young persons; only two were above twenty-two years of age. Six of them were males, and three females." One patient who recovered, the author observes, "had survived the attack four years, and was then apparently well. He had been free from rheumatic affection for two years and a half, but the action of the heart was still violent, and easily increased by exercise. His recovery was attributed to a very strict adherence, for a long time, to a vegetable and milk diet, and great attention to avoid any considerable exertion."

Of seven fatal cases, six were examined, and



all were found to agree in the general appearance of the heart. "In all, the heart was uniformly found to be enlarged; in some, the enlargement was much more considerable than in others. In one case, water was found in the pericardium, in all the others, the pericardium adhered to the heart. The left ventricle, in all the cases, was most enlarged in size, but not in thickness; and, in most of them, the heart was found of an unusually pale colour, and very soft and tender in its texture\*."

In one case, which proved fatal, and was ex-

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\* Laennec observes, that, in many examples of pericarditis, and particularly in chronic cases, the muscular substance of the heart is found without its usual colour, and whitish, as if it had been macerated for many days in water. This loss of colour is sometimes accompanied with a remarkable softening; at other times, on the contrary, the heart preserves its natural firmness. He does not consider this softening to be the result of inflammation. He proceeds to say, inflammation is not evident in a muscular organ, except when we find pus effused between its fibres. He considers that Corvisart, among others, had fallen into a mistake in attributing this loss of colour to inflammation of the heart itself; and which he pronounces to have affected the pericardium only. See *Laennec's 2nd edition of Treatise, &c.* p. 658.



amined, Dr. Baillie gives the following account of the appearances. "The pericardium was found closely adhering, in every part, to the surface of the heart. The heart itself had increased wonderfully in size; it was, at least, three times the size of a healthy heart. The muscular structure was, however, not increased in thickness beyond what it commonly is, so that its powers of action were not augmented proportionably to its bulk. As the quantity of blood in this heart was much larger than is natural (for, instead of a few ounces, it contained almost a quart of blood), its powers of propelling this blood to the different parts of the body, must have been much diminished below the common standard."

The third volume of Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge, contains a valuable paper "On Rheumatism of the Heart, by the late *Dr. Wells*. He begins with stating that "*Dr. David Pitcairn*, about the year 1788, began to remark, that persons subject to rheumatism, were attacked more frequently than others, with symptoms of an organic disease of the heart. Subsequent experience hav-



ing confirmed the truth of this observation, he concluded that these two diseases often depend upon a common cause ; and in such instances, therefore, called the latter disease rheumatism of the heart. He communicated what he had observed, to several of his friends, and to his pupils at St. Bartholomew's Hospital, to which he was then physician ; but no notice, I believe, was taken of his remark in any book, before it appeared in the second edition of Dr. Baillie's *Morbid Anatomy*, which was published in 1797. No similar observations, as far as I know, is to be found in any book written before that time. Morgagni, indeed, and Dr. Ferriar of Manchester, had given cases of rheumatism, existing with an organic disease of the heart ; but it is evident that they considered the concurrence of the two diseases as merely accidental ; and it is very probable, that similar cases occur in other authors, who wrote before Dr. Baillie, though I have not met with them."

Dr. Wells makes allusion to Dr. Odier's *Manuel de Médecine Pratique*, of which a review is given in the *Edinburgh Medical Journal* for 1806 ;



and from which I extract the following observation. "Among the various symptoms which are apt to supervene on acute rheumatism, and to degenerate afterwards into a chronic complaint, Dr. Odier mentions an affection of the heart, the prominent features of which, is a species of hectic fever, originating in a slow inflammation of that viscus, commonly of the rheumatic kind. Its characteristical symptoms are, frequency and irregularity of the pulse, oppression, and cough. It is frequently accompanied with anasarcaous swellings, and ends either with sudden death, or with the usual colliquative symptoms."

Dr. Wells observes, that on seeing the paper on the same subject, published by Sir David Dundas, he had postponed giving his own, which; it appears, he had previously prepared.

In order to exhibit a fuller view of the nature of this important disease, I shall make short extracts from some of the cases, and comment upon them.

Case 1.—The patient had been subject to acute rheumatism. The affection of the heart first ensued after the accident of falling into a pond of water; after which, he suffered his clothes to dry



upon him. Rheumatism of the limbs did not take place on that occasion. He was frequently affected with breathlessness, a sense of choaking, and a feeling as if he were about to expire. After having laboured under palpitation four months, he was attacked with pains, swellings, and redness of his joints ; and, during this time, the palpitation began to lessen, but did not entirely leave him before the end of the second year from its commencement. At a subsequent period, the patient related that exercise was more apt to excite palpitation than formerly ; and that it occurred oftener when he was affected with rheumatism of the joints, to which he continued to be subject, than at any other time. Before the coming on of the palpitation, he was seized with a gnawing pain in the region of the heart, and a sense of suffocation. It appears that one of the uncles of this patient, whom he resembled in external appearance, after being severely afflicted with rheumatism, became, when about sixteen or seventeen years old, subject to violent palpitation of the heart, and some time after died suddenly ; and his body being opened, the heart was found enlarged.



Case 2.—The patient, a girl aged fifteen. Had two attacks of acute rheumatism in three years. The heart affected only during the continuance of the rheumatism. Violent palpitation mentioned as the chief symptom of the complaint of the heart.

Cases 3 and 4 comprise the same fact of the absence of disturbance of the heart, in the intervals free from rheumatic attacks.

Case 5.—A female patient, aged sixteen. The affection of the heart was in this case very severe, and proved fatal. It succeeded to the cessation of rheumatism in the limbs. Dr. Wells gives a most remarkable account of the pulse. “The strokes of the heart were 190 in a minute; they were equal in force, and the intervals, which were also equal, were so distinct, that I fancied I could have numbered the strokes, if 250, or even 300, had been given at the same time.” On inspection of the body after death, “The whole of the internal surface of the pericardium was attached to the heart, by means of two distinct layers of solid matter,” (doubtless fibrine) “each having the thickness of a shilling.”



Case 6.—The increased action of the heart came on when the rheumatic complaint affected the limbs, but continued unchanged after the removal of the rheumatism.

Case 7.—In a second attack of acute rheumatism, this patient first experienced pain of the left side, some cough, and a strong palpitation. Dr. Wells remarks of the pulse, “The strokes are full, but are easily made to vanish by pressure. Each stroke is given rapidly, as if with a jerk, forming, I think, what Morgagni calls the vibrating pulse; and which so frequently occurs in diseases of the heart, particularly at their commencement, and in acute rheumatism.”

Case 8—Was furnished by Dr. Baillie, who related that the patient, a boy about ten years old, after labouring many months under rheumatism, was attacked with palpitation of the heart and some time after died. The heart was found somewhat enlarged, and there was a strong adhesion of the pericardium to it. Dr. Baillie, in another communication, states, “I have known a good many instances of palpitation of the heart in children, and young people of both sexes. I cannot,



however, now remember distinctly more than three or four where this affection was preceded by rheumatism. But I can hardly doubt that several cases of this kind have been forgotten by me\*."

Other interesting cases are related by the author of the paper. After discussing the general opinions entertained on the subject of bleeding in rheumatism, Dr. Wells observes,

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\* In the "Lectures and Observations on Medicine," which Dr. Baillie kindly bequeathed to many of his medical friends, I find the following account. "In some young persons, palpitation depends upon an enlargement of the several cavities of the heart, produced, not unfrequently, by rheumatism attacking this organ. This cause of enlargement of the heart was overlooked by the physicians of this country, till it was discovered by the sagacity of my esteemed friend, the late Dr. David Pitcairn. The enlargement, in general, goes on increasing till life is destroyed; but I have known two cases where the enlargement stopped at a certain point, the increased action of the heart in a great measure subsided, and the patients acquired a tolerable share of health. They are both now alive, and they have the prospect of living, with care, to the ordinary term of life. Such a fortunate issue is very rare, but the disease may be retarded in its progress by much rest of body, quietness of mind, and a very temperate mode of living. Wine, and every other fermented liquor should be avoided; and patients under such circumstances, should live almost entirely upon vegetable food."



“ My opinion, however, is in favour of copious bleeding, in the beginning of the disease ;” and adds, “ when the disease of the heart has quickly followed the entire disappearance, or considerable diminution of that in the joints, we may attempt to bring back the latter, or to imitate it, by inducing inflammation of the integuments.” He also observes, “ In regard to the treatment of the rheumatism of the heart, the propriety of enjoining rest and low diet in the beginning of it, and, in every stage, of producing a discharge of serous or purulent matter from the integuments of the thorax, in the neighbourhood of the heart, by the use of cantharides, or other means, will, I believe, be admitted by every person.”

Whatever opinion we may entertain of the nature of metastasis in these cases of affection of the heart, we should not, I conceive, as a matter of course, desire the continuance of the rheumatic action in the limbs. It may sometimes be desirable to promote the relief of the articular rheumatism, and in this manner, help to tranquillize the system. Dr. Wells, adverting to his second case, remarks, “ As I was informed that she had laboured under pal-



pitiation of the heart in a former fit of rheumatism of the limbs, and that both diseases had left her at the same time, I applied myself solely to the removal of that in the limbs, expecting that the other would recede with it; and the event partly justified my practice, for they diminished together, though they both existed when she left the hospital."

It is remarkable that Corvisart, who studied so attentively the diseases of the heart, does not appear to have met with any case of rheumatism of this organ. He merely alludes to rheumatic metastasis, as one of the probable causes of pericarditis.

In Burns's Observations, "On some of the most frequent and important Diseases of the Heart," the only instance mentioned of rheumatism being connected with a disease of this organ, is the case of a girl "who had been subject to "rheumatisms." It ended fatally. "The pericardium was found firmly adhering to the heart; the left auricle and ventricle were remarkably large, particularly the auricle."

M. Laennec, in his extensive and most valu-



able observations on the diseases of the heart, and of the pericardium, does not make any allusion to rheumatism as a cause. He quotes the opinion of Corvisart, that pericarditis may sometimes arise from a rheumatic or gouty affection ; but does not confirm it by his own observations.

Dr. Forbes, who has with so much ability and success trodden the same path with M. Laennec, at page 112 of his *Original Cases, &c.* relates a case of disease of the heart, which arose out of a chronic complaint of the chest. He mentions, that, twenty years previously, the patient was first affected with the disorder of the chest, immediately succeeding a rheumatic fever with inflamed joints, &c.

In Case 12, which is described as angina pectoris, the patient had been subject to occasional attacks of rheumatism ; but had been otherwise healthy until five years previously to the date of the case, when he had acute rheumatism, which, it is stated, had been transferred to the heart. During the last five years, he had been free from rheumatism, but had been distressed with the complaint of the chest. These are the only instances men-



tioned by this author of disease of the heart connected with rheumatism.

Morgagni, in one instance only, according to my research, speaks of rheumatism in connexion with disease of the heart. In his 27th Letter, Art. 8, he describes the case of a gentleman subject to rheumatic pains, who died rather suddenly. Upon examination, a large quantity of blood was found in the pericardium, the cause of which is thus explained. "This blood had issued out of the left ventricle of the heart, through a fissure half an inch in length, and in the longitudinal direction of the ventricle, about which the fibres of the heart were seen to be destroyed by a corrosion that was not recent."

I have felt it necessary to dwell much on this subject, from its very great importance\*. In comparison with the common frequency of cases of rheumatism, the diseases of the heart are happily very rare; and in many of the cases, which I have

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\* The reader will find many valuable cases and observations on the subject of rheumatic metastasis, in Dr. Johnson's work on the Influence of the Atmosphere, &c.



quoted, it may be entertained as a question, whether the rheumatism was not rather to be viewed as a predisposing cause of the chronic disease of the heart, than as having undergone metastasis? From the silence of the several authors to whom I have just now referred, upon the subject of rheumatism, we might be led to conclude that the diseases of the heart occur mostly without any manifest connexion with that disorder.

The acute forms of cardiac disease which occur occasionally from metastasis during acute rheumatism, appear to consist in acute pericarditis, or in active inflammation of the tendinous parts of the heart itself. The former affection may exist separately; but it is most probable that the latter will rarely take place without an attendant inflammation of the pericardium. Chronic disease of this most important organ, allied with sub-acute or chronic rheumatism, or with the rheumatic diathesis, may assume the form of chronic pericarditis; of an increase of the bulk of the walls of the heart, called by Laennec, hypertrophia\*; or, of a dilatation of

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\* Laennec gives the following definition of hypertrophia.  
“ By Hypertrophia, or an increase of the growth of the heart,



the cavities, and all these forms of complaint may occur separately or together.

It is not my present purpose to consider the diseases of the heart, except as they are connected with rheumatism ; and even in this limited view of their pathology, I am well aware that my sketch will be imperfect.

If, in a patient who had never before suffered from disease of the heart, this organ become suddenly seized during the progress of acute rheumatism, in the manner which I have described at p.123, we may conclude that a metastasis has taken place to the pericardium, or to the tendinous parts of the heart itself, or to both situations. In proportion as we find the functions of the heart seriously affected, we may suspect that the diseased action has seized upon its internal structure ; but in regard to our treatment, I may observe, it must be founded upon the actual symptoms before us, and not upon nice pathological distinctions, which, in the circum-

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I mean an increased thickness of its muscular substance, and, consequently, of the walls of the ventricles, without a proportionate increase of capacity in its cavities. More frequently, their primitive capacity becomes lessened." This compound term is evidently made up from  $\nu\pi\epsilon\rho$  nourishment, and  $\tau\rho\omicron\phi\eta$  excess.



stances of an attack of this nature, cannot be drawn with accuracy.

On the immediate occurrence of the symptoms, a copious bleeding from the arm is imperatively demanded; and the blood should be allowed to flow until the pulse become soft, or until syncope be produced. It must be repeated accordingly as it is called for by returning symptoms. Twenty or thirty leeches should be applied over the region of the heart, followed by fomentation and poultice; but cupping, if it could be borne, would usually be preferable. As soon as the active symptoms of inflammation become relieved, a large blister should be applied over the left side of the chest.

We must seek to moderate the action of the heart by the use of appropriate medicines, and the most efficacious will be found in the tartar emetic and in digitalis, which may be given in a saline draught, every two or three hours, in full doses.

As this dangerous form of complaint comes on in the midst of a disease which has been already treated, it is not probable that the bowels will be in a loaded state; and bodily quietude is so important, that the action of purgative medicine



should be avoided during the height of the symptoms. Small doses of calomel repeated at intervals of six or eight hours, will, under most circumstances, assist the cure. Extract of poppy, or extract of henbane, will be a useful addition to the calomel; for it is of importance to lull irritability, while we are using active means to reduce inflammatory action.

The limbs, and especially the rheumatic parts, should be fomented with flannels wrung out of hot water, having the addition of spirits and vinegar; and afterwards should be wrapped in flannel. Blisters applied to the limbs will certainly prove useful. Sometimes the prompt action of sinapisms will be highly appropriate.

It is important to observe, that, as soon as we have succeeded in reducing the pulse to softness and moderation, we should refrain from further general bleeding; for the rheumatic action appears to diminish the power of the heart very remarkably, and renders it morbidly irritable in a high degree.

If the disease pass into the chronic form, the symptoms must be treated according to the charac-



ter which they assume. I shall hereafter shew, by some interesting cases, that the irritable state of the heart, which gives rise to palpitation and high action, rather than strength of pulse, is often more successfully treated by the use of tonics, as the sulphate of quinine, or the sub-carbonate of iron, and a supporting, but not an exciting diet, than by debilitating sedatives, and severe regimen.

The proof that such a plan of treatment is correct, will be found in a speedy abatement of palpitation, and a quietude of pulse, with a correspondent improvement in the general feelings.

It is satisfactory to quote the opinion of Laennec, that an adhesion of the pericardium to the heart seldom interferes with the exercise of its functions. It appeared to him, merely, that the contractions of the auricles become much more obscure when they adhere to the fibrous layer of the pericardium. He details his reasons for differing from Corvisart, on the consequences of adhesion of the pericardium\*.

When there has not been sufficient time to

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\* *Traité de l'Auscultation Médiante*, &c. édition seconde, t. ii. p. 664.



allow of adhesions taking place to the whole of the surface of the heart, the pericardium will be found, on examination in fatal cases, to contain more or less of a sero-puriform fluid, and usually in a large quantity. Laennec observes, “ Les caractères anatomiques de la péricardite aiguë, comme ceux de l’inflammation de toutes les membranes de même nature, sont une rougeur plus ou moins marquée, une exhalation albumineuse concrète, et un épanchement séro-purulent.”

Chronic disease of the pericardium, or of the heart itself, may occur as a consequence of the acute symptoms, or may arise in connexion with sub-acute or chronic rheumatism, or with the rheumatic diathesis, as I have exemplified already in the cases which I have quoted.

It is less probable that these forms of cardiac disease will exist separately when chronic, than when acute; and I should be more apprehensive of an unfavorable result, when the symptoms originate in the chronic form, than when appearing merely as the result of the more active disease. I conceive also, that, in most instances, a very different plan of treatment will be required. I have already



offered some observations upon the practice which appears to me deserving of trial, to meet the debility and morbid irritability which so remarkably distress the patient after the removal of the acute symptoms.

But chronic symptoms, arising primarily, slowly, and insidiously, will in all probability demand a more cautious mode of treatment in regard to the use of tonics. Yet the opposite extreme must be entered upon with circumspection. Unless there be manifest signs of inflammatory action, we shall not find an advantage in general bleeding. If it be employed injudiciously, it serves very materially to increase the irritability of the heart's action. We may, usually with more propriety, have recourse to local cupping, or to the application of leeches; and endeavour to subdue the inflammatory diathesis by the use of tartar emetic, with or without the addition of digitalis. The insertion of a seton over the region of the heart, is a remedy of unquestionable value; or, if this will not be allowed, blisters of moderate size should be applied in frequent succession. As applicable to the cardiac symptoms,



aperients rather than purgatives should be given ; and great advantage will be derived from the use of sedatives.

In this last class of medicines, our choice will be made from amongst the following : opium, in some of its forms ; hydrocyanic acid ; conium ; extracts of henbane, or of poppy, or of lactucarium ; and the judgment of the practitioner will be further exercised in making suitable combinations of some of these different agents.

The state of the digestive organs, and of the functions of the liver especially, will require particular attention, as having a very material reflected influence on the disease of the heart. This fact is so remarkable, that, in some instances, the almost only useful treatment will be found to consist in those means which rectify the action of the liver, and the condition of the digestive viscera in general.

Regimen and moral management comprise a very important branch of our method of cure. An abstemious diet, almost confined to milk and vegetables, or one of medium nutrition, between the extreme plan and the ordinary use of animal food,



should be directed, according to the character of the symptoms, and to the particular constitution of the patient. We should endeavour to support strength, and restrain action. Active exercise should be avoided, and airing in a carriage, open or closed, according to the season of the year, will be the most advisable mode of exercise. Quietude of mind, as far as it can be promoted, is very essential. All anxious occupation should, if possible, be avoided. The air of the country is to be preferred to that of the town, in the advanced part of spring, and during the summer. The situation should be mild and dry ; and the patient should be strictly enjoined to avoid any exposure to damp and cold.

The reader will do well to consult the last edition of Laënnec's Treatise, in which the diseases of the heart are considered with the usual ability of that distinguished pathologist, who constantly availed himself of the numerous opportunities of seeing morbid anatomy at the Hospital of La Charité.

It will be seen that this author did not despair of combating, with much success, the disease of hypertrophy, with or without dilatation ; and he



thought that practitioners were too prone to despair in these cases. In the early treatment he advised frequent bleedings and a very rigid plan of diet. On these means, he had by far the most dependence ; but he also recommended the constant use of diuretics, changing the kind frequently ; and of an extemporaneous infusion of fresh leaves of the cherry-laurel in water, which he considered to furnish a more certain preparation than the hydrocyanic acid. It is certainly necessary to pay great attention in preserving the acid from the influence of heat and light ; but when this care has been observed, I have not had cause to complain of the uncertainty of the medicine. He comments on the variable influence of digitalis on the action of the heart ; remarking, with others, that, for the first few days, it often accelerates the beats of the heart ; and sometimes, in the sequel, seems to make them slower. He thinks favorably of this medicine as a diuretic.

He relates an interesting case of a notary, a friend and patient of Corvisart, who had for many years laboured under a disease of the heart, and for some time had suffered from ascites, and a



universal leuco-phlegmasia; for the relief of which, bleedings, diuretics, and some purgatives, had proved altogether useless. Corvisart thought that death was inevitable, and apprised the friends of the patient of this opinion. They heard of a *charlatan*, who had performed some wonderful cures of dropsy. This person was found, and he administered a strongly drastic powder in two ounces of brandy. The medicine produced more than twenty alvine evacuations, and still more abundant urinary discharge. The same means were repeated every day for more than a week, and each day with more marked effects, the serous diathesis disappearing completely. The patient was still living, in very supportable health, ten years from the period of this treatment.

In the urgent circumstances described in this case, I have more confidence in the use of elaterium than of any other medicine. It may be given in doses from half a grain to two grains, combined with jalap, and some oil of cinnamon. It should be repeated according to the freedom of the operation, and the powers of the patient.

As a rare occurrence, the dura mater appears



to become the seat of inflammation during the acute rheumatism, in the form of metastasis ; by which term, however, it will be remembered, I do not mean to imply that the disease necessarily quits the limbs.

It so rarely happens that constant delirium\* accompanies the symptoms of acute rheumatism, that when it does occur, our attention should be awakened to the threatening attack of the brain, always at the same time taking into consideration the influence of any opiate medicine which may have been used, upon the sensorium. When no such cause can be assigned, our treatment should be as promptly applied as for the relief of an inflammatory state of the vessels of the brain ; the force of our measures being proportioned to the urgency of the symptoms, and the strength of the patient. Thus we take our choice of the following modes of removing blood locally, by opening the jugular vein, by cupping at the neck, or by a free use of leeches to the temples and the scalp ; and if the pulse be full and also hard, bleeding from the arm

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\* The occurrence of some delirium in the night, during urgent symptoms of acute rheumatism, is not uncommon.



must not be neglected. The use of cold to the head is of infinite importance ; and, for its more effectual application, if the case be urgent, we should not hesitate to direct the removal of the hair from the head by shaving.

When the symptoms take place in the highest degree, I prefer the application of pounded ice, enclosed in a bladder, carefully tied ; for every precaution should be used to prevent the wetting of the neck. When the phrenitic symptoms are more moderate, I should prefer the use of a lotion composed of three parts of camphor mixture, one of alcohol, and half as much of compound sulphuric æther as of alcohol, to be applied in the usual manner. We may always consider this part of our treatment to be fulfilled when the scalp is cool. If the rheumatic inflammation in the limbs should have ceased, or even be in a very great degree diminished, it will most probably be expedient to apply blisters to the legs, two at once, or first to try the effects of a single blister. As an internal medicine, I should most recommend the draught prescribed at page 92, and, with it, occasional doses of calomel, alone or with antimony, and



usually to be joined with compound extract of colocynth, studiously avoiding every kind of narcotic so long as high inflammatory action prevails. When that is overcome, it will be our duty to tranquillize the nervous system ; for which purpose we should use saline medicine, and mild sudorifics, conjoined with extract of poppy, extract of henbane, or small doses of Dover's powder. When the more decided use of a narcotic is required, suitable doses of the sedative liquor of opium in a saline draught will be appropriate.

I have seen instances in which the diaphragm has been severely affected, requiring immediate and decisive bleeding. Other internal parts may be attacked with inflammation, as the lungs, the bowels, the kidneys, &c. It may be reasonably argued, that it is not important, in a practical point of view, whether we consider these seizures to be of the nature of rheumatic inflammation, or as having the ordinary character of idiopathic inflammation. Our treatment is not to be governed by the name of a disease, but is to be regulated by those principles which are founded upon sound pathology, and upon experience.



But briefly reverting to the theoretical view of the subject, I must express my opinion, that when the rheumatic inflammation seizes internal parts, it fixes on fibrous textures, as the pericardium (its fibrous coat), or tendinous parts of the heart, or the dura mater, or the diaphragm ; but that if the lungs or intestines become affected, such inflammation might probably be considered as an accidental occurrence of ordinary inflammation, taking place during the inflammatory diathesis of the system, rather than as a positive transfer of rheumatism.

I remember the general circumstances of a case of metastasis of rheumatism from the hip to the testis on the same side, which was mentioned to me several years ago, by a medical gentleman, as having occurred in his own person. He had been exposed to continued rain on horseback, and received most wet on the side which became affected. Severe rheumatism seized the hip, and, in a few days after, it abated in that part, and the testis on the same side was attacked with pain, heat, and swelling. The symptoms in the two situations alternated remarkably. Leeches and fomentations were applied to the scrotum with great advantage ;



but he attributed the most permanent benefit to the effect of repeated blisters to the hip.

I must not omit to notice another anomalous form of rheumatism, which affects the eye. The cases which have fallen under my observation, have been those connected with rheumatism seated in the synovial membranes of the joints, bursæ, or tendons, and always co-existing.

My friend, Mr. Wardrop, in a valuable paper in the Medical and Chirurgical Transactions, vol. x. part 1, has described, with his usual precision, the rheumatic inflammation of the eye; which, however, he does not mention as being usually associated with rheumatism of the limbs. For the details of his description, I refer the reader to the paper itself; but I shall use the freedom of quoting from it a few of the most remarkable passages.

“Rheumatic ophthalmia may, in many instances, be traced to a sudden change of temperature.” It “usually affects only one eye, but sometimes it attacks both, the inflammation being seldom so severe in the second eye as in that first affected.” “If the eye-lids be examined, they are found only slightly swelled, and the number of



blood vessels on the internal surface but little increased."

"The seat as well as the kind of pain affords striking characters of this peculiar affection. Generally the chief seat of pain at the commencement of the disease is in the head, though it sometimes also affects the eyeball itself. The pain is usually most severe in the temple of the affected side ; but it is often seated in the brow, the cheek-bone, the teeth, or the lower jaw. Sometimes the pain is precisely confined to one half of the head, and sometimes there is a severe pain in the cavity of the nose or in the ear. These pains are more of a dull agonizing kind than acute ; and, though in this disease the pain be unceasing, yet it varies much in degree, coming on at times in very severe paroxysms, and recurring with great violence when the head is bent downwards. Sometimes the pain is excited by merely touching the scalp, and the patient is unable to rest his head on the affected side, or even lean it on a pillow.

"The pain in most cases is remittent, the paroxysm coming on at four, six, or eight o'clock in the evening, continuing during the night, being



most severe about midnight, and suffering an abatement towards morning.

“ In the eyeball the patient generally complains more of a sense of fulness and distention than of pain ; and though there is a great degree of external redness, in this disease, the eye does not seem to suffer from exposure to light, for the eyelids are kept open without appearing to create uneasiness ; whereas, in most other inflammatory affections of this organ, even a very moderate quantity of light cannot be endured.

“ This peculiarity in the seat of pain in the Rheumatic Ophthalmia, may perhaps be satisfactorily explained from the texture of the eye which is affected, and the sympathy which that texture has with similar adjacent structures. This particular species of ophthalmia appears to me to be chiefly seated in the sclerotic coat, which, like the dura mater and membranes lining the nose, frontal and maxillary sinuses, is of the fibrous class, and it is membranes of this kind which are commonly the seat of rheumatism in other parts of the body. The sympathy between all these parts and the eye is reciprocal, for when the dura mater is inflamed,



irritability and redness of the eye are its concomitant symptoms." Sympathetic fever is mentioned as always more or less accompanying the rheumatic ophthalmia.

In the treatment, the author recommends, in advanced cases particularly, not properly or not successfully treated, the evacuation of the aqueous humor ; and he states, that, after the operation, he " found no applications necessary but fomentations to the parts around the eye ; and when the eye remained irritable some time after, it speedily recovered by the use of the vinous tincture of opium." Upon the value of this treatment of evacuating the aqueous humor, I am not competent to give a critical opinion ; but I should presume it to be an operation of considerable delicacy ; and even of occasional difficulty, during the irritable state of the eye in this disease.

He observes, " Little advantage is derived from local bleeding. In a few cases, where there is a tendency to plethora, a very full and hard pulse, and where relief has not been speedily obtained from the use of the other remedies, it may be necessary to take away some blood either from the



arm, or by leeches, from the branches of the frontal veins and arteries. In general, however, patients affected with rheumatic ophthalmia, as with rheumatism in other parts of the body, cannot bear bleeding to a great extent. This remedy should therefore be employed with moderation. Indeed, the little relief afforded by bleeding in this disease, may be regarded as one of its diagnostic characters."

He directs the use of poppy fomentation at the commencement of the complaint, and of vinous tincture of opium "to be put within the eyelid once or twice a day, with a common camel's hair pencil, and to be continued whilst it affords relief." He attaches due importance to the state of the stomach, of the biliary organs, and of the skin; which are to be treated according to the symptoms.

When sufficient preparation has been made, he prescribes the use of cinchona with great confidence; even stating, "that it seems to possess as specific an effect in this disease, as in ague." He concludes with observing, "In some cases I have also used with advantage, turpentine, either singly, or combined with the cinchona or rhubarb.



Mercury given in this disease, so as to produce ptyalism, aggravates more than it mitigates the symptoms."

In the London Medical and Physical Journal for 1827, Mr. Mackenzie, the Andersonian Professor of Anatomy and Surgery at Glasgow, and one of the surgeons to the Glasgow Eye Infirmary, has published an instructive paper on Rheumatic Ophthalmia. He points out two species of the disease, rheumatic and catarrho-rheumatic; the former having its seat in the albuginea, sclerotica, and periosteum within and round the orbit; the latter compound affection involving the tunica conjunctiva also. He makes no mention of rheumatism of the limbs being associated with the ophthalmia.

He observes of the pain of the disease, that "it affects the forehead, the cheek bone, and the teeth; extending sometimes even to the lower jaw. Occasionally, it is precisely confined to one half the head. In some instances it is severe on the side, or even in the cavity of the nose or in the ear. But, above all, the eyebrow, cheek, and throat, are its chief seats." He advises both general and local bleedings, and believes that "it ought to be



employed in almost every case.” “Two grains of calomel with one of opium are to be continued every evening till the gums begin to be affected, when the calomel may be omitted, and ten grains of Dover’s powder substituted in the place of the opium.” “Blisters, repeatedly behind the ear, and to the temple, but above all, a large blister to the nape of the neck, will be found useful.” Local frictions with warm laudanum are recommended ; and, in chronic cases, with equal parts of laudanum and tincture of cantharides. He thinks that “applications to the eye itself have but little power over this disease ;” but when all active inflammation is removed, he states that “the vinum opii, in a diluted state, will be found beneficial, dropped upon the eye twice or thrice, or the pure vinum opii, once a day.”

Herecommends, that, “during the whole course of rheumatic ophthalmia, the pupil of the affected eye should be kept under the influence of belladonna, either by smearing the moistened extract over the eyebrow and eyelids, every evening at bed time, or by infusing one drachm in an ounce of the laudanum, which is used for rubbing the head.”



He recommends bark during the chronic stage, but does not extol its utility so much as Mr. Wardrop. He mentions, that, "in old mistreated cases, Fowler's solution gives great relief, in doses of from eight to twelve drops twice a day." He differs in opinion from Mr. Wardrop as to bleeding, and the use of mercury. My experience would lead me to take a middle course between these practical authorities.

I have only seen such ophthalmic cases as have been actually associated with more or less of rheumatism. When the inflammation of the eye has been active, I have seen much more advantage derived from the employment of cupping at the temples, than from the use of leeches only. Usually poppy fomentation has afforded relief; but, in other instances, a solution of acetate of lead, with a small proportion of spirit, applied cold, by means of a layer of linen, has been more comfortable and useful. At first, purgative, and afterwards alterative doses of calomel, joined with James's powder and opium at night, and the daily use of the draught, page 92, have comprised the means which I have had cause to approve. In the



stage of convalescence, I have directed bark, or Fowler's solution, and, locally, a weak solution of the oxymuriate of mercury.

So long ago as 1795, a paper was published by Lentin, in Hufeland's Journal, on Rheumatism, in which the treatment of rheumatic ophthalmia is fully considered ; and accords, in the leading particulars, with the view of the subject taken by Mr. Wardrop and Mr. Mackenzie.

#### OF SUB-ACUTE RHEUMATISM.

Our investigation leads us to consider that neither local inflammation, nor constitutional fever, is essential to the existence of rheumatism. We know that, in the chronic form of the disease, there may be a peculiar and specific irritation of parts, unaccompanied by any signs of inflammation. On the other hand, we meet very frequently with examples of the state of the disease, intermediate between acute and chronic rheumatism ; and which, as requiring a mode of treatment different from that which we use for the other forms of rheumatism, I have, for practical convenience, separated as a distinct variety.



It is the essential character of sub-acute rheumatism, that its attack is either partial or so limited in degree, that the constitution is not affected with much sympathetic fever ; and it frequently happens, that, notwithstanding there is great local suffering, no general fever whatever is present. Either bursa, tendon, aponeurosis, ligament, or nerve, may be the texture affected ; and we often find that one kind of texture only is the seat of disease at the same time.

The system is least disturbed by the attack falling on the bursa. The knee is more frequently affected than any other part. We discover a hard elastic swelling without discoloration, more or less tender to the touch, but not extremely sensitive, attended, however, with occasional dull aching pain, which is greatly increased by motion ; and there is much disability of the joint. If the wrist or the ankle be the affected part, we more usually see that the adjoining tendons partake in the complaint, and the distention of their sheaths causes a considerable appearance of swelling. There is more tenderness on pressure than if the bursæ alone are affected ; there is sometimes



a very slight discoloration of the skin ; the pain is occasional rather than constant ; unless upon motion, which is always difficult and painful.

However insulated the sub-acute inflammation of the ligaments may be, this affection makes a nearer approach to acute rheumatism than when any of the other textures is the seat of the disease. The motion of the joint becomes very painful, the integuments are sometimes swollen, the skin is more or less red, the veins are preternaturally full.

The ankle and the knee joints are the situations most frequently affected ; but all the joints afford examples of the form of complaint now under consideration. The shoulder joint is often attacked, and the patient finds a painful difficulty in carrying the arm backwards, or in moving it in any direction beyond a right angle. In some motions of the arm, the pain is felt most in the joint itself ; in others, just at the insertion of the deltoid muscle. In urgent cases, an evident fulness of the parts may be discovered on a comparison with the opposite shoulder.

Inflammation of aponeurosis is attended with some swelling of the integuments. There is ten-



sion upon the whole muscle, with an apparent increase of its bulk ; and the contiguous veins are distended. The patient experiences a sense of heat, and much aching pain, which is severe upon motion. Stiff neck affords an example of this species of rheumatism.

The temporal muscles become affected with sub-acute rheumatism in a very distinct manner ; and the attendant pain is of the shooting and lancinating kind.

The periosteum of the upper or lower jaw, but more usually that of the upper, is occasionally affected with rheumatic inflammation ; the pain is severe, and commonly affects many of the teeth ; extending also to different parts of the head, but chiefly to the temples. There is considerable tenderness on pressure, but little, or not any, swelling ; nor any indication of the affection of any particular tooth. The complaint is so much under the influence of the state of atmosphere, as to indicate its rheumatic nature.

*Pleurodyne*, or a rheumatic affection of the intercostal muscles, or of the other muscles of



the chest, may be considered as a form of sub-acute rheumatism. It is attended with difficult and abdominal breathing, and with soreness of the affected parts ; chiefly at the origin and insertion of the muscles. There is usually an attendant cough, but seldom constitutional fever, and never, as dependent on the rheumatism, more than in a slight degree.

In some cases, general bleeding may be necessary ; in others, cupping is to be preferred ; but, according to my experience, blisters always prove remarkably useful. I need not here speak of the usual employment of sudorifics and aperients.

The rheumatic affection of aponeurosis and periosteum, to which I have just now adverted, is to be treated by leeches, fomentations, and the usual medicines which we employ for the relief of rheumatic pain.

Nerves are attacked by sub-acute rheumatism, and ; most commonly, the sciatic nerve and its branches ; but the complaint also fixes on the obturator and femoral nerves. The nerves of the upper extremities are much more rarely affected.



I shall treat of this variety of the disease under the head of Rheumatic Neuralgia.

Some of the forms of sub-acute rheumatism may either exist as an original mode of attack, or as a consequence of the acute disease ; all general fever being removed, and sub-acute inflammation exerting its power in a partial manner.

In either case, the efficacy and propriety of local treatment will be found very manifest ; and a principal topical remedy consists in the use of leeches ; which should be applied with freedom, and repeated till the inflammatory action of vessels is removed, provided that they afford relief. It does happen in certain habits, that injury rather than benefit follows their application ; but this exception is rare. Great advantage is derived from the employment of evaporating lotions, and I have usually chosen the formula mentioned at page 120 ; adding about a third of liquor ammoniæ acetatis, when I have wished to increase its stimulating quality. When the inflammatory action remaining, has been so slight as to allow of friction, I have been much satisfied with the effect of the following embrocation.



R. Spiritus Camphorati, ℥ii.

Liquoris Ammoniae Acetatis, ℥iss.

Liquoris Plumbi Acetatis, ℥ii.—M.

Fiat embrocatio \* ter die infricanda.

In the shoulder joint, the affected parts being deep seated, fomentation often proves useful ; and this may consist of the decoction of poppies, when the complaint is very painful, in conjunction with the use of leeches ; but in cases of less suffering, the material should be more stimulating ; and, with this view, hot vinegar will be found very useful. A plaster, composed of equal parts of emplastrum opii and ceratum saponis, spread on leather, usually proves soothing, and is also useful as a protecting covering to the sensible part. Of the more chronic rheumatic affection of the shoulder joint, I shall speak afterwards.

In some cases of sub-acute rheumatism, I have witnessed satisfactory results from the application of blisters, and more especially when the knee joint

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\* This is a useful topical remedy, although not a very chemical compound. The ingredients should be mixed in the order stated, the liquor. ammon. acet. being added gradually, with agitation.



has been affected ; but I must also confess, that I have often been disappointed in their agency, as they have caused irritation without corresponding relief. It will sometimes be judicious, and especially when the constitution of the patient is irritable, to apply the blister in the vicinity of the affected part, rather than upon it ; and, as a general rule, I should always either apply it in this manner, or omit it altogether, where the inflammatory action is joined with great sensibility of the nerves, an irritable state of the constitution, and tension of the skin.

When the temperature of the skin at the seat of disease is become natural, it is useful to cover it with the emplastrum saponis, spread on leather. This simple remedy is defensive ; and, by condensing the insensible perspiration, keeps up a slight process of evaporation.

In the convalescent stage, material benefit will often be derived from bandage ; which, in winter, may consist of flannel or fleecy hosiery ; in summer, of calico.

In some instances, the rheumatic parts continue to be affected, occasionally, with increase of tempe-



rature ; in which case, it is proper to keep the bandage wetted with an evaporating spirituous lotion.

The constitutional treatment is now to be considered ; and here I wish once more to repeat, that, although we are naturally led to the choice of remedies which we consider to be anti-rheumatic, still it is chiefly incumbent upon us to look with careful scrutiny to the state of constitution in every individual patient ; and to treat the symptoms as much, at least, with reference to the state of different internal functions, as to the local part of the disease.

General bleeding can never be required as a remedy for the local inflammation, but will be proper or necessary when the inflammatory diathesis is distinctly present ; as shewn by hardness of pulse, general heat of surface, dense and high coloured urine, &c. which state of constitution may exist as a concomitant of the local rheumatism, although not produced by it.

With respect to internal medicines, similar principles of practice are to be acted upon as are laid down for the treatment of acute rheumatism, with the following modifications.



It is seldom required to act with the same freedom on the bowels ; and the purgative or alterative doses of mercurial medicine may be smaller, and less frequently administered, unless the symptoms are associated with such a disordered condition of the liver as to call for this particular practice. Opiates may either be omitted, or administered only at bed time, and in such moderate dose as the pain may require.

I am partial to the use of the draught described at page 92 ; but if it do not agree with the stomach of the patient, even although the tartarized antimony should be omitted, we may choose the morning dose of senna, salts, &c. or other aperient, as the particular case may suggest. In the majority of instances, we may expect that the vinum colchici will prove useful ; and it may be given, either with the addition of a few grains of magnesia, in any agreeable distilled water, or joined with liquor. ammon. acet. and mist. camphoræ : The addition of three or four grains of Dover's powder will sometimes be useful. If the vinum colchici do not soon afford relief, I advise that it be omitted.



Some medicines must be continued for a considerable time, in order that we may be enabled to judge of their efficacy ; but we may quickly arrive at a conclusion, when we employ a concentrated preparation of colchicum. If it irritate the stomach, producing sickness and pain ; or the intestinal canal, causing frequent griping, we should either lessen the dose, or abandon it altogether.

Previously to the introduction of colchicum, one of the most favorite remedies in the treatment of rheumatism, was guaicum. Dr. Dawson, in 1781, published cases of acute rheumatism successfully treated by large doses of the volatile tincture of guaicum ; and it seems remarkable, that, even in instances requiring the use of the lancet, he prescribed half-ounce doses, usually twice in the twenty-four hours. The fact of such an administration of this heating medicine, without positive injury, serves to illustrate how differently this disease allows of being treated from an internal phlegmasia.

Dr. Fowler\*, relates cases of acute rheumatism "attended with slight feverish symptoms," in

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\* Medical Reports, &c. 1795.



which he gave tincture of guaicum in doses of two drachms, or half an ounce, with much success. He directed the sudorific action of the medicine to be assisted by suitable regimen.

I have occasionally prescribed the volatile tincture in sub-acute and chronic rheumatism ; but never during the symptoms of the acute ; conceiving that its employment would be contrary to all right principle. It is well to know our different resources ; and I am persuaded that, on some occasions, we may resort to the use of guaicum with advantage. I have never exceeded the dose of two drachms ; and more commonly, I direct from one drachm to a drachm and a half, either of the volatile or simple tincture ; and find it useful to join with the tincture some other medicine, for example, Dover's powder, antimony, or liquor. ammon. acet. according to the indications of the case.

Guaicum possesses sudorific and aperient qualities, but most commonly requires auxiliary means ; or, at least according to my experience, it produces more speedy and more beneficial effects, when combined with some other agent.

In that state of sub-acute rheumatism which



borders on the chronic, the spirit of turpentine, in doses of from twenty to sixty minims, joined with the decoction of bark, sometimes proves a very useful medicine.

The warm bath is a remedy which occasionally proves beneficial in the sub-acute forms of rheumatism. With such persons as have been in the habit of using the warm bath with advantage, it will, in all probability, prove soothing and refreshing; but I have seldom seen it materially relieve the rheumatic symptoms. Usually, I give a decided preference to the use of the vapor bath, having had frequent opportunities of witnessing its good effects, in helping to remove the tenderness, and more especially the rigidity of the ligaments and tendons left by the acute disease.

When the weather is unfavorable, the patient should make use of a portable \* vapor bath in his own chamber; in this manner avoiding all risk from exposure.

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\* Mr. Locke, No. 58, Paddington Street, has an excellent bath of this description, and gives his attendance when required. He also practises the art of shampooing and rubbing, with great attention and cleverness.



In more continued cases, when the system is wholly free from febrile irritation, and if there be no contra-indication, we should prescribe the use of the shower bath, which is a most important remedy, both for the removal of that lingering rheumatism which threatens to become chronic, and for the improvement of the constitutional strength.

It will usually be advisable to commence with tepid water, as, for example, of the temperature of  $82^{\circ}$  or  $86^{\circ}$ ; but as it is most remedial when cold, we should direct this without unnecessary delay. It is, on most occasions, proper that the patient stand with the feet in warm water, when receiving the shower. The quantity of water used for the fall, should also be graduated, beginning with one pailful, and increasing it to three or four pailfuls.

I proceed to offer select cases\* of acute and sub-acute rheumatism, for the purpose of illustrating the principles of treatment which I have laid down; and these I shall relate in the form of narrative, rather than in clinical detail.

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\* I beg to observe, that every case related in this volume has come within my immediate observation, except when the contrary is mentioned.



## CASE I.

Acute Rheumatism. Delirium, and threatening symptoms of Phrenitis, with suspicion of Metastasis, owing to the improper administration of opium and bark. Speedy cure under an antiphlogistic treatment.

I WAS requested to visit a Lady, ill in the third week of a rheumatic fever, of which I received the following particulars. She was aged 37, of delicate appearance, of bilious diathesis, and had experienced a severe attack of acute rheumatism fourteen years before. The present illness was occasioned by exposure to wet, as she had been caught in a shower of rain, and remained without exercise in a damp pelisse for an hour. On the following day she was seized with pain in the right elbow and bend of the arm, and, in quick succession, also in the following parts; the left elbow and bend of the arm, right hand, left hand, right shoulder, left shoulder. In a few days after, the knees, and next the ankles, were attacked, the inflammation and pain still continuing in the other parts. She had suffered from the usual symptoms of pyrexia in a high de-



gree; and her pains had been most excessive, especially in the ligaments at the elbow joint, in the tendons at the wrist, and in the fingers. The treatment had chiefly consisted in the use of saline antimonial medicines, of calomel with James's powder in conjunction with purgatives, and of very free doses of opium. The average quantity of the opium had been four and five grains each twenty-four hours.

I found her extremely ill with all the rheumatic symptoms, and also affected with pain of the head, and even occasional delirium, exceeding anxiety, and restlessness; there was much wildness in the expression of the eye, the sight was confused, the face pale. The pulse was 98, rather full, but not very hard. As the fever had in a great degree remitted on the two previous days, half a drachm of powdered bark had been administered every three hours, which the stomach had very well retained.

It appeared probable that the affection of the head might be attributed to the unfavorable influence of the opium, the inflammatory diathesis being too active to allow, with propriety, the use either of that medicine, or of bark. She appeared much ex-



hausted ; the discharge of urine and fæces was involuntary : the tongue was covered with dark fur, and was dry. The stomach was affected with occasional vomiting. Leeches were freely applied to the temples and forehead, a saline draught with the addition of sulphate of potash, was directed to be taken every four hours. The limbs, which now and then were not sufficiently warm on the surface, were wrapped in flannel. No redness appeared in any of the affected parts, which, however, were very sore and painful. I judged it desirable not to use more active treatment than this, but to wait a given time, and see how far the disturbance of the sensorium was attributable to the opium. In the previous plan of regimen, too much nourishment had been allowed, and even light animal food had been given occasionally. Now, the diet was restricted to gruel, arrow root, tea, and barley water.

On the following day, the amendment was manifest. The state of the head was much improved. Some of the leech orifices had bled the whole night. A little sleep had been procured. The pulse was reduced to 90. The power of the



bladder was recovered. She had a little power of moving the limbs, which on the day before appeared to be nearly paralysed. The bowels were in a state of almost constant irritation, and she complained that they were "*raked*;" and the abdomen was tender to pressure. The discharges were dark, much mixed with mucus, and had a strong foetor. The urine was of a deep colour, and much loaded with lateritious sediment. There was still occasional vomiting. Twelve leeches were distributed on the abdomen. The evaporating lotion, p. 149, was used cold to the head. A draught with conf. opiat. gr. vi. mist. camphoræ et aqu. menth. vivid. āā ʒvi. was directed to be taken every six hours.

On the succeeding morning the situation of the patient was further improved; she was perfectly sensible, and had but little uneasiness of the head. The bowels were become composed. The rheumatic action in some of the affected parts was again become inflammatory and very painful. The cordial draught was discontinued. The following draught was prescribed to be taken every six or eight hours: R potassæ carbon. gr. xxvii.



succ. citric. recentis  $\bar{3}$ ss. mist. camphoræ 3vi. acet. colchic. 3i. syrupi tolutan 3i. magnes. carbon 3i. antimon. tart. gr.  $\frac{1}{4}$ . M. fiat. haustus. At bed time she took five grains hydr. c. cret.: and should the pain be urgent, the following powder was directed to be given, and to be repeated every three or four hours if necessary, R pulv. ipecacuan. compos. gr. vii. potassæ nitrat. gr. viii. M. ft. pulvis. This treatment, which succeeded perfectly, was continued for three or four days; when febrile irritation having sufficiently abated, the following draught was directed to be taken every eight hours: R sulphat quinine gr. iss. sulph. magnes. 3i, infus. rosæ 3xi. syrupi aurant. 3i. acid. sulph. dilut. gtt. v.—M. fiat haustus. The rheumatic parts were sponged occasionally with the lotion, p. 120, tepid; and much comfort was derived from its use. The progress of the cure was very prosperous; and, at the end of a month from the first day of my attendance, this lady was sufficiently convalescent to go into the country for change of air.

The chief embarrassments of this case appear to have arisen from the injudicious use of bark,



opium, and too full a diet. General bleeding at the commencement of the attack would in all probability have been very useful ; but it having been so long delayed, and the powers of the patient appearing reduced in the manner I have described, I judged it necessary to confine myself to the use of leeches.

Gastric and intestinal irritation (gastro-enterite of Broussais) was present in this case in a considerable degree ; for the relief of which, leeches were applied with a very good effect. In every case of acute rheumatism (or in gout), in which such irritation prevails strongly, the use of leeches to the abdomen is important ; and, usually, it is requisite to apply a greater number than was necessary in this case ; and, in many instances, also to repeat them. This method of treatment constitutes the most valuable part of the practice of Broussais.

Four years have now elapsed since the recovery of this lady, and she has been entirely free from rheumatism.



## CASE II.

Acute Rheumatism. The most urgent symptoms being relieved by bleeding and antiphlogistic treatment, and a remission of fever appearing, a trial made of bark, but without success; and the first plan of treatment resumed with every advantage.

A GENTLEMAN, aged thirty, of strong constitution, and of full habit, living indulgently, was attacked with rheumatism, on the day following an act of continued exposure to the air of a cold and damp night, in the latter part of autumn, not sufficiently protected by clothing. One knee and both ankles were first affected; and, in the course of a few days, the other knee, both hands, and wrists were attacked; and, lastly, both elbows, each shoulder, and one scapula. The high symptoms of pyrexia were formed fully, and in a very short time, in this case. The pulse was full, hard, and 116; the skin became almost universally hot, after the usual precursory sensation of cold chills; the tongue was much coated, the urine in small quantity, and of the colour of the deepest brandy, and not precipitating any sediment; the bowels were confined, the head was rather painful and confused,



the mind anxious, the pain every where severe, but especially in the ankles and wrists.

The external appearance of the affected parts was as follows. At the knee, the swelling was evidently bursal, without any discoloration of the skin, except just below the patella, where a red patch appeared. At each ankle, there was a circle of redness, without much swelling; the patient had no power of moving those joints. The ligaments here, were the parts affected. The hand was altogether swollen; and the back of it, and the fingers, were quite red. The flexor tendons at the wrist were swollen; the skin was almost of the natural colour. At the elbow, there was partial swelling, and at the point, a strong blush of red. The shoulder joint was much fuller than natural; but the complexion of the skin was natural. It was impossible for disability of motion to be more universal and complete than in this case.

The first remedy used, was the taking from the arm twenty ounces of blood. This was cupped almost in the form of a ball, and the buffy (fibrinous) coat was exceedingly thick, and so firm, that it could scarcely be cut with a knife,



Even the inferior part of the clot was very firm. The serum was very abundant, and of deeper colour than is natural.

Two doses of pills, each containing two grains of calomel, two of James's powder, and five of extr. colocynth. were directed to be taken, with an interval of eight hours. The draught mentioned at page 92, to be taken every six hours; the doses being of sulph. magnes. 3iss. acet. colch. 3i. antimon. tart. gr.  $\frac{1}{4}$ . The diet, barley water, gruel, and tea. The covering of the bed was made as light as the feelings of the patient would allow. The bowels soon became affected; and, after the second draught, bilious vomiting took place, which gave relief.

On the following day, I found the pulse rather abated in frequency and hardness, but still remarkably full; so that the artery seemed to be distended to the utmost degree. The night had been passed almost without sleep, and in great pain. There had been a slight tendency to delirium. There was, occasionally, general perspiration, having rather an acid smell; but, for the most part, the skin was dry and burning. The



bowels had acted freely, and without pain. The urine was more free in quantity ; and there was some separation of sediment, but it did not fall to the bottom\*. The sciatic nerve on each side was now affected, in addition to the other parts.

The bleeding was repeated to sixteen ounces ; and the drawn blood had the same appearances as yesterday, except that it was not so completely cupped. The same pills were directed, and the repetition of the draught, with a drachm only of sulph. magnes. and half a grain of antimon. tart. instead of  $\frac{1}{4}$ . He expressed great relief from the bleeding, " that he felt lighter and cooler, and an abatement of pain in the parts affected with rheumatism."

The next night was passed more favorably.

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\* It might be supposed that the urine of this day precipitating some sediment (and more especially, such as gives a very copious one), would have a higher specific gravity than the urine described of yesterday ; which, although of a deeper color, was clear and without sediment. I know, from experiment, that this last kind of urine actually contains most of uric acid and the other principles. They are kept in solution by an excess of the solvent principle ; but the exact nature of this I am not prepared to state.



The pulse was now reduced to 98, and was soft, and lessened in volume. The skin was more generally relaxed, and less hot. The tongue was more spread with fur, the saliva viscid, and the thirst excessive. The medicine had not produced sickness, and the bowels had acted with great frequency, but without pain. The patient complained much of the consequent distress from being so frequently disturbed ; but admitted that the action of the medicine had greatly relieved the disease. The draught was now given without the sulph. magnes. I prescribed to be taken at bed time, hydr. submur. gr. ii. pulv. opii. crudi. gr. iss. and pills with pulv. opii, pulv. Jacob. gr. i. in each ; of which pills, one was directed to be taken in the night, and repeated after an interval of two hours, if pain should continue severe.

The next day's report was satisfactory. Sleep was procured from eleven till one, when the pain of one ankle, both wrists, one shoulder, and each sciatic nerve became severe. An opiate pill was then taken, and the pain not being materially relieved at three, it was repeated. At four, ease was obtained, and sleep, which lasted till eight. Per-



spiration had been general. The limbs were much relieved from stiffness, and the power of motion was considerably recovered. The tongue was less furred. The urine was lighter in colour, and now precipitated lateritious sediment most copiously. The bowels had not acted. A draught with senna and salts was directed. The draught as before, with a grain of antimon. tart. for the dose, to be taken every eight hours. As the gum was rather swollen and tender, the calomel was discontinued; the opium pill to be taken as the pain should render necessary. In the diet, bread and milk to be added.

To procure sufficient ease and sleep through the night, two pills had been necessary. The senna draught had acted properly; and the discharges, though much less dark, were very bilious. The urine had the same appearance as before. No sickness from the tartar emetic. The rheumatic parts were less swollen, and less red. The disease was in every respect abated. The pulse was 90, and quite soft, though still full, as usually happens in acute rheumatism, so long as fever continues. There had been two remissions of



fever in the last twenty-four hours. The urine was clear, of amber colour, and almost free from sediment.

I considered, therefore, the circumstances of the case to be such as warranted a trial of bark. At this time, the sulphate of quinine was not yet in use. I prescribed ʒss of the powder of yellow bark to be taken in a saline draught every three hours, when the skin should be cool. The draughts were taken regularly, and I hoped with a prospect of success, but we were disappointed. High fever, and a renewal of all the pains ensued. I resumed the former plan of medicines; adding sulph. magnes. to the draught, and giving the following pills at bed time. R. Hydr. submur. gr. iii. pulv. Jacob. ver. gr. iss. pulv. opii crud. gr. iss. extr. colocynth, c. gr. vi. mucil. g. acac. gr. M. et fiant pilulæ iii.

On the next day, the case again assumed favorable appearances; and, from this period, its whole course was free from any considerable embarrassment. The draught was given twice a day, the opium pill occasionally; and, each second or third night, two grains of calomel.



At the end of the third week, all the febrile symptoms were removed; and then I prescribed the following draught, to be taken every eight hours. R. Liquoris ammon. acet. ℥iii. syrupi. toltan. ʒi. decoct. cinchon. (flav.) ʒxii. M. fiat haustus. The affected parts had been sponged frequently, for the last ten days, with a lotion, consisting of alcoholis, liquor. ammon. acet. āā. ʒiii. mist. camph. ʒvi. rendered tepid; from which, comfort and benefit were produced. The diet was made carefully restorative.

The next change of medicine was the use of decoction of bark, with compound tincture of bark, aromatic sulphuric acid, Ed. Ph. and syrup of orange peel. Recovery proceeded without interruption; and, five weeks having elapsed, convalescence was fairly established.

This patient, in a short time, regained the use of his limbs by means of frictions with camphorated oil, and by walking exercise, which was pursued with great courage and determination. Several years have now passed away, and no return of rheumatism has been experienced.

In this case, I consider that the force of the in-



inflammatory diathesis was broken by the two bleedings. I had been taught, by experience, not to continue the use of the lancet merely because the appearance of the blood was such as to indicate the inflammatory condition of the system. It is notorious in this disease, that if, from the formation of the buffy coat, we made it a rule to continue bleeding, we should pursue the practice throughout the whole course of the disease, and, most assuredly, with the worst consequences. I hazard the conjecture, that the cause of the excess of fibrine\* which is found in the blood drawn in acute rheumatism, may arise from the suspended economy of nutrition and absorption in the fibrous textures, in consequence of their being in a state of disease.

I was much satisfied with the useful agency of the tartar emetic, and considered that it had a material influence in diminishing the necessity of bleeding. I believe also, that the acetum colchici was a very useful auxiliary.

The purgative and alterative doses of calomel were respectively useful in evacuating the morbid

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\* See my Experimental Essay on the Blood.



secretions, and in inducing a more healthy action of the biliary system. The combined influence of all the medicines was calculated to excite, actively, the functions of the absorbent system, and thereby to counteract morbid processes ; as the induration of synovial or other secretions, and the thickening of synovial membranes, and of the tendinous and ligamentous fibres. The evaporating quality of the lotion assisted in removing the remaining local inflammation.

Dr. Chambers, of St. George's Hospital, appears to entertain an opinion\*, that, in acute rheumatism, one class of textures is liable to be exclusively affected, and that a strictly relative treatment should be adopted. For example, he considers (if I rightly comprehend what is stated) that if the synovial membranes are the seat of disease, colchicum should be considered one of the principal medicines ; but if the ligaments be especially affected, calomel and opium are amongst the remedies most to be relied upon. I must confess that my experience leads me to doubt the common occur-

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\* See London Medical and Physical Journal, July and August, 1826.



rence of such exclusive affection of parts in the acute form of the disease ; although I admit the truth of the opinion, in sub-acute rheumatism, which having a partial operation, certainly does attach itself, not unfrequently, to one species of texture only.

Any uniform difference of treatment founded upon such a distinct law, would require to be established by a very considerable number of well-observed facts. It is, unquestionably, important to adapt the local treatment of rheumatism to the affection of particular textures, as I shall have frequent occasion to shew.

#### CASE III.

**Acute Rheumatism.**—The disease affected the whole body. The patient of the nervous temperament, as shown by the early delirium. General and local bleeding employed with the best effects. Tartar emetic and saline aperients, with calomel, &c. also used successfully ; and opium beneficial after the removal of the inflammatory diathesis.

A LADY, aged thirty-eight, apparently of delicate constitution, and having a large family of children, was attacked, in the month of May, with rheumatic inflammation in one ankle and one hand. She had been exposed to rain in walking



on the preceding day, and had remained for half an hour in wet clothes, without exercise. This occurred at the expected period of her catamenia.

The seizure was announced by the usual symptoms of fever. I first saw the patient at the end of the fifth day, when the disease had taken severe possession of both hands, both feet, one knee severely, the other slightly, and one shoulder. There was also a considerable degree of lumbago. Her countenance was most expressive of the nature of her sufferings. The forehead was bedewed with moisture, the cheek flushed with vermillion hue, the eyes sparkling with the lustre of high fever: at the same time, she described her pain as intense, particularly in the shoulder, and in the wrists. The pulse was 120, full, and sharp. The surface was hot, and, for the most part, dry; the urine was almost as deep as porter, with some lateritious sediment; the bowels had been relaxed by medicine, and the discharges were dark and offensive. She had been almost without sleep for the last three days and nights. She had been extremely restless, and occasionally delirious.

I directed immediate venesection, and watched



the pulse during the flow of blood : Eight ounces having been drawn, a slight impression was made on the force of the pulse, and the scarlet hue of the cheek was abated. When twelve ounces had flowed, no material difference appeared ; and four more were taken away, when she suddenly became faint. Previously to my visit, she had taken purgative medicine and a saline draught, with the addition of Dover's powder and vinum colchici. She was affected with frequent sickness. I could not, therefore, prescribe antimony, but directed a dose of calomel and colocynth, and the draught at page 92, without the tartarized antimony, to be taken every five or six hours in effervescence ; and, at night, pills with two grains of pulv. Jacob. three grains of extract hyoscyam. and three of extract papav. She experienced sensible relief from the bleeding for a few hours ; but late in the evening she suffered so severe an accession of pain in the shoulder, and in the wrist of the same arm, that she implored to have further means of relief. Leeches were applied freely in each situation, and with an excellent effect ; as the pain, which she had described to be, "as if the parts were undergoing deep



cutting from a red hot knife," was much lessened when the blood had flowed freely.

On the following morning, I found this lady not so much amended as I expected, or rather hoped for ; because this was an early period of the disease, and the symptoms had shewn, at the very commencement, great intensity. She had obtained short broken sleeps ; but, when dosing, had been rather delirious. She had perspired favorably for about an hour after taking the pills, and then became very feverish. The bowels had acted with freedom ; the discharges were of the same nature as before ; the urine not quite of so deep a colour. The look of fever in the countenance was not altogether so strong as yesterday. Thirst was excessive, and the tongue was coated with a thick fur of dark white in the middle, with red sides and prominent papillæ.

The rheumatic parts were considerably painful and hot, and the skin was of a bright red color, except at the shoulder and the knee : at the knee there was much bursal swelling ; at the shoulder the seat of pain was evidently in the ligaments. Just below the patella, there was a patch of red.



The blood had the same appearance as described in case ii. A vein was again opened, and twelve ounces of blood were drawn, which appeared to be as much as the patient could conveniently bear to lose. When ten ounces had been abstracted, she complained of faintness. The pills with calomel, &c. were again repeated; and the use of the draught was pursued, with the addition of a  $\frac{1}{4}$  of a grain of antimon. tart. In the evening, a most severe pain of the head was the chief suffering; and, at intervals, she was affected with high delirium. The scalp was very hot. The carotid and temporal arteries pulsated strongly and sharply. The pulse had less strength of action than in the morning, but was more frequent. Twelve ounces of blood were taken from the neck by cupping. The head was shaved. The following lotion was ordered for constant application, by means of a thin linen cap: R. Alcoholis,  $\bar{\text{z}}$ iv. sp. ætheris sulph. compos.  $\bar{\text{z}}$ i. mist. camphoræ,  $\bar{\text{z}}$ x. M. fiat lotio. Desirable as it was to procure sleep, I could not venture on the use of a narcotic, both because its good effects would be doubtful, and its influence might deceive me as to the real state of the brain.



I had the satisfaction of finding, next morning, that the measures employed had been successful. All tendency to delirium had ceased in two or three hours after cupping and the use of the cold lotion ; and a little good sleep had taken place at short intervals. The pulse was reduced to 90, and was soft. The bowels had acted with sufficient frequency ; the discharges were lighter in color ; the urine was much lighter, and deposited an abundant sediment, more pink than lateritious. The stomach had borne the medicine well. The pain of rheumatism in the different parts was moderate, except on motion ; the red colour before mentioned had almost disappeared. The blood drawn from the arm was extremely cupped and buffy ; that by cupping was a remarkably firm clot, resisting much the force used with a knife of dull edge ; and the proportion of serum was large.

I now prescribed a saline draught, with the addition of nitre, and the same dose as before, of antimon. tart. and with  $\mathfrak{m}$  x. vin. colchic. every six hours. In the evening the other shoulder and the other knee became affected, and the shoulder so severely, that, at the patient's desire, leeches



were applied to that part. Eight were used, and with much relief. The composing mixture, page 106, was directed to be had in readiness ; for now, as the inflammatory diathesis was evidently broken, and the disposition to delirium was removed, I had no hesitation in counteracting pain by the use of opium.

Next morning, I found my patient altogether relieved ; but forty minims of the liquor. opii sedativ. had been required to overcome the pain affecting the ankles, and particularly one knee, in which it had become suddenly urgent after the relief of the shoulder. The skin had acted uniformly and freely towards morning ; and four hours of continued and restorative sleep had been enjoyed. All the rheumatic parts were free from active pain, and were now rather affected with soreness than pain. There was equal improvement in the other circumstances of the case.

As the bowels had not acted during the last twenty-four hours, I returned to the use of the former draught, which the patient also praised, as affording her most benefit. As the excretions had invariably been indicative of that faulty action



of the liver, which is attended by a secretion of irritating bile, occasionally of an olive green color, in union with much deposition of sediment, approaching to bright pink, in the urine; I prescribed four grains of pilul. hydrarg. to be taken every night, till the gum should be just perceptibly affected.

From this period, the progress of the case was most satisfactory. The draught was usually taken twice in the day for a week, and a moderate dose of the composing mixture was taken at night. As soon as the tongue became almost clear, and the secreting functions were satisfactorily improved, I had recourse to the sulphate of quinine: first, in the dose of a grain, three times a day; and afterwards, two grains twice a day. I had before enjoined practising motion of all the affected joints, as soon as it could be done without producing too much pain or irritation, at the same time making use of the evaporating lotion, page 120; and now I confidently directed frictions, with the following liniment: R. Gum. camphor.  $\bar{\text{z}}$ ss. ol. amygd.  $\bar{\text{z}}$ ii. M.

At the end of the fifth week, this lady was suf-



ficiently convalescent to be removed into the country for change of air—that *best medicine* for the whole system, at the conclusion of any kind of fever which has seriously involved the functions of one or more of the vital organs, and exceedingly deranged the nervous system. She has remained perfectly well in all respects, during a period now of three years and a half.

In reflecting on the urgent circumstances of this case, I felt much satisfaction in having successfully treated the cerebral symptoms, which were highly threatening; and also, that I was not deterred by the anathema of some authors against bleeding in acute rheumatism, or by the appearance of constitutional delicacy in the patient, from treating the inflammatory diathesis in a decided manner, by the use of the lancet, of cupping, and of leeches.

With respect to the blood taken by cupping, I may observe that its firm coagulum, which had shewn its contractile condition by the large quantity of serum, squeezed out as from a sponge, was equally demonstrative of the inflammatory action of the vessels, with the fibrinous coat of the blood



drawn from the arm. It rarely happens that blood drawn by means of cupping, exhibits the buffy coat ; and the cause of the absence of such appearance, I have endeavoured to explain in my Essay on the Blood.

## CASE. IV.

Acute Rheumatism. Temperament of the patient nervous, and diathesis bilious. Treatment much in reference to bilious error. Pain and irritation relieved by sedatives. Bleeding avoided.

THE patient was a married lady, aged twenty-seven, slight in figure, of a very delicate constitution, and of the nervous temperament. She had lived several years in a hot climate, where she had usually enjoyed good health. In her passage to this country, in the spring of the year, she took cold in the ship, two days before she landed, when she became immediately affected with acute rheumatism ; the ankles, knees, shoulders, and interscapular muscles, being the parts affected.

She relates that she experienced severe suffering for a month, after which she gradually recovered. She remained well during the summer, and till the end of autumn ; when, from riding in



the evening in an open carriage, she took cold, and on the following day found one thumb inflamed and swollen. In the course of the next three days, the disease extended itself to the back of the hand and wrist, the shoulder of the same arm, both hips, the right knee, and both ankles. The head was also very painful.

In these circumstances, I first saw the patient. I was immediately struck with the marks of a bilious diathesis, and a highly nervous temperament. Her complexion was darkly jaundiced; the tongue much coated with brown fur, and the saliva was very viscid. The thirst was excessive. The urine was turbid, and deposited lateritious sediment. The bowels were not in a state of free action. She was afflicted with much nervous tremor, and complained of starting of the limbs and severe cramps. The pulse was 126, not full nor hard, but rather a pulse of irritation. The skin was hot and dry. She expressed that she felt alarmingly ill, and that the pain of the sciatic nerve, the hips, and the ankles, was almost more than she could bear. At the ankles, and in the hand generally, there was a faint blush of red-



ness. There was slight swelling at the knee ; great fulness of the fingers and back of the hand ; and the sheaths of the tendons at the wrist were distended.

As a preliminary step to all other treatment, I considered it necessary to act fully on the bowels, and prescribed hydrarg. submur. gr. iii. pulv. Jacob. gr. ii. extr. colocynth. compos. gr. vi. to be succeeded in two hours by the use of a mixture with senna, salts, &c. in sufficient doses to effect a free operation. I directed that, when the bowels should be adequately relieved, the following draught should be taken every four hours :  
 R. Potassæ carbon. gr. xxvii. succ. citric (recentis) ʒss. aquæ. puræ ʒvii. syr. simpl. ʒi. potassæ nitrat. gr. vi. pulv. ipecac. compos. gr. iv. M.  
 The diet to consist of the most simple diluents.

On the following day, I found an improvement in some respects ; but that the general rheumatism was still severe, and had not been so much relieved as she expected. The pulse was reduced to 112. The complexion was less dark, but the countenance was anxious, and the eye had a consider-



able degree of glassy appearance. The skin had only acted partially. Much fever had prevailed during the night, and but little sleep had been procured. The alvine discharges were chiefly like a mixture of dark clay and water, and had great fœtor. She revolted at the idea of repeating the senna mixture. I therefore prescribed, in addition to the same pills as yesterday, the draught at page 92, with doses of a  $\frac{1}{4}$  of a grain of antimon. tart. ʒi. sulph. magnes. ʒi. acet. colchic. to be taken in effervescence, every five or six hours; and that, at night, if pain should be severe, she should take three table spoonfuls of the composing mixture, page 106, and two more spoonfuls in two or three hours, if pain should not be relieved; but that, if restlessness, more than pain, should be the symptom, one table spoonful only to be taken, mixed with an ounce of camphor julep.

The morning report was altogether more favorable. The pulse was 100, and had more firmness, although the bowels had acted with great frequency. The discharges were chiefly of an olive green colour, and the sediment from the urine more pink than lateritious. The tongue



was less coated, and the thirst not quite so urgent as before. All the rheumatic parts became very painful at ten in the evening, and she suffered severe pain between the shoulder blades : three table spoonfuls of the composing mixture were then taken, equal to twenty-five minims of the liquor opii. sedativ. and  $\frac{1}{4}$  of a gr. of antimon tart. In an hour after, sufficient relief was experienced to allow of dosing kind of sleep, which was attended with frequent startings. At two, pain recurred severely in the wrist, sciatic nerve, and one ankle, and two spoonfuls more of the mixture were taken, which relieved considerably, and carried the patient through the night in a tolerable manner. More perspiration than before took place. In the morning early, the stomach was affected with bilious vomiting.

I found her suffering severely from head-ache, with a sense of confusion which appeared attributable to the opiate. Her pulse was 98. The rheumatism was considerably relieved, and she had a little power of moving every part. The pain between the shoulder-blades, and especially at the joint of the right, was troublesome. I prescribed



hydry. submur. gr. i. pulv. Jacob. gr. i. extr. colocynth. c. gr. iv. and the same draught as before, omitting the tartarised antimony and the sulphate of magnesia, to be taken only twice in the day, using at night the sedative mixture with acetate of morphine, &c. as mentioned p. 106. I directed the head to be washed freely with the lotion, p. 194. The diet to receive the addition of chicken tea with bread sopped in it.

I had the satisfaction of finding this lady considerably better on the next day. The bowels had acted sufficiently before evening, and the discharges now had a light yellow colour. There was less sediment in the urine. The tongue was beginning to lose its fur. There was an expression of relief in the countenance. Several hours of comfortable sleep had been enjoyed—the effect of taking at twice one grain of the acetate of morphine and three drops of the hydrocyanic acid. She was enabled, with some difficulty, to quit the bed that day. Most of the affected parts were sponged with the lotion, p. 120, tepid, and the hips and shoulders were treated by gentle friction, with a solution of camphor in oil of almonds. The dis-



ease from this time gradually declined. The last-mentioned pill, with calomel, &c. was given each other night ; and a draught like the last, having ʒss. acet. colch. only, and the addition of ʒss. sulph. magnes. was given twice daily. A small dose of the morphine mixture, with a dose of one drop only of the hydrocyanic acid, was taken each night for about a week. Then the patient commenced with a course of sarsaparilla, taking each other night the following pills: pilul. hydyr. et extract rhei āā. gr. iv. This plan was pursued for three weeks, with the effect of restoring the stomach, the biliary secretion, and the function of the kidneys, to a healthy state.

In a revision of this case, I may observe, that the rheumatic symptoms appeared to take their character chiefly from the irritation of the biliary system, to which I directed my assiduous attention. The inflammatory diathesis was not so predominant as to call for bleeding ; a treatment which I much desired to avoid, as the constitution of the patient was weak. The administration of calomel produced the best effects. Without its influence, the case would, most probably, have been much



more tedious and severe. The acetate of morphine proved far more sedative than either the Dover's powder or the liquor opii. sedativ. There was no painful gastric irritation ; no pain even on pressure in the right hypochondrium ; and the pain between the scapulæ, attended also with much sense of burning heat, seemed to indicate that the posterior part of the liver was most affected. At the period of convalescence, I preferred the use of sarsaparilla to that of bark, considering it more consistent with the alterative plan of treatment.

This lady had another attack of acute rheumatism in May of the following year ; but it proved slight, both in degree and duration. Yet she remained weak in the joints, suffering lameness and occasional pains ; and, to use the common phrase, was very *bilious*. I directed that she should pass the month of July at Leamington, where she took the saline aperient water, and a gentle course of pilul. hydr. with the use of the warm bath every other day. In the beginning of August she visited Buxton, and there derived material benefit from a six-weeks' course of bathing, having also the aid of friction and shampooing of the limbs



daily. She repeated this plan for two successive seasons, and appears now to have conquered the rheumatic diathesis. Her constitution is altogether most materially improved. She is much stronger than formerly, and possesses a good share of *embonpoint*.

## CASE V.

Acute Rheumatism. Progress of the case extremely tedious; the peculiar constitution of the patient not permitting the usual employment of the means which relieve the disease. Therefore *La Médecine expectante*, from necessity, very much constituted the narrow line of practice in this instance.

A LADY, aged forty-seven, the mother of a large family, well formed, but of delicate fibre, highly nervous in temperament, yet, from observing great care in her habits, not very unhealthy. Her father had been much afflicted with rheumatism, but lived to the age of seventy-nine; her mother with gout, and lived to eighty-three.

This patient first suffered from rheumatism at the age of eighteen. In the year 1818, she had some symptoms of diabetes, which yielded to the



use of animal diet, and of nitric acid as a medicine. In the latter end of 1819, she suffered much from lumbago and general rheumatism, and remained very much an invalid, till February 1820; when, on the 17th, after some slight exposure to cold in the day, she was seized with shivering in the evening, followed by a most painful attack of lumbago. This was greatly relieved by cupping. From this period, till the 14th of March, she was confined to bed with all the symptoms of severe acute rheumatism.

She experienced three or four shiverings every twenty-four hours, which announced that a fresh part would be affected with inflammation; these attacks commencing "with the sensation of cold water running from the top of the head all over the frame, between the skin and flesh" (such was the language of the patient). Intense pain followed in some joint, and then a profuse perspiration, which appeared to cause a mitigation of the pain; but the newly affected joint was left exceedingly swollen. The pulse was always quick; the tongue much coated with dark white fur. She had not the slightest power of assisting herself,



and as the nurse disposed the limbs, so they remained. At the end of March, the throat was distressingly affected. There was the constant desire of expectoration ; and the flavor of salt was so strong as to destroy the natural taste of every thing that was swallowed. From about this period, the rheumatic symptoms slowly abated.

In the month of May, she changed the air, but was so tenderly susceptible, that she could not bear any exposure. On the 20th of June she went to Brighton, and remained there two months. She made trial of the warm bath ; but it caused increased feeling of debility, and in no respect gave relief. From the use of the shower bath, she found immediate benefit, but could not bear a lower temperature than  $88^{\circ}$ , nor a larger quantity than two pailfuls. She returned home much improved in health. The fingers remained so much contracted, "that she could do little more than feed herself." This local infirmity was afterwards removed chiefly by friction.

The patient states, that her rheumatism was always very much connected with the state of the bowels, or any deviation from the most careful re-



gimen. During the illness of which I have given this outline, the secretions were constantly unnatural ; the urine depositing lateritious or pink sediment, and the fæces being dark with much foetor. Her system was peculiarly sensitive to the influence of every kind of medicine ; and there was scarcely one, except of a mild aperient power, that she could take with any advantage. Colchicum, in the slightest doses, disagreed exceedingly. Calomel, in the dose of a grain, would act considerably on the bowels ; but it did not agree. The following medicines could only be taken in the annexed doses. Rhubarb, two grains ; castor oil, a tea spoonful ; senna mixture with salts, a dessert spoonful.

This lady has not since suffered from any acute attack, but seldom feels completely free from rheumatism, and is very sensible of change of weather. Yet she enjoys very tolerable health.

Throughout the progress of the acute symptoms, there was never delirium, although general restlessness was as urgent almost as I ever witnessed in any case. I was frequently apprehensive of metastasis to an internal part, from the



sudden and harassing manner in which the inflammation attacked a fresh part every day ; and from the great delicacy of the constitution. The absence of such an occurrence leads to the conclusion that no internal viscus was materially predisposed to disease ; and that, from this happy circumstance, the patient successfully supported all her sufferings.

## CASE VI.

A YOUNG married woman, of healthy constitution, having a child at the breast nine months old, after unusual exercise on a hot day in June, had imprudently rested herself on the grass as evening was approaching ; and had drunk freely of cold water. On the same evening she was attacked with severe spasmodic pains of the chest, passing through to the shoulder blades ; and with rigors, followed by fever. In the course of the night, the secretion of milk was suppressed. She was bled freely on the following morning, and took aperient medicine.

On the next afternoon I first saw her, and



found her alarmingly ill. A few hours previously, she had used a warm bath ; but she described that it increased her fever and pains, and that, after it, the burning of the skin became, if possible, more intolerable. The countenance was strongly expressive of intense suffering ; it was flushed, and there was some wildness of look. She had been delirious in the night. The pulse was rather full, not hard, and 130. The tongue had a thick whitish coat in the middle, with very red edges. The stomach was highly irritable, rejecting the medicine, which had been given at intervals, consisting of liquor. ammon. acet. vin. colch. with aqu. menth. virid. and syrup ; and, for the most part, also rejecting every drink and nourishment. The bowels were in a state of painful irritation, and the discharges were frequent and chiefly mucous. The whole surface of the abdomen was extremely tender on pressure.

There was rheumatic inflammation of the hands, elbows, shoulders, knees, and ankles ; and in all these parts, except the shoulders and knees, there appeared patches of bright redness ; “ the pain was gnawing and tearing.” The loins were



affected "as if they were mortified;" and the legs, "as if the bones were splintered." The head was rather painful. The mammæ were tender, but not hard. She was restless in the extreme, and expressed her conviction that she should not recover.

Twenty-four leeches were applied to the abdomen, and the bleeding was encouraged by fomentation. The mammæ were also fomented. Secretion had not returned. The following draught was directed to be taken every four hours.

R. Potassæ carbonat. gr. xxvii. magnes. carbon. gr. x. aquæ puræ. 3x. syrup. simpl. 3i. liqu. opii, sedativ. m. viii. vin. colchi. m. x. M. fiat haustus, c. additione cochlear. ampli. i. succ. citric. recentis in statu effervescentiæ sumendus. Three grains of hydr. c. cretâ were also prescribed to be taken every eight hours.

Happily, these means of treatment agreed. She experienced much relief, and enjoyed occasional sleep. On the following day, I found the pulse reduced to 116; the skin less hot, and the rheumatic fever abated. She still complained of pain of the bowels, and the discharges, though less mucous, still indicated much irritation. Twenty



leeches were repeated on the abdomen. As scarcely any perspiration had taken place, and as the disposition to vomiting had ceased, four grains of Dover's powder were substituted for the liquor opii sedativus in the draught, which was now directed to be taken every six hours, and the hydr. c. cretâ was continued.

I was called away from town, and had not the opportunity of seeing this patient again. I learnt that, at the end of a week, she was so much recovered, as to allow of being taken from her bed. She unfortunately exerted herself in attentions to her children, being indigent, and not having the full share of comforts and care which her situation required. She took cold during the night, and experienced an immediate relapse of fever. She became constantly delirious, and died in twenty-four hours afterwards. No examination of the body was made.

This was a very important case, and allows of much reflection. The immediate urgency of all the symptoms, attended with cerebral irritation, and a painful inflammatory action of the mucous membrane of the stomach and intestines, consti-



tuted a very different kind of disease from ordinary acute rheumatism. We may consider that the constitution of the patient was rendered more than naturally irritable, from her being a nurse. There was such a prostration of power, and so much exhaustion denoted by the symptoms which I have described, that I did not judge it expedient to repeat the general bleeding. It was satisfactory up to the period of the relapse, that the treatment was successful ; and, had every proper care been pursued, it is most probable that the unfortunate patient would have recovered.

We see here a confirmation of the truth which I have stated and quoted in my introductory pages, that, in looking at a case of acute rheumatism, our prognosis is to be founded, not upon the mere view of the external symptoms, but upon the alliance of the particular state of the constitution with the external part of the disease.

Under the most favourable circumstances, acute rheumatism is a disorder of severe suffering, and such as renders the system highly irritable. Need we wonder that a predisposition to disease which may exist in any important internal part, should



be called into action, by such a powerful cause of disturbance as this species of fever? In the case just now related, the dangerous visceral symptoms were coincident with the rheumatic attack; and there was not any apparent abatement of the rheumatic inflammation consequent to the internal irritation. The varieties of character in different cases are almost as remarkable as the difference of features in different individuals, although the same name be given to the disease in each instance. Hence, then, a pathological and cautious investigation becomes most important in every separate case.

#### CASE VII.

**Acute Rheumatism.** Severe affection of the diaphragm and intercostal muscles. Irritation and spasm, rather than the true inflammatory diathesis, appeared to form the constitutional character of the disease. At an important juncture in the case, the sulphate of quinine highly beneficial.

A GENTLEMAN, aged twenty-one, slight in form, and of the nervous temperament, when at the age of fifteen, soon after recovering from a catarrhal fever, which was epidemic at Brussels, suffered



under a rheumatic fever, which gradually increased for two or three weeks, and then slowly subsided, leaving partial flying pains, which were troublesome occasionally during many months afterwards.

For several months past, previous to the illness now to be described, these pains had recurred now and then, without any other apparent cause than taking slight cold. These pains were sometimes accompanied with fever, and a quick and rather hard pulse ; but such attacks yielded in a short time to the use of aperients and sudorifics. About the 9th of the month (May), he experienced one of these severe attacks in a more than usual degree. On the 15th he complained of severe pain in the lumbar and intercostal muscles, and the pulse was full, sharp, and frequent. He was immediately bled to sixteen ounces, when he became faint. The blood was much cupped, with a thick buffy coat. He was relieved, and continued better the two following days. On the 17th the oppression of the respiration returned. The pain was lessened in the back, and appeared to be seated chiefly in the crura of the diaphragm, dart-



ing most severely in that direction, and also still affecting the intercostal muscles. The pulse was quick and irregular. He appeared too weak and delicate to allow of the repetition of bleeding ; a warm bath was used with some relief to the pain and the difficulty of breathing. During the 18th, 19th, 20th, and 21st, the severity of the pain abated slowly, and appeared at different times in different parts of the body, but chiefly in the trunk. There was at this period a distinct remission in the pains ; but regularly, at midnight, an exacerbation of all the symptoms took place. The moderate action of medicine on the bowels always gave relief ; and the patient felt more comfortable from the warm bath.

On the evening of the 22d, the respiration again became painfully oppressed, gradually becoming worse till two in the morning, with an irregular and quick pulse. A blister to the chest, and a mixture, containing compound sulphuric æther, gave some relief. On the morning of the 23d, the pain, still more severely than before, affected the diaphragm and intercostal muscles ; the pulse was full and rather hard. Twelve large leeches were



applied over the crura of the diaphragm, and a considerable depletion\* was thus effected. The patient became very faint and exhausted. The internal medicines had been as follows: For the first three days, from fifteen to twenty grains of Dover's powder at bed time. On the 12th, of tartarised antimony and opium, each a quarter of a grain every four hours during the night, and of the wine of colchicum 3ss. every four hours during the day. These medicines were continued for several days, each dose of opium being increased to half a grain, and of the colchicum wine to ʒi. On the 17th, a gentle purgative was administered, and then gr. iii. of extractum hyoscyami with 3ss. of liquor antimonii tartratis every four hours. On the 18th, and four succeeding days, the treatment

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\* We can make only a probable calculation of the quantity of blood which can be procured by means of leeches; but I believe that we may consider the average quantity to be derived from the suction of a healthy, full-sized leech, and the subsequent discharge from the orifice, promoted by fomentation, to be from half an ounce to six drachms, varying of course very much according to the vascularity of the part, and the action of the vessels.



consisted in the use of four grains of James's powder and one third of a grain of opium every six hours, with a saline mixture containing 3j. of wine of colchicum for each dose; and, together with these medicines, a warm bath was used every evening. The diet, from first to last, had been restricted to gruel, barley-water, tea, and bread. Early in the evening of the 22d, the difficulty of breathing returned severely. Twelve leeches were again applied.

On the same evening, at ten o'clock, I saw this young gentleman for the first time. The preceding account was given me by his father, who was a member of the profession. I found the patient alarmingly ill. He appeared in a very exhausted state. His countenance was pale, with drawn-in cheeks, and full of anxiety. The pupils of the eyes were much dilated. The pulse was 120, and throbbing. The heart was affected with the palpitation of exhaustion. The breathing was hurried, and apparently uneasy. There was excessive restlessness. The pain of which he chiefly complained was in the dorsal muscles; but rheumatism was still affecting the hands, elbows, knees,



and feet. In the hands and knees there was evident synovial distention; but at the ankles, I judged that the ligaments were affected, as there was redness of surface without swelling, and any attempt to move the feet was extremely painful. The tongue was thickly coated with a cream-like fur. The skin, almost of the whole body, was bathed in perspiration.

There appeared to be every danger of sinking in this case; and, after administering some arrow-root with spices and water, and directing the whole surface to be rubbed dry with warm flannels, I prescribed the following draught, to be taken every four hours: *R* Sulph. quinin. gr. iss. infus. rosæ. 3xii. syrupi tolutan. 3j. liquor opii. sedativ. m. vi. tinct. digitalis m. viii. acidi sulph. dilut. gtt. vi.—*M.* On the following morning I had the satisfaction of finding the patient materially better. The medicine had agreed perfectly. Sleep had been procured. The pulse was lessened to 96, and had lost much of the throbbing. The other symptoms were equally relieved.

The dose of sulphate of quinine was increased to two grains; but the interval was made six hours.



From this period, no untoward circumstance occurred. In two days after, the pulse being reduced to 88, the digitalis and opium were omitted, and the sulph. of quinine was increased to three grains, to be taken three times a day, with an addition to the dose of the diluted sulphuric acid. An opiate was given at night. The diet was made restorative, even wine being allowed, very moderately, and in a diluted form. The patient perfectly recovered, although by very slow degrees.

In this important case, at the moment of my first visit, the powers of life were evidently in danger of sinking\*. The last application of leeches was decidedly hurtful; and I think we

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\* Exhaustion from loss of blood, whether the depletion be from the use of the lancet, cupping, or leeches, or from accidental hæmorrhage, is certainly the most serious; but, under circumstances of extreme debility and inanition, the effects of active evacuation by the bowels may be almost equally injurious. With little blood in the system, the heart is called upon to perform its functions beyond its powers; and the consequent irritation and distress of the nervous system is inconceivably great. I hope that the daring practice of taking away blood in enormous quantities, for the cure of inflammatory disease, which, some time ago, was often advocated in our journals, and in some medical works, has yielded to more discreet principles.



may fairly conclude, that the sulphate of quinine, and cordial nourishment, tended to save the patient. Had the throbbing pulse been mistaken for a sign of genuine inflammatory action and the lancet been used, the result might have been quickly fatal.

The patient, when he became convalescent, went to the continent, for the benefit of change of air and scene.

#### CASE VIII.

Acute Rheumatism. Bleeding and the antiphlogistic treatment successful in a short time.

A GENTLEMAN, aged thirty-six, of full habit, robust and healthy, having remained some time in wet clothes, was attacked on the following day

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I admit the occasional necessity of the *anceps remedium*; but I am at the same time persuaded that we ought to cherish with care the *pabulum vitæ*, the blood, which, after large depletions, is not re-generated in such perfect quality as before.

It is with great satisfaction that I refer the reader to the "Medical Essays" of my friend Dr. Marshall Hall, who has pointed out, and illustrated by examples, the distinguishing symptoms which denote "exhaustion from loss of blood, and sinking from various other causes."



with rigors, and other symptoms of fever; and, in a few hours after, with rheumatic inflammation of one hand. Leeches were applied, with some relief, and sudorific and aperient medicines were administered. The rheumatism speedily extended itself; and, on the fourth day, when I first saw him, he was helpless in bed, with inflammation in both hands, both knees, and both feet. Leeches had been applied to the other hand, with slight relief; but the inflammation had returned to the hand first affected, in all its original force. In this case, the bursal, tendinous, and ligamentous textures were all affected in different parts; and in most of the situations there was a vivid redness. Pyrexia was urgent, and distinguished by fulness and hardness of pulse, which, in frequency, was 108; by universal heat of skin; a coated tongue; very high coloured urine, only occasionally depositing sediment, which was strongly laceritious; and by very dark alvine evacuations. Pain was most severe, and particularly in the hands and ankles. In the last forty-eight hours, not any sleep had been obtained.

I directed the loss of twenty ounces of blood



from the arm. The blood was cupped in the greatest degree, and had a very thick fibrinous coat. The clot appeared almost like a ball, and was suspended in a great quantity of serum. I prescribed the draught, page 92, to be taken every five hours; and also a dose of pills, with four grains of calomel, two of James's powder, and eight of compound extract of colocynth. He had felt suffering so much from the loss of sleep, that I directed more or less of the composing mixture, page 106, to be taken at night, according as it might be required by pain or restlessness.

On the following day, I found the symptoms abated, but still urgent. The pulse was 98, full, but rather less hard. The bleeding had afforded sensible relief, and had abated the oppressive sensations of fever. The bowels had acted with great freedom, and the action of the kidneys had been increased. Some comfortable perspiration had taken place at intervals. Pain and restlessness had so much prevailed as to induce the patient to resort to the composing mixture, of which he had taken to the extent of fifty minims of the sedative liquor of opium, and half a grain of tartar emetic, in ad-



dition to the doses contained in the draught. He had enjoyed three or four hours of sleep.

I directed the repetition of the bleeding ; and, wishing that this might be the last, I determined that the blood should flow until the pulse should become slower, softer, and less full. This effect was produced, when twenty-four ounces were drawn ; then the patient looked pale, and had the apprehension of becoming faint. The blood was received in three cups, and it came in a full stream. The same medicines were continued, the regular dose of the tartar emetic being half a grain every six hours, and of acet. colch. 3i.

On the following morning, he was materially relieved. The pulse was reduced to 86 ; and was, in every respect, improved. The different medicines had acted satisfactorily ; and, from one dose of the composing mixture (containing twenty minims of the sedative) he had procured a considerable share of sleep. He had perspired occasionally, with freedom. The urine was now lighter, and deposited lateritious sediment copiously. The alvine discharges indicated an improvement of the biliary secretion. The tongue



was less coated. The countenance of the patient was expressive of the alleviation from suffering ; and it was evident that the force of the disease was in a great degree subdued. The blood was less cupped than before, and had not so dense a coat of fibrine. The portion in the second basin shewed most of this character ; that in the last presented almost a red surface.

Formerly, it was supposed that such differences in the appearance of the blood were owing merely to some variation in the stream of blood ; but I have ascertained, by repeated experiment, that the absolute quantity of fibrine differs very materially in respective portions of the drawn blood, at the same bleeding. This is a curious circumstance in the functions of the animal economy, and one which does not allow of easy explanation. I have offered my opinion on this and other phenomena, in my Essay on the Blood.

As general fever subsided, the application of the lotion to the affected parts, proved equally refreshing and useful.

The progress of this case was perfectly satisfactory. In about a fortnight from the first day



of the attack, I was enabled to prescribe the sulphate of quinine. I never witnessed a recovery more speedy or complete.

#### CASE IX.

Acute Rheumatism. The symptoms complicated, and apparently modified by a specific virus in the blood. The inflammatory diathesis predominant, notwithstanding great debility. Bleeding very useful.

A YOUNG married man, a surveyor, had undergone great fatigue for some time, in the duties of his profession, and appeared thin and out of health. He was of the nervous temperament, but, when in health, looked strong and muscular. An ulcer formed on the glans penis, which soon spread and assumed a phagedænic appearance. No glandular enlargement followed. He declared that it formed spontaneously. He was put upon a mercurial course ; and, whilst rather strongly under the influence of mercury, he was exposed to night air in travelling. From this moment, he experienced pains, which appeared to be rheumatic, in the forehead, the knees, and the shin bone of each leg.

The ulcer had begun to heal, but, after this ex-



posure, became irritable, and disposed to penetrate deep. The mercury was now administered more freely, and, in conjunction with it, strong syrup of sarsaparilla. Colchicum, either with tincture of opium, or Dover's powder, was given at night. He was confined to the house, and soon became extremely ill. For a fortnight, however, the treatment appeared to be successful, as the ulcer was healing, and the general pains abated. His gums became sore. Almost suddenly, without an evident cause, the case took an unfavorable turn. The pain of the shins, and of the forehead, became excruciating ; and large doses of opium were found necessary at night, in order to procure sleep. He was rendered feverish and weak by the action of the mercury, and its use was suspended. Another ulcer had formed, near to the former. Sulphate of quinine was given, and with it a supporting diet ; as it was conceived that he was suffering from depression of power and irritability of constitution. The colchicum, with opium, was continued at night.

For a short time, he improved under these means, but then again relapsed ; and, at the end



of two months, the period when I was first consulted, he was suffering in a severe degree, and was supposed to be in some danger. I found him confined to the bed, much reduced in flesh, anxious in mind, and irritable in body, affected with paroxysms of pain, of the most intense nature, chiefly over the tibia of each leg ; but also in the knee and foot of each limb, and in the forehead. There was periosteal thickening of each tibia, and the surface was exquisitely tender. The forehead was puffy, but not very tender. In the other parts, there was bursal and thecal fulness. He was sometimes feverish, and had profuse perspirations at night. The tongue was coated with a dark whitish fur ; the urine was of the colour of deep brandy, without sediment ; and the alvine discharges were dark. The pulse was 88, hard and full ; certainly a pulse of much action. The ulcers had been stationary, but were not painful. At this time, the treatment consisted in the use of quinine twice a day, and of vinum colchici and Dover's powder, in a saline draught, at night. He was allowed animal food at dinner, with three glasses of wine.



It was evident that a new plan of treatment was required ; for the tonic method had not improved the strength, nor moderated any part of the disease. I was induced, therefore, by the state of the pulse, by the appearance of the urine, and by the symptoms of high excitement, which the patient described himself as feeling occasionally, at once to consider that the inflammatory diathesis was prevailing, in conjunction with other circumstances, and that this must be removed, as a preliminary to any other measures. I directed, accordingly, bleeding from the arm to sixteen ounces ; a saline draught, with a  $\frac{1}{4}$  of a grain of tartarised antimony, and  $\text{m viii.}$  of tincture of digitalis, three times a day ; and at night, a grain and a half of opium, and  $\frac{1}{8}$  of a grain of oxymuriate of mercury. The diet to be restricted to the use of gruel, tea, and diluted milk, with arrow root, sago, or bread.

On the following day, I found the patient rather relieved, having passed a better night, with less pain and without perspiration, which had not, on any occasion, afforded the least relief. After the third draught, he had vomited bile. The pulse was 80, rather less full and less hard,



but still had much of these characters. The blood had a thick buffy coat, and was strongly cupped. The urine was not quite so deep in color. The bleeding was repeated to twelve ounces. He bore this evacuation well on each occasion. The medicines were continued; a scruple of sulphate of potash being added to each draught. The periosteal pain being occasionally severe, a liniment, consisting of equal parts of extract of belladonna and cetaceous ointment, was applied over each tibia.

Next day there was an evident amendment; and, as the patient described himself to be much more comfortable, and not more depressed in his strength, the pulse also being still 80, and very firm, and the blood having still a considerable buffy coat and a tough clot, I directed another bleeding to twelve ounces. The draught had not caused nausea. He had found great relief from the liniment of belladonna. The medicines were continued.

On the succeeding morning, the propriety of the new plan of treatment was rendered very manifest. The night had scarcely been interrupted by any pain. The anxious expression of the countenance was exchanged for the look of ease.



and tranquillity. The pulse was 74, and soft. The urine was natural. The appearance of the blood was natural. The tongue was much less furred. The bowels required the assistance of an aperient. The ulcers were rather amended in appearance. They were touched with argentum nitratum, which was used frequently afterwards. The following pill was prescribed to be taken three times a day : R Hydr. oxymur. gr.  $\frac{1}{8}$ . pulv. opii, gr.  $\frac{1}{2}$ . ammon. muriat. gr. ii. micar. panis. gr. i. aquæ distillat. q. s. The draught was continued twice a day, without digitalis. At the end of a week the gums were tender, and the pill was discontinued. A mixture prepared from the cortical part of sarsaparilla was substituted for the draught. Animal food and a wine glass of sherry were allowed once a day.

At the end of another week, the use of hydr. oxymur. was resumed in the dose of  $\frac{1}{12}$  of a grain, without opium ; sarsaparilla, and sulphate of quinine, being given by turns, in the permanent plan of treatment. The cure went on without interruption ; and, at the end of six weeks from the commencement of the measures which I had recommended, the patient was convalescent.



About a year has elapsed since his perfect recovery.

I could not avoid entertaining a suspicion that a *specific virus* was operating in this case. Exposure to cold, under irritation arising from mercury in the first instance, and full diet being allowed soon afterwards, appeared to concur in producing a truly inflammatory diathesis, which caused deceptive symptoms of depression and debility. It was to no effectual purpose that colchicum and opium were given, or that the active use of mercury was resumed, whilst this peculiar inflammatory irritation was predominant. The oxy-muriate succeeded incomparably better than the pilula hydrargyri, which had been given previously in full doses.

I should add to my account, that, in the second week of my attendance, the patient continued to complain, occasionally, of universal pains, especially in the back and shoulders, which appeared to him rheumatic; and he was extremely chilly and sensitive to the least reduction of temperature in the apartment. He derived material relief and comfort from putting on a fleecy hosiery waistcoat



and drawers ; and, when afterwards he went abroad, had the further defence of waistcoat and drawers of shamois leather, it being still the cold season of the year.

I have known, in many instances, that the patient, recovering from acute rheumatism, has derived remarkable benefit from having recourse to fleecy hosiery, in preference to flannel ; a point in the general management which seems worthy of consideration ; more especially at those seasons of the year, when the variableness of the English climate requires the utmost care and circumspection in quitting the warm chamber.

#### CASE X.

Acute Rheumatism, almost distinctly of the synovial membranes.  
Colchicum useful ; but opium, antimony, and purgatives, also employed.

A GENTLEMAN, aged forty-seven, apparently healthy, but of the nervous temperament, was attacked in August, 1826, by acute rheumatism, after an exposure to the east wind, without his usual protection of a great coat. On the same



evening he experienced shiverings, followed by fever, with pain, and swelling of each knee. He passed a sleepless night.

I visited him on the following morning, and found much bursal swelling at both knees; and these enlargements were hard, tender, and without discoloration. He had not the least power of moving the knee joints. The pulse was 120, and full, but not hard; the tongue was already coated; the urine of a deep colour, without sediment; the bowels were confined.

I prescribed pills with calomel, &c. as at page 201, to be followed, in two hours, by sufficiently repeated doses of a purgative mixture of senna to affect the bowels very freely; after which, he was directed to take the following draught every five or six hours: R Potass. carbon. gr. xxvii. succ. citric. recentis. ʒss. mist. camphoræ, ʒi. syrup. tolutan. ʒi. vin. colchi. ʒss. pulv. ipecac. compos. gr. iv. M. And at bed time, pills with hydr. submur. pulv. Jacob. and crude opium. The lotion, page 120, was applied by compresses to the knees. The diet was fluid and simple.

On the following morning, I found some



abatement of many of the symptoms ; the opium had relieved the severe pain, much sleep had been procured ; but there was an extension of rheumatism. The loins and the right sciatic nerve were painful ; the sheaths of the tendons of the right wrist, and of the tendons of the right foot, were distended, but these parts were not very painful, unless upon motion. The pulse was 120, the skin was hot, although occasionally relieved by perspiration ; but the most conspicuous constitutional symptom, was great restlessness.

The same means of treatment were continued, and with so much success, that all the acute symptoms were removed in ten days, when sulphate of quinine was given with great advantage.

This was a case of rheumatism almost distinctly affecting synovial membranes, and tends to support the statement which I have quoted at page 189. There was no evidence of a ligament being affected.

Colchicum proved remarkably useful in relieving the symptoms.

This gentleman gave me the following general history of his complaint.



In August, 1817, he became sensible of swelling and lameness in one leg, with hard lumps in different parts; and soon after, he found a swelling of the thigh, which he was informed was in the rectus muscle. The swelling was sometimes "as hard as a stone," not tender, but causing lameness. The complaint was not relieved by any treatment which he used, but gradually subsided after many months. In about a year, the swelling of the thigh returned, and with it, severe rheumatic pain in the muscles of the neck; and a few days afterwards, rheumatism in the feet and hands with swelling and pain took place, not attended, as I imagine, with any affection of the ligaments.

He has had frequent recurrences of the enlargement in the thigh; and, for a considerable period, has been almost constantly incommoded by a dense mucous discharge from the urethra. In one of his rheumatic attacks, the eyes became inflamed; and with symptoms of pain and intolerance of light.

The tunica conjunctiva was in this case the chief seat of disease, as he mentions that "a mucous discharge from the eyes was considerable and con-



stant." He found relief from the application of a cold lotion ; but warm poppy fomentation very much increased the irritation.

## CASE. XI.

Intermittent muscular pains, of a rheumatic character. Colchicum unsuccessful. Cure obtained from the use of black drop, and afterwards sulphate of quinine ; together with mild aperients.

A GENTLEMAN, aged thirty-nine, of the nervous temperament, bilious, but usually enjoying comfortable health, had been suffering from severe rheumatic pains for about a month. His illness commenced after exposure to cold, with shivering, followed by heat of skin, inflammatory sore throat, severe pains in the muscles of the neck and arms generally. At my first visit, I learnt that he had taken colchicum and purgatives without permanent relief ; and he complained of entire loss of appetite, with occasional sickness, of general debility and depression of spirits. Occasionally, there was lateritious sediment in the urine ; but the biliary secretion appeared to be, for the most part, healthy. The tongue was rather coated with



brown fur. He spoke of occasional palpitation of the heart, and of frequent flutterings in the left side of the chest. The pulse was 88, not firm, and now and then intermittent. At this time, the pain, which was extremely severe, affected chiefly the thighs and the calves of the legs, and the right sciatic nerve. It was periodical, coming on about nine every evening, and continuing till three or four in the morning, when some perspiration would take place, relieving the previous feverish heat; and then sleep, not of a refreshing kind, would follow. During the day, the affected parts were universally sore, and he walked with evident difficulty.

I first prescribed a calomel purgative, and then saline draughts, containing in each eight drops of the black drop, to be taken every eight hours; from which he received great and immediate relief. In three days, the tongue becoming clearer, and the attack still returning at night, although materially abated in violence, I directed the sulphate of quinine in doses of two grains every three or four hours during the day, and, at night, the anodine draught, if it should be



required. This was not necessary after the second night. The bowels were regulated by means of pilul. al. c. myrrh. The treatment was perfectly successful, and the patient recovered in a short time.

I relate this case rather for its usefulness than its particular novelty. I considered that colchicum had been given too freely, and more especially as it had only afforded relief in the first instance. On the principle which I have stated, p. 170, I would not, for a continuance, pursue the use of this medicine in any of its forms when the chief object is the correction of the state of the digestive organs. To allay the irritation of the nervous system, and give it tone, were the indications in this case; and fulfilling them, I was not disappointed. I may add, that the pains had entirely a rheumatic character. They had been induced by cold, and were much aggravated on a damp and cold day.

#### CASE XII.

Rheumatism in its different forms, kept up by disorder of the biliary system and the digestive organs. The cure gradually effected by means of treatment founded on this view of the case. The argument extended.

A GENTLEMAN, aged sixty, tall and robust, but



possessing the nervous temperament in a remarkable degree, and a highly bilious diathesis, had been labouring under rheumatic symptoms for several months, in the acute, sub-acute, and chronic forms, at different periods. He related to me, that, in the first instance, he took cold from exposure to the east wind after using a warm bath. He felt lumbago on the same evening, and on the following day was affected with rigor, and fever, and inflammation and swelling of the hands. The shoulders, knees, and ankles were attacked in quick succession. He remained very ill with acute symptoms for many weeks, and the disease only subsided into the chronic state.

I found him suffering from rheumatism in the hands and knees ; from lumbago, and from a constant aching pain in the inferior parts of the right shoulder blade. He complained of an extreme sense of debility, and of such nervous depression, that he could scarcely converse without shedding tears ; and he was startled by the least noise ; and agitated by trifles. He had lost flesh very much, and the muscles, generally, appeared remarkably relaxed ; the tongue was coated with a



yellowish fur ; the urine was variable, but for the most part of a dark colour, and deposited lateritious sediment very abundantly. The fæces were of a clayish colour, when the bowels acted naturally ; and, from the influence of purgative medicine, exhibited usually, an olive-green appearance, with a shining scum (the pellicle of ammoniaco-magnesian phosphate), and accompanied by unusual foetor. The pulse was irritable, but not weak. He had taken *vinum colchici* on several occasions, sometimes with a palliation of the symptoms ; but certainly he had not derived from it any material benefit. He had taken various tonics, and nervous medicines, and sometimes mercurial purgatives.

It was evident that a case of this nature could only be properly treated with reference to the state of the digestive organs generally. During the day, therefore, I prescribed a free use of purgatives ; giving, every night, moderate doses of calomel and colocynth. He dreaded the effects of opium, as commonly administered, more than pain ; but he experienced such intolerable restlessness, that sedative medicine was absolutely



necessary, and I administered, with perfect success, the mixture with acetate of morphine and hydrocyanic acid, using only one drop for the dose of this latter medicine. Having accomplished my leading object by means of active medicines, I instituted a course of alterative treatment, directing, each other night, the following pills: *R Pilul. hydr. submur. compos. gr. iii. extract. rhei. gr. v. extract. colocynth. compos. gr. ii. ol. carui. i. M. et fiant pilulæ ii.* Twice daily, he took  $\text{ʒiii.}$  of the following mixture, mixed with an equal portion of hot milk: *R Corticis\* radicis sarsaparill. contus. ʒiii. liqu. calcis.*

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\* It has often been a disputed point, whether or not sarsaparilla be really a useful medicine. No one can censure it as hurtful; and the most moderate praise allowed to it is, that it exerts a beneficial influence on the stomach and bowels, as a mild and nutritive diluent. We are not to speak of it as a powerful medicine; but we are not required always to act with strong agents, and it is important to have the certainty of not doing harm, whilst we are attempting good.

I believe that Mr. Battley, of Cripplegate, first pointed out the fact, that the most useful, if not the only useful quality of sarsaparilla resides in the cortical part. I have long found advantage in directing this part to be used exclusively for all the forms of the medicine. Cold lime water extracts rather more material, than water simply, either hot or cold. The lime water loses its ordinary property of affecting vegetable colour; from which,



℥xiii. Macera per horas duodecim et cola. R Hu-  
jus colat. ℥xii. syr. sarsaparill. (ex cort. ppt.) ℥ss.  
extract. sarsaparill. (ex cort. ppt.) ℥iv. spi. vin.  
ten. 3ii. (best brandy). M. fiat mistura.

A warm bath was used every fifth day, with a sense of comfort and advantage. The limbs were treated by friction and shampooing. The diet was most carefully regulated ; without which care all treatment by means of medicine would necessarily fail. In the course of two months, this patient recovered.

It is quite clear, that most cases of protracted rheumatism are more or less intimately connected with an unhealthy state of the digestive organs, and especially with error in the biliary system.

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we must infer, that some weakly acid principle in the sarsaparilla becomes neutralised. An agreeable mode of taking the lime water infusion, consists in mixing it with an equal portion of boiling milk. If it be wished to join a mineral acid with a decoction or infusion of sarsaparilla, we should use water as the menstruum ; and the boiling process continued for a quarter of an hour seems to be more useful than marceration in cold water.

When sarsaparilla is given in its concentrated form, as I have here stated, it is nutritive, and capable of rendering great benefit to the stomach, and to the whole system.



The fact is perhaps now so universally understood, that it might seem unnecessary to dwell upon it; but we cannot make our minds too familiar with such practical truths as have the most essential bearing on the treatment of a disease. As a palliative medicine, in cases of the same nature as the present, colchicum will often prove useful, but, I think, seldom or never curative; and it should be used with care.

The character of the disease, even in an attack of acute rheumatism, will be influenced much more by the condition of the digestive organs of the patient, than by any other single circumstance. But in this form of the complaint, we have other difficulties to contend with, as an inflammatory state of the limb attacked; fever; and severe and continued disturbance of the nervous system; so that our treatment must be more comprehensive and more active than in the chronic form of the disease, which allows us to pursue our measures with greater deliberation.



## CASE XIII.

Palpitation of the heart, preceded, at an interval of a year and a half, by acute rheumatism. The cardiac symptoms extremely urgent, but yielding entirely to a combined plan of treatment.

A GENTLEMAN, aged fifty, of the most irritable constitution, a bon vivant, and accustomed to take extraordinary exercise on horseback, enjoying uninterrupted health till the age of forty-eight, was seized with acute rheumatism in the spring of 1823. He was left weak by this attack, and was affected with some chronic symptoms ; for which he visited, with complete success, the baths of Buxton.

In eighteen months after, he was seriously indisposed with palpitation of the heart and nervous agitation, in the highest degree. Of the exquisitely sensitive state of the patient's mind, I am unable to give an adequate description. If he attempted to take rest in bed, he was soon disturbed in his sleep by horrid dreams, and awoke suddenly with the most immediate dread of dying. He would obtain some repose afterwards in an easy chair, reclining a little, with the legs supported.

His brother had died from disease of the heart,



as proved by examination ; and I need not remark, that the mind of my patient was saddened with additional apprehensions on this account. He complained of a sense of weight in the region of the heart, but not of pain. He had frequent pains in the middle of the arms ; the head was disturbed with nervous sensations ; the pulse was usually 100, and partook of the irregular action of the heart ; the tongue was creamy-white ; the urine deposited a colorless sediment copiously ; the alvine discharges were, for the most part, of a clay color ; the temperature of the skin was irregular, and at night, when he most experienced agitation, faint perspirations sometimes broke out profusely.

The investigation of this case was an anxious point. Was this the commencement of hypertrophy of the heart in connection with rheumatism ?

The countenance of the patient was naturally florid, but now it had a bloated appearance. I was struck by the remarkable fulness, which he had acquired within the preceding few months, in the abdomen ; and this was most evident in the right hypochondrium.



He had been living in a very indulgent manner, regularly taking a large quantity of wine ; and he had not paid any attention to the action of the bowels, for he had a great dislike to medicine. He had continued his exertions in horse exercise, as much as he was able, under an idea that this would be useful in his case.

At that time, I was not acquainted with the use of the stethoscope (and did not think of immediate auscultation) ; but, so far as I could determine by manual examination, I concluded that the range of pulsation of the heart was not much extended ; and, reflecting upon every circumstance of the case, I indulged the hope that the remarkable disturbance of the heart's action, and of the nervous system, was of a secondary nature, and caused by an *engorgement* of the vessels of the liver, which was also torpid in its secreting functions.

It was important to impress this opinion strongly on the mind of the patient, whose fears of sudden death from disease of the heart were often raised to the highest pitch. He was peculiarly sensitive to the influence of certain medicines : opium produced a most bewildered feeling, which he com-



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pared to madness ; calomel caused an immediate fever of irritation, a clammy state of mouth and loss of appetite ; and tonics heated him exceedingly.

I prescribed to be taken, each night at bed time, two pills, consisting of pilul. hydrarg. gr. iii. extract colocynth c. gr. iv. lactucar. ver. gr. ii. M. each morning early, potassæ tartrat. ʒiss. mannæ, ʒiss. infus. sennæ, ʒxii. tinct. sennæ, ʒi. syrup. rosæ ʒss. ; and twice a day the following draught :  
 R Potassæ carbonat. gr. xxvii. succ. citric. recentis, ʒss. mist. camph. ʒj. tinct. digitalis, m. viii. ad m. xii. acidi. hydrocyan. m. ii. ad m. iv. syrup. to-lutan. ʒi. M. The diet was most strictly regulated, and as little food as possible was allowed. Every fluid stimulus was prohibited. Entire repose was enjoined ; and, I repeat, assurances were stated again and again to the patient, that all the disease was in the digestive organs.

The advantages of this plan of treatment soon became apparent ; and the extreme despondency which had afflicted this gentleman's mind was exchanged for the pleasing hope of recovery.

The daily action of the aperient produced a discharge of the most vitiated secretions. After a



week, the pills were given each other night only, as mercurial influence had begun to cause irritation. In a short time, the patient could remain in bed, lying high, and with an attendant in the room, for he dreaded to be left alone.

In about six weeks all the urgent symptoms had ceased. The abdomen was reduced to a proper size ; and this I regarded as a great criterion of favorable change within. A corresponding improvement took place in the secreting functions.

In comparison with his former state, the patient was now scarcely nervous, and but seldom experienced the palpitation of the heart. The sensation was rather that of fluttering in the breast.

Soon after this period, he went to Brighton for change of air ; used a tepid bath twice a week ; took very gentle exercise, was allowed a more supporting diet (but nicely regulated), with one glass of sherry at dinner ; the hours of taking rest and of rising, to be early ; and he was desired to take the aperient pills and draught twice in the week. The following draught was directed to be taken at noon daily :  $\mathcal{R}$  Sulphat. quinin. gr. i. infus. rosæ. 3xii. syrup. aurant. 3i.  $\mathcal{M}$ .



I am happy to add, that this gentleman perfectly recovered at the end of a few months, and remains well at the present time, not having suffered the least return of indisposition.

The case is important, as shewing the force of secondary disturbance in the nervous system, arising from primary disorder of the hepatic functions; the whole taking place without organic lesion. I have mentioned that the sediment of the urine was colorless. It contained an excess of urate of ammonia. Urine of this description is clear when passed from the bladder; and, after cooling, is again rendered clear by the application of heat; but such urine as contains the phosphates in excess, is turbid when first evacuated. I have often noticed, that when the urates are in excess, conjoined with colorless animal matter, the nervous state of temperament prevails; and that the sanguineous more particularly exists where the excess of urates is accompanied with sediment of a lateritious or pink colour.

There is no form of disease in which the judgment and the humanity of the physician come more into requisition, than in cases of alarming disorder



of the functions of the heart. The diagnosis is most important, even if our own reputation be alone considered ; and the *prognosis* should be pronounced with the most tender care not to add to the nervousness and horrors of the suffering patient, who is often still more afflicted with terrible apprehensions of mind, than with actual bodily suffering.

I shall offer a brief narrative of a few other cases of affection of the heart, more or less connected with rheumatism.

## CASE XIV.

Metastasis of disease to the heart. The result fatal.

A GENTLEMAN, aged forty-seven, of the nervous temperament, well formed, and usually healthy, had suffered twice from acute rheumatism, the first attack having occurred eighteen years before the last, about three months before the commencement of a disordered action of the heart, which I shall presently describe. Chronic symptoms were left by the acute attack of rheumatism, which affected the synovial membranes, the liga-



ments, and tendinous structure. The chronic symptoms continued for a considerable time after the invasion of the cardiac disease, but at length almost wholly passed away. Certainly there was no abrupt cessation of the rheumatic disease on the supervention of that of the heart, which could possibly be considered in the light of metastasis.

The disease of the heart was tedious in its course.

The limbs finally became universally anasar-  
cous. Powerful medicines produced at different times some flattering appearances of amendment; but at length death closed the scene.

The heart was found enlarged to almost double the natural size. The auriculo-ventricular valves were so much ossified, that they must almost wholly have ceased to perform their office. There was serous effusion into the pericardium, and into the thorax.



## CASE XV.

Acute Rheumatism. Pericarditis supervening, and quickly proving fatal.

A YOUTH, aged seventeen, was attacked by the usual symptoms of acute rheumatism, which had continued in a severe degree for a fortnight; a very quick transfer from one part to another being the most remarkable circumstance in the case. Suddenly, and with an abatement, but not a cessation of the rheumatic inflammation of the limbs, the patient was seized with symptoms of pericarditis, precisely corresponding with my description at page 123. Notwithstanding the most prompt and active treatment, by the use of general bleeding, leeches, blisters, digitalis, &c. the poor youth died at the end of the third day.

Upon examination, the fibrous layer of the pericardium was found partially adhering to the heart, by recently formed portions of fibrine; and the bag of the pericardium contained a few ounces of turbid serum.



## CASE XVI.

Palpitation of the Heart, with symptoms indicating disease of its structure. Its action rendered more irritable by an attack of rheumatism. A fatal termination of the case.

A GENTLEMAN, aged thirty-nine, of the nervous temperament, and of bilious diathesis, was attacked, on one of the hottest days in the beginning of summer, two years before he fell a victim to his disease, in the following manner. He had fatigued himself with exercise, and, immediately on returning home, went into a cold wine cellar. Almost directly afterwards, he experienced faintness. He went to bed very ill, and, during twelve hours, was in the most restless state, and apprehended approaching death. The countenance was cadaverously pale, the lips and the nails blue, and it was requisite to administer strong stimulants at short intervals, to avert fainting and keep on life. At length, the powers of the circulation being recruited, attention was paid to the bowels; and his medical attendant relates, that he never witnessed an instance of the intestinal canal being more loaded with foul accumulation; and that the func-



tions of the liver were not rendered healthy till after a patient perseverance in the use of aperients, alteratives, and a regulated diet, for three months. He had enjoyed an interval of tolerable health, but had not recovered strength.

It appeared, upon inquiry, that he had usually enjoyed regular although not strong health. On taking quick exercise, he always found his respiration inconveniently hurried, but did not complain of any serious inconvenience.

At the end of autumn, in the same year, after having taken the usual exercise of the day, he was suddenly seized, when sitting still, with syncope, and, for the space of a few minutes, appeared to the bystanders to be dying. Cordial stimulus was promptly administered, and he recovered without a consciousness of what had passed. Such attacks became rather frequent; and, on most nights, when first lying down, he was affected with a sense of oppression of breathing, sometimes amounting to a feeling of suffocation, which compelled him instantly to sit upright, and take cordial nervous medicine; after which, lying down with care, and with the head raised, he would pass the night in tranquillity and sleep.



At the end of the following year he was attacked by sub-acute rheumatism, which chiefly affected the arms and the muscles of the chest. The cardiac symptoms previously described became much more frequent. A serious apprehension was entertained by his medical attendants that an important disease had formed in the heart. His father had died, at an advanced age, with disease of the valves of the heart, which were found ossified.

A few months after I first saw this gentleman, I found him in a very nervous state. His complexion was dark and unhealthy, he was reduced in flesh, and he looked languid and weak. He was still suffering in some degree from rheumatism in the arms and in the situation of the diaphragm. The pulse was 98, and remarkably dilated, as if the artery wanted power to resist the current of the blood. It was rather a throbbing pulse, and it was rendered irregular by slight causes. The respiration was not comfortable, but he could expand the lungs fully. He felt an indescribable sensation about the heart, "sometimes as if the blood took a sudden rush across the breast." He was affected with palpitation and short breathing on walking quickly, always after ascending stairs,



and immediately upon any agitation of mind ; and, I may add, his mind was disturbed by very slight causes. Usually, the range of the action of the heart did not appear to be greater than natural.

The nervous symptoms, and the debility and languor of the patient, appeared to demand a supporting treatment, although it was evidently necessary to use stimuli with caution. The action of the bowels and the biliary secretion were carefully regulated ; and at the same time a tepid shower bath was used ; and subcarbonate of iron was taken twice a day. In a short time, the pulse became reduced to 78, and preserved its regularity much better than before. He could take a good deal of walking exercise without inconvenience. He was still subject to occasional attacks at night, such as I have described, but was, as before, soon relieved by medicine.

About two months from this period, after having passed the day, and indeed the previous week, with very comfortable feelings, he went to bed free from inconvenience, and slept calmly. He awoke in a few hours without agitation, turned on his right side, suddenly breathed with noise and difficulty, but not with stertor, and in less than two minutes he expired !



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An inspection of the body was made, and the following is a concise account of the appearances of the heart.

It was very considerably increased in volume ; there were firm and universal adhesions between the corresponding surfaces of the pericardium ; the right auricle and ventricle were enlarged to twice their natural capacities ; the edges of the tricuspid valve diseased ; the left auricle and ventricle greatly enlarged, the former to twice, the latter to more than twice, its natural dimensions ; edges of the mitral valve diseased ; semilunar valves of the aorta thickened, with appearances of incipient ossification ; this artery was very much enlarged, and its muscular coat was ruptured.

In this unfortunate case we may attribute the suddenness of the fatal event to the morbid condition of the aorta.

CASE XVII.

Palpitation of the Heart. Suspicion of organic disease. Perfect recovery of the patient, by means restorative of the general strength.

I REMEMBER the general particulars of the case of a gentleman, of the age of thirty, which occurred twenty years ago. He had been suffering



from a severe intermittent fever, and had been bled repeatedly. He became much debilitated ; and, soon after, was troubled with violent palpitation of the heart. This increased to a most distressing degree. He consulted an eminent surgeon, who was induced to express his opinion as to the question, whether there was organic disease of the heart, in guarded terms ; and from that moment, the apprehensions of the patient arose to a melancholy height. He assured himself that there was not room in the chest for the heart to act, and that it must burst ! He arranged his affairs, and took all the means in his power, he said, to prepare for sudden death, which he constantly expected.

It was then resolved that the case should be treated as one of high nervous irritation ; and all the combined means were employed which could be considered favorable to sooth disturbance, and to improve the powers of the constitution ; and every care was also taken to cheer and alleviate the mind. The happy sequel was, that this gentleman perfectly recovered, and enjoys an excellent state of health at the present time.



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CASE XVIII.

Palpitation of the heart, induced by mental causes, supposed, however, to have been a rheumatic affection. The cure effected by means which restored the powers of the nervous system.

A YOUNG LADY, aged twenty-one, of slight figure and delicate appearance, of the nervous temperament, and subject to bilious obstruction, was affected with palpitation of the heart in a very great degree. She had suffered from a severe attack of acute rheumatism when fourteen years of age, but had not experienced any symptoms of that disorder subsequently. Within the last year and a half, her mind had been powerfully affected from a disappointed attachment ; and this appeared to be the introductory cause to the complaint of the heart.

She experienced occasional slight pain in the region of the heart ; and upon the least hurry in exercise, or from ascending a pair of stairs, the action of the heart became exceedingly palpitating or fluttering, and the respiration extremely quick. The pulse was never less than 120, and, not unfrequently, it increased to 160, and seemed to fly



under the finger. The spirits were depressed and the mind was agitated by the slightest trifles. The patient was often alarmed with the dread of sudden death. The appetite was natural ; the bowels were usually confined ; the periods were rather irregular.

The case had been pronounced a rheumatic affection of the heart, and had been treated by the local application of leeches and blisters, and by the use of colchicum and mercurial aperients. With these means, the disorder appeared to be increasing, when I first visited this young lady.

I prescribed the sulphate of quinine three times a day, and regulated the bowels by means of pills with scammony and colocynth, with an occasional use of the pilula hydrargyri. I directed also, that the diet should be rather generous. These measures agreeing perfectly well, I proceeded, after an interval of three weeks, to the use of carbonate of iron, of the shower bath (first at a tepid temperature), and also directed very gentle horse exercise in the country air.

In about half a year, this young lady quite recovered her health.



The remote period at which the constitution had been affected by acute rheumatism, appears to disconnect that disease from the affection of the heart in this case ; and, I conceive, it might be more justly attributed to the influence of mental emotions operating upon a very sensitive frame. This, like the two preceding examples, instructively points out in how great a degree an undue irritability in the action of the heart may deceive the medical judgment in regard to the probability of diseased organisation ; and that, in cases of this nature, any existing obstructions being first removed, tonic remedies constitute the proper method of treatment. The mischief, however, resulting from excess of nutriment and stimulus, is exemplified in Case XIII.

## CASE XIX.

Acute Rheumatism. Metastasis to the brain, proving fatal in a few hours.

A YOUNG LADY, aged fifteen, of slight figure and remarkably delicate constitution, had been laboring under acute rheumatism for a fortnight, in



the upper and lower limbs. At the knee and in the hands, the synovial textures were the parts affected; but at the ankle joints, chiefly the ligaments. Suddenly, in the morning, she complained of severe pains of the head; the rheumatism still continuing in the limbs, without manifest abatement. In the afternoon I saw this patient for the first time, and found her affected with a considerable degree of coma. When roused to give an account of her feelings, she expressed that her limbs ached, but that her head was most in pain. The pulse was 130, and small; the countenance pale; the pupils were remarkably contracted; and she appeared to be sinking. I learnt that the rheumatic inflammation in the limbs had frequently changed its seat; and that ordinary and rather simple means of treatment had been pursued. In these urgent circumstances, leeches were applied to the temples and forehead; a blister to the neck, and sinapisms to the feet, together with the administration of internal medicines. But these efforts were useless. Death took place before midnight.

Upon examination of the brain, there was a considerable serous accumulation between the tunica



arachnoides and the pia mater, and the vessels in the superficial part of the brain appeared preternaturally vascular.

M. G. Andral Fils, in his volumes of *Clinique Médicale*, has related some instructive cases of the metastasis of inflammation to internal parts during acute rheumatism. As it is extremely interesting to be acquainted with the medical practice of other countries, and particularly that adopted at La Charité, as reported by this diligent and able pathologist, I shall attempt an abridged report of some of the cases which he has stated.

OBSERVATION XXX<sup>e</sup>.

[T. II. p. 502.]

A double pleuritic effusion coincident with the disappearance of rheumatic pains. The cure rapid.

THE patient, a man of strong constitution, aged forty, admitted October 26th. Recently seized with acute rheumatism; swelling and redness of the wrists, knees, and ankles. Intense fever; no apparent lesion of other functions. After repeated bleedings, seized all once with a great oppression,



and at the same time a diminution of the rheumatic pains ; the horizontal posture insupportable ; extreme anxiety depicted in the countenance. Percussion of the chest on the back or hinder part of the two sides, gave a dull sound ; in the same direction the voice like that of the goat (*egophony*) ; and the respiration *bronchial*. Not any pain in the parietes of the chest. (Thirty leeches to each side of the chest.)

On the 28th, less oppression ; pulse very frequent : the signs, by auscultation and percussion, as before. (Twenty leeches to the arms, two blisters to the legs.)

On the 29th, the third day from the first appearance of the dyspnœa, the sound on the right side less dull, and on this side the bronchial respiration replaced by a very feeble noise from the pulmonary expansion ; the *egophony* continuing. On the left side no change. Respiration better ; cough not frequent ; pulse less frequent.

During the following four days, the dull sound, the bronchial respiration, and the *egophony* disappeared ; the respiratory sound natural throughout. The fever ceased, and the cure soon com-



pleted, without any recurrence of the rheumatic symptoms.

In commenting on the case, M. Andral observes, that "it affords a proof that a double pleuritic effusion is not always mortal." No mention made of the internal medical treatment.

#### OBSERVATION XXXI<sup>e</sup>.

Pneumo-pleurisy, with double effusion, the invasion of which was coincident with the sudden disappearance of rheumatism\*.

THE patient, a muscular man, fifty years of age, experienced, on the 15th of September, a violent head-ache, which continued till the 21st; at the same time a general rending of the limbs, oppression, strong and continued heat, thirst, loss of appetite, at first constipation, afterwards diarrhœa.

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\* I take pleasure in stating that I have seen but few instances of metastasis of rheumatism to internal parts; but, in such as have come under my observation, the rheumatic inflammation in the limbs has never disappeared in the remarkable manner stated by M. Andral; and indeed has only abated more or less. The pain also has lessened in these circumstances, but not ceased. These examples now quoted may, by some, be considered as examples of retrocession; by others, of *conversions* of disease.



On the 21st, intense fever ; the tongue red, and tending to be dry ; diarrhœa ; a slight cough (he had been troubled with an habitual cough for many years, which had not much incommoded him). Twenty leeches to the anus ; bleeding to twelve ounces. The blood presented a thick buffy coat.

On the 22d, the fever was moderated, as also the diarrhœa ; but the right arm, and especially the articulations of that limb, were affected with pain, which was increased by motion and pressure. A second bleeding, and the blood buffy. The pains did not abate. In the evening a shivering for the first time, and afterwards a copious sweat.

In the morning of the 23rd, when the sweating was scarcely over, another and a stronger shivering ; the cough not increased, nor the breathing apparently straitened. Repeated shiverings, succeeded by fever, in the course of the day. In the evening the rheumatic pains disappeared ; at night an intense pain between each breast, soon succeeded by a sense of constriction, as if the breast had been strongly pressed between two vices. Great dyspnœa and anxiety. The night passed in lamentable agony.



On the 24th, the breathing very short. On the least movement a dry and convulsive kind of cough. Percussion of different parts of the chest gave but little sound. Respiration very strongly audible under the two clavicles; very feeble in the posterior part of each of the sides. Not any trace of egophony. Lay on his back. Bled to sixteen ounces; twenty leeches on each side of the thorax; blisters to the legs. Oppression increased, with viscid expectoration of a rusty colour. In the night, threatened with immediate suffocation; death early on the morning of the 25th. No mention made of medicines being used in the case.

On the examination of the body, nearly two "*litres*" of greenish pus were found effused into each pleura. False membranes, recently formed, covered them. On the external surface of the right lung, eight or ten small softened tubercles. The mucous membrane of the stomach red and softened through its whole length. These were the chief morbid appearances.

M. Andral considered this case to be a metastasis of rheumatism. He expresses his surprise at the existence of pulmonary tubercles in an in-



dividual who appeared to be strongly formed, and apparently presenting the least favourable conditions for their development.

This case seems to illustrate my former observation at p. 215, of the serious consequences to which acute rheumatism, commencing without formidable appearances, sometimes leads, in constitutions unfavourably predisposed in some one or more of the internal viscera. The statement of this author is defective, in not informing us of the medical treatment, beyond the use of general and local bleedings, and of blisters.

OBSERVATION 1<sup>ere</sup>.

[T. III. p. 416.]

Acute articular rheumatism. All at once, a tearing pain in the region of the heart; death taking place rapidly. Purulent exudation on the internal surface of the pericardium.

THE patient a baker, aged thirty-one years. Had experienced acute rheumatism for a fortnight in different articulations; and which, on his admission, occupied those of the neck, the left wrist, and the right knee and foot. All these parts



swollen and red ; frequently violent pain of the head, the tongue red, and rather dry ; the epigastrium tender on pressure. In the first twenty-four hours bled twice, each time to twelve ounces ; the blood had a thick, buffy coat. On the next morning no amendment ; a third bleeding ; same appearance of the blood. Knee and right foot ceased to be painful, but the left knee was swollen ; the neck and the right wrist less swollen ; not suffering when at rest, but the least movement exquisitely painful. A fourth bleeding to twelve ounces ; emollient ptisans ; poultices ; strict diet. The blood buffy. On the fourth day, notwithstanding the four bleedings, the neck, and the left wrist and knee, swollen and very painful ; the tongue had lost its redness ; twenty leeches to the knee. On the fifth, this knee only a little painful, but the right seized in turn ; the neck and left wrist in the same state as before (emollient ptisans, poultices, same diet). On the sixth, in the same state. A fifth bleeding to twelve ounces ; ten leeches to the right knee, and ten to the left wrist).

In the course of the day, a visible amendment ;



some power of moving the joints, and without much pain. The improvement only of short duration. At eight in the evening, the patient found all his joints nearly free from pain ; he was well. At ten, was seized all at once with a most severe pain in the left breast, which continued the whole night, and on the following morning he cried out with the rending pain of the breast. This was not increased by pressure, nor by coughing, nor by inspiration, nor by change of position ; consequently it had not the characters of pleurisy, nor those of a muscular pain. The joints in an indolent state. Besides a complete absence of cough, the breast sounded on percussion ; respiration clear, but strong ; beats of the heart very frequent, tumultuous, irregular in force, and intermittent. Pulse presenting the same intermissions, but very small, flying under the fingers, only to be felt for an instant. Countenance pale, shrunk, expressive of the utmost anxiety ; cold extremities. This frightful assemblage of symptoms bespoke an inflammation of the pericardium. The patient appeared so feeble that M. Lerminier did not think it desirable to open another vein. Thirty leeches were applied over



the præcordial region ; sinapisms to the limbs, with a view to bring back the rheumatic affection, which, by a sort of metastasis, appeared to have fallen on the coverings of the heart.

No amendment in the course of the day ; the respiration, which was tolerably free in the morning, became more and more constrained, and the patient died on the following night, twenty-nine hours after the seizure of the pain about the heart.

The examination of the body confirmed the justice of the diagnosis. The whole of the internal surface of the pericardium was covered over by a whitish exudation, soft, membranous, and presenting an areola-like aspect. Below this exudation, the pericardium appeared of a lively red ; there was not, properly speaking, a liquid effusion into its interior ; an ounce at the most of greenish serous fluid was extracted. Also, the substance of the heart, the internal surface of its cavities, the great vessels running into and from the heart, appeared perfectly healthy ; the pleura presented only some old cellular adhesions ; and the lung a congestion of bloody serum. The stomach was a little red in the line of its large cur-



vature ; nothing remarkable in the other organs of the abdomen, nor in the brain and its appendages.

M. Andral remarks, that the irritation of the central organ of circulation was the cause of all the symptoms, and of death ; that the irritation of pericarditis was known by the local symptoms, viz. the tumultuous and irregular beatings of the heart ; the great frequency, the irregularity, and the extreme smallness of the pulse.

In the next case of a similar nature, a different state of the pulse, and of the action of the heart, is shewn. The pain experienced was at the bottom of the sternum, becoming intense only by degrees, succeeding to the pains of the joints. The patient was a negro, a tailor, aged nineteen, of rather feeble constitution, but had usually enjoyed good health. In the right wrist and knee, there was slight swelling ; these parts were exquisitely painful on motion ; the left knee and ankles were also painful, but not swollen. The rheumatic attack began on the 19th of April. Blood was taken in free quantity (*quatre palettes*) on the 24th, when he was first visited. As medicine, a julep of infusion of



borage and wild poppy. On the 25th, much the same symptoms ; the blood exhibited a large clot, not of firm consistence, without buff. A second bleeding "de trois palettes." The blood, soon after being drawn, was covered with a thick buffy coat, and surrounded by a large quantity of greenish serum. The vein had been opened in the same manner as before. At night, twelve grains of Dover's powder, in two doses. Abundant sweating for a great part of the night.

On the 26th, the joints not more swollen, scarcely painful ; and, for the first time, complaint was made of wandering pains over the chest ; the breathing accelerated ; continuance of fever. A third bleeding. The blood had the same characters as at the second bleeding. Through the day, the pains of the chest continued, concentrated at the bottom of the sternum, and at the pit of the stomach.

On the 27th, all the symptoms were exasperated. The inspirations, short and hurried, were performed by the elevation of the ribs and the descent of the diaphragm at the same time. At the bottom of the sternum the pain increased by the least pressure. The pains in the limbs had wholly ceased. No



cough. The whole chest gave a proper sound on percussion ; the respiration clear, but strong ; the pulse very frequent, regular, and of remarkable hardness, while the beats of the heart, as heard by the stethoscope, were very feeble ; the ear applied immediately over the region of the heart, distinguished only a confused noise, which did not allow of a discrimination of the respective pulsations of the ventricles and auricles. The symptoms, and this absence of all signs of phlegmasia of the pleura or lungs, caused a suspicion of the existence of pericarditis. Forty leeches were applied over the region of the heart, and the epigastrium was soon after covered with a blister.

The patient was sensibly relieved in the course of the day ; but in the evening the symptoms returned, with a threatening of suffocation. Recourse was had to a copious bleeding, which gave immediate relief to the breathing. The same appearance of the blood.

On the morning of the 29th, the respiration again very difficult ; and the pulse very frequent and hard ; a kind of tumultuous noise, undefinable, could be heard in the region of the heart.



Percussion in this part gave a duller sound than on the preceding days. The bleedings having invariably produced relief, recourse was again had to this treatment. Bleeding "*à trois palettes\**," twelve leeches to the region of the heart. The blister at the pit of the stomach was healed ; and two blisters were applied to the legs.

On the 30th, the respiration, although always accelerated, was less constrained than on the preceding evening. Free from pain ; the countenance infinitely more calm and more natural ; the pulse preserved its power ; the blood had the same aspect as before (15 leeches to the region of the heart).

In the same state through the day. At eight in the evening, calm ; the physiognomy not altered ; the respiration tolerably free ; no difficulty of speech ; the patient was able to sit up in bed without much difficulty, and did not suffer. He died suddenly, at eleven at night.

The body examined nine hours afterwards.

In the brain and its membranes, no morbid

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\* Palette, a term for a basin used for the receiving of blood, but not of fixed measure.



appearance. In each of the lateral ventricles, two or three tea spoonfuls of limpid serum.

The lungs healthy, pale, not obstructed ; the cavity of the pericardium contained rather more than half a 'litre'\* of turbid serum ; the portion of serous membrane lining the heart, and that spread over the fibrous layer, were completely covered by a false membrane ; which, standing up with numerous rough points, presented an appearance very similar to that of the second stomach of ruminating animals.

This kind of false membrane, of nipped appearance, has already been pointed out by Corvisart and by M. Laennec, as a particular form of false membrane, which these great observers had only met with in the pericardium. Along the furrow, which marks the point of union between the two ventricles, there existed some albuminous concretions, membrane-like, such as are usually found upon inflamed serous membranes. In fact, in two or three points, there were spread out, from one surface of the serous membrane to the

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\* Litre, is a measure equal to two pints and a tenth of Winchester wine measure.



other, long whitish bridles, very soft, and torn by the least handling. The tissue of the heart very pale ; its cavities contained some fibrous clots, in part deprived of coloring matter, and which were also contained in the vessels.

The abdominal viscera were healthy ; the liver remarkably soft.

The joints, which were examined, did not present any trace of inflammation.

M. Andral comments on this unfortunate but interesting case ; and, pointing out the different affections of the pulse and of the heart, from those of the last case, and from what is usually met with in similar lesions of the pericardium, observes, that the heart is liable to different kinds of irritation, and the nervous system to be influenced in various modes.

We are here again struck with the omission of all important medical treatment by internal means. If we suppose that no medicines were administered, except the julep, and the two doses of Dover's powder, mentioned, we must surely pronounce that the resources of the medical art were very sparingly employed.



## OBSERVATION ve.

[T. IV. p. 535.]

Peritonitis, occurring at the time of an articular rheumatism disappearing. Effusion of a red colour into the peritoneal cavity.

A MAN, aged fifty-seven, seized with an old incontinence of urine, and having had a flux for three months, at intervals, was ill with acute rheumatism of the joints, when he entered La Charité, at the beginning of the month of November. Up to the 16th, different joints became swollen and painful by turns. He had been bled several times. On the 17th, the two wrists and the left shoulder were the seat of rheumatism ; the fever continued ; but hitherto no symptom had announced the affection of other organs. In the course of the day, the joints just mentioned all at once ceased to be painful and swollen, and no other became affected ; but, for the first time, he became sensible of sharp pains in the abdomen ; they increased the whole night, and on the next morning, the 18th, were so intense that the patient cried out. Pressure did not increase the pain, but did not lessen it. The countenance, without color, expressed the greatest anxiety ; he complained of feeling cold, and, in fact, the temperature of the skin was but a very



little elevated ; the pulse, very frequent, kept its hardness. This new assemblage of symptoms resembled what the old physicians called *rheumatic metastasis*.

The principal indication to be fulfilled appeared to be, to bring back the irritation to its primitive seat. Sinapisms were applied by turns to different joints, at the same time that leeches, in great number, were placed on the abdomen ; afterwards the patient was put into a warm bath, stimulating frictions were employed on the limbs, and in the evening two blisters were applied to the thighs. But these different means proved useless ; and, on the next morning, the 19th, the situation of the patient became much worse. Over the whole of the abdomen, the pain was extremely intense, increased by pressure, and even by the slightest touch, which was not the case on the preceding evening. Besides, the abdomen had become remarkably enlarged, and there was an evident fluctuation. Some nausea without vomiting. The pulse, always very frequent, had lost its hardness, and was sometimes intermittent.

The patient died in the night of the 19th to the



20th, before the end of the third day from the invasion of the abdominal pains.

*Examination of the body.* An incision being made into the abdomen, there instantly escaped a flow of liquid of a deep red colour, in which were swimming some whitish flakes. The whole bundle of intestines had a red colour, and at the surface of many of the folds, there were deposited some concretions of membrane-form, equally coloured. The liquid which filled the peritoneum entirely resembled venous blood; besides which, there was no appearance of clots, nor of any large open vessel. On the interior of the digestive tube no other lesion was found, except a very marked development of the follicles at the end of the small intestine, of the cæcum, and at the commencement of the colon; these follicles were limited by a black circle. Further, at the thick part of the walls of the ascending colon, there was a serous cyst of the size of a nut, developed between the fleshy coat and the mucous membrane, which was raised by the cyst.)

M. Andral proceeds to describe the characters of a large oviform bag, situated over the bladder, extending lengthways behind the small intestines,



and adhering slightly to the third portion of the duodenum. It had somewhat the appearance of a second bladder.

He remarks on this case, that it is of little consequence whether we call this exchange of disease metastasis, or otherwise, provided we keep in recollection, that the sudden disappearance of the rheumatism often joined with the development of an internal phlegmasia, which, according to the predisposition of the individual, seizes one or other organ, but, above all, the serous membranes.\* He makes various other comments, and concludes with observing, that the hæmorrhage-like effusion was connected with peritoneal inflammation; and he considered it to be the most acute case of peritonitis which he had ever seen, without perforation of intestine. He thought it extraordinary that, with the remarkably quick progress of fatal symptoms, there were no discoverable morbid appearances in any of the important vital organs (the heart, the lungs, the nervous centres).

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\* I do not agree with M. Andral, that the serous membranes are usually attacked by rheumatic metastasis, as I have observed at page 19.



In reflecting on the treatment of this important case, as here described, I am struck with the apparent error, as I conceive, of omitting the free use of the lancet, immediately on the invasion of the symptoms of peritonitis. It is stated, that at the commencement of the acute rheumatic symptoms, the patient was bled several times ; but the fit measure of remedies can only be estimated by the force and amount of the disease ; and when the acute symptoms of peritonitis were prevailing in the highest degree, with a hard pulse, the decided use of the lancet was, as it appears to me, peremptorily required, notwithstanding the early bleedings. Also the powerful aid of internal medicines would be desirable in this as in the former cases ; for, although the reduction of the circulation, by taking away blood, is the very first principle of treatment in active inflammatory disease, yet, most assuredly, we ought to respect duly the auxiliary power of medicine.

I proceed to offer some further cases from my own practice\*.

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\* I ought perhaps to apologize for having occupied so many pages with matter extracted from another work ; but I felt that I



## CASE XX.

Acute Rheumatism. Two attacks: Ophthalmia in each. The advantage of adding the use of calomel and opium, to that of purgatives and colchicum.

A YOUNG man, aged twenty-three, not of strong constitution, had suffered from an attack of acute rheumatism a year previously to the illness which I am about to relate. On that occasion, he was also affected with slight inflammation of the eyes, which was coincident with the complaint of the limbs, and yielded readily to the ordinary means of treatment.

The series of disordered actions in the present attack were first, a gonorrhœa virulenta; in a few days after, membranous inflammation of each eye, attended with much general redness, acute pain, intolerance of light, and considerable mucous discharge. After an interval of three days, the bursal

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could not, with any justice to the author, condense the cases more than I have done, nor fulfil my object of exhibiting, as I think I may express it, some of the French modes of practice in inflammatory disease.



textures of the left knee, and the whole of the left ankle joint, were seized with rheumatic inflammation. In the latter situation, there was considerable redness of surface, and scarcely any swelling. Any attempt to move was extremely painful.

He had successfully employed an injection of zinc for the gonorrhœal discharge. Poppy fomentation had been used regularly and frequently, for the relief of the eyes. He had taken purgative medicine every morning, and two doses of *vinum colchici* in the course of each day. At this period I first saw the patient. The tongue was much coated, the pulse was frequent, and the skin hot. I directed the draught, page 92, with the tartarised antimony, to be taken twice or thrice in the twenty-four hours, according to the action of the bowels, and each night the following pills: *R. Hydr submur. pulv. Jacob. ver. pulv. opii crud. āā. gr. ii. conf. ros. canin. q. s. M. ut fiant pilulæ ii.* The poppy fomentation to the eyes was continued. On the following morning, I found the patient relieved in every respect. The alvine and urinary secretions were



very unnatural, and the absence of healthy bile was remarkable.

I had not the opportunity of seeing this patient again, as he lived at a considerable distance ; but the following particulars were communicated to me. Notwithstanding the treatment above described, the rheumatism extended itself, and was more painful. The toes of each foot became red and swollen. The ophthalmic inflammation also increased. In two days, the patient experienced sudden and severe pain in the right shoulder and arm ; when, as suddenly, the eyes became relieved. On the next day, the nature of this alternation was exactly reversed.

Eventually, however, he recovered very favorably, under this mode of treatment. The use of the calomel was continued till the gum was slightly affected.

I think it probable, that in this case the gonorrhœal discharge would have ceased spontaneously on the supervention of the ophthalmia. The patient was quite certain that he had not by accident conveyed any of the secretion from the



urethra to the eyes. From the evident state of the error of the biliary system, it seems reasonable to conclude that it was the foundation of the ophthalmia and of the rheumatic disease. Neither colchicum alone nor ordinary purgative medicine had afforded permanent relief. The additional remedies of calomel, opium, and antimony, appeared essentially to lead to the cure.

I have been favored with the particulars of the following case, by Sir Astley Cooper, and Dr. Young of Lambeth.

#### CASE XXI.

Inflammation of a doubtful nature at the knee joint, terminating in suppuration. Such was the state of the constitution of the patient, that the irritation which arose proved fatal.

A GENTLEMAN, sixty years of age, stout and inclined to corpulency, of florid complexion, indulging, but not committing excess in his habits, of irritable constitution, neither subject to gout nor rheumatism, had suffered, during a period of two years, from stone in the bladder. Such was the morbid sensibility of the parts, that the introduction of a bougie usually caused severe pain, lasting twenty minutes ; and he often experienced great



difficulty and intense suffering in passing his urine. It was decided that the operation of lithotomy should be performed ; but the favorable opportunity did not present itself, so great was the dread of the patient that it would certainly prove fatal.

On Friday, in the month of June, it was arranged that the operation should be performed in a few days. In the evening of Sunday, his mind being extremely anxious with the idea of the operation, he was seized with rigors, head-ache, pain of the chest, and some cough. The pulse was 96, and rather full, the tongue white, the skin hot and dry. He also complained of slight pain at the inner ankle of the left foot, but there was no external appearance of complaint.

The next night was passed in a restless manner ; the pain had quitted the ankle, and was fixed in the inner side of the left knee. It was excruciating, and the part was extremely sensible to the touch. The surface was shining, but there was not much tension of the integuments. He had strong symptoms of general fever. The urine was passed with less difficulty than for many months.



On the Wednesday, all the symptoms continued.

On Thursday, the pain of the knee was become intense. There was slight redness of the skin. The pulse was 120, and the general fever was increased. The abdomen was rather tender on pressure.

On Friday, the symptoms were increased. There was some subsultus tendinum, and the integuments at the knee appeared red. Frequent vomiting took place; the bowels acted involuntarily. The sensorium was so much affected, that nothing but a paroxysm of pain brought the patient to a state of sense. He lingered with much suffering till the following Monday, when, quite insensible, he became exhausted and died.

Upon examination of the body, the morbid appearances were found only in the bladder and at the knee. The coats of this viscus were thickened, its inner surface was highly vascular, and of a deep colour; the calculus, which was of the size of an almond shell, and studded with a considerable number of small crystals, lay imbedded in mucus near the neck of the bladder.

At the knee, a small abscess was discovered



just below the inner condyle, occupying the bursæ of the tendons ; and a small quantity of pus, mixed with a glairy fluid, escaped. On passing a probe into the sac, it might have been carried into the joint. The inner condyle could be distinctly touched.

The lining of this small abscess was evidently in a state of inflammation. The cartilages covering the inner condyle, about its centre, had become ulcerated to the extent of a sixpenny piece. The synovial membrane was inflamed, but had not suppurated.

I have not narrated the particulars of the treatment, which was as active and appropriate as the best skill could suggest.

Are we to consider that the local inflammation in this case was of the rheumatic, or of the common kind ? I am disposed to consider that it was not rheumatic.

The particular state of the nervous system of the patient, connected with his exceeding dread of the operation, appears to account for the fatal constitutional irritation which was produced.



## CASE XXII.

Deep-seated inflammation of one eye, in a patient much subject to rheumatism. Active treatment by local and general bleeding, by purgatives, and by mercury, perfectly successful.

A GENTLEMAN, aged forty-nine, of rheumatic diathesis, and also subject to dyspepsia, after exposure to a cold wind, was attacked with deep-seated inflammation of one eye, the choroid and sclerotic tunics being the textures affected. In a short time, there was an evident opacity of the crystalline lens, the cornea not losing its transparency. The symptoms quickly assumed the highest degree of severity. The pain was most excruciating.

The treatment consisted in taking sixteen ounces of blood from the temple, twice, by means of cupping; and, in a few days afterwards, by bleeding from the arm to syncope, and the application of twenty leeches to the temple; in the use of calomel with purgatives; in the application of a fomentation, consisting of extract of belladonna and extract of poppy, in the proportion of a drachm of each to half a pint of water. As soon



as the most acute symptoms were removed by these means, a blister was applied to the forehead, temple, and side of the cheek ; and alterative doses of pilul. hydr. and calomel, were given each night, till a slight ptyalism was produced. The recovery of the eye was complete.

I had seen this gentleman occasionally under attacks of rheumatism ; but, in the ophthalmic disease which I have briefly related, he received the skilful attentions of Mr. Travers. The forms of rheumatism to which he had been subject were lumbago ; pleurodyne ; periosteal inflammation of the fibula ; bursal enlargement of the knee ; thecal inflammation of the tendons of the left wrist ; thecal and ligamentous inflammation of the left ankle, and of the right hand.

In the most frequent examples of ophthalmia which occur in immediate connexion with rheumatism, according to my observation, the membrana conjunctiva is inflamed, and mucous discharge takes place. The eye has a blood-shot appearance. There is usually a strong sense of heat ; though, in most circumstances, the pain is not very severe, but of an aching and smarting kind, and not constant.



## CASE XXIII.

Acute Lumbago. The cure effected by the use of opium, antimony, calomel, and purgatives.

A GENTLEMAN, aged thirty-one, strong in constitution, and of the sanguineous temperament, who, at an early period of his life, had received a strain of the back, and had since been subject to lumbago occasionally, was seized, on Saturday, August 28th, after slight exposure to cold, with acute pain at the extremity of the loins, which continued with only slight intermission till Tuesday, the 31st, the day on which I was first consulted. He described, that, soon after getting into a fixed position, he found relief; and most, when lying extended on his back in bed. But to attempt a change of position from that state of fix-  
ture was a most painful exertion. The effort of moving one leg or one arm produced great pain. He described the pain of the loins as if the internal parts were being squeezed with pincers. He possessed great fortitude, and had exerted himself to quit his bed in the morning, although with extreme difficulty. When changing the sitting for the standing posture, he experienced such acute



pain, that he feared he should fall. "The pain was, as if a knife was thrust into the loins," which extended also to the left knee. The left half of the loins was most affected. The pulse was 96. The tongue was rather coated. His appetite was natural. The bowels were confined. I prescribed pills, as at page 201, and a draught with senna and salts ; and afterwards, pulv. ipecac. compos. gr. viii. every six hours ; the loins to be rubbed with a liniment, consisting of equal parts of tinctura lyttæ, tinctura opii, linimentum saponis compositum, and liquor ammoniæ. The diet to be fluid and unstimulating. He felt himself so much better after the very free action of the bowels which was produced, that he thought he should quickly recover.

Wednesday, the pain returned severely. He could bear any degree of pressure made on the loins, but experienced such a strong sense of burning, that, by his own desire, he lost fourteen ounces of blood from the part by cupping ; yet without obtaining the smallest relief. I directed pulv. opii crud. et pulv. Jacob. āā gr. ii. sextâ quaquè horâ ; and the following draught at such intervals



as might be found necessary for the relief of pain :

R Potassæ carbon. gr. xxvii. succ. citric. recent.  
ʒss. mist. camph. ʒi. syr. tolutan. ʒi. gutt. nigr.  
x. M. fiat haustus.

Thursday, I found him much relieved ; he had passed a tolerable night, and was free from pain when he avoided movement. The pulse, appetite, &c. quite natural. He had taken the pills every six, and the draught every four hours.

Towards evening, from a determined spirit of exertion, and contrary to instruction, he quitted the bed, and, from the efforts made, brought on a severe relapse of pain. The succeeding night was almost sleepless, and even the regular doses of pill and draught did not effectually mitigate the sufferings.

Friday, the pulse was 88, the tongue furred, the bowels inactive ; the least movement of the arms or legs caused severe pain of the loins ; and he also complained of acute shootings in the course of the sciatic, and in the branches of the femoral nerve. The loins were fomented with a decoction of poppies, mixed with some alcohol. The purgative pills were repeated, followed by



three doses of senna and salts ; and notwithstanding the painful inconvenience attendant on the effects of the medicine, he derived from it eventual and great relief.

This plan of treatment was regularly pursued, the bowels being freely acted upon occasionally ; and, in the intervals, the opiate was given with the freedom necessary to subdue pain. The limbs were affected with rheumatic soreness for a short time ; but at the end of a fortnight the patient felt himself recovered.

It is worthy of observation, that, even in this case, although in the first instance the natural functions did not appear to be disordered, the mercurial purgative was remarkably useful, and, by the consequent relief, more than compensated for the immediate difficulty of changing the position. The large doses of opium did not cause any unpleasant sensation of the head, so completely did pain counteract its influence in that particular.

I think it probable that the vapor bath would have proved useful in this case, and have led to an earlier relief.



## CASE I.

Sub-acute Rheumatism, terminating in the chronic species. Various remedies employed. The shower bath, used latterly, remarkably useful.

A GENTLEMAN, aged seventy-seven, robust, habitually subject to dyspepsia, but in general health and appearance firm beyond his age, was seized with lumbago three years before the present attack, from slight exposure to cold. Since that period, he has been more or less afflicted with universal rheumatism, either in the sub-acute or chronic form. I shall confine my narrative to a few leading particulars.

He was attacked with severe pain in the sciatic nerve and obturator branches, two years ago, and subsequently experienced rheumatism in the shoulders, wrists and hands, knees and ankles. The textures affected were synovial, tendinous, and ligamentous, in different situations; and great pain was experienced at the insertion of the deltoid muscle, in almost every motion of the arm. The muscles of the neck were sometimes much affected. The patient was, as is usual with rheumatic per-



sons, sensitive to changes of weather ; and sometimes suffered considerable pain in all the affected parts.

The inflammatory diathesis was at different times evidently marked ; and, notwithstanding his years, it was judged right to take away blood twice from the arm, which proved useful. The blood had a considerable buffy coat. Various were the remedies employed ; and of these, I may enumerate the following :—Calomel ; pilula hydrargyri ; antimony ; colchicum ; purgatives, saline, resinous, and stomachic ; Dover's powder ; opium otherwise combined ; sulphur ; white mustard seed ; carbonate of iron, sulphate of quinine ; arsenic ; alkalies, fixed and volatile ; but with the most perseverance, the subcarbonate of soda. The local treatment was also varied, and full trial was given to evaporating lotions, liniments, plasters, sedatives, and stimulating blisters, and leeches. With the same diligence, almost every kind of bath was employed ; for I should observe, that the patient was himself a medical man, and was resolved to omit no exertions to obtain a cure.



The diet was regulated, and, for a time, animal food and all fermented liquors were avoided.

I shall state very generally the effect of some of the remedies above mentioned.

Purgatives, used to a moderate extent, were useful. Wine of colchicum, in a dose of 25 drops three times a day, appeared to debilitate without relieving the rheumatism, and then the doses being increased to 50 drops, vomiting and a strong action of the bowels followed ; from which, for a day or two, the patient felt as if he had received a cure ; but the amendment was of short duration, and all the pains returned. Sulphate of quinine was decidedly beneficial to the constitution, and appeared to have some useful influence on the rheumatism. More especially, it appeared remedial in relieving an irregularity in the action of the heart, which was manifest whenever he found the stomach disordered, or felt nervous. At another period, the subcarbonate of soda was very useful. Leeches applied over the synovial, tendinous, and ligamentous textures, on two occasions, gave rise to erysipelatous inflammation, without affording any apparent benefit in compen-



sation for this inconvenience\*. I believe that the different local methods tended to counteract the morbid changes of the textures; but in spite of every care, induration, rigidity, and contraction took place, in a considerable degree. The warm salt bath caused a general sense of weakness, and rather an increase than relief of rheumatic feeling. The vapor bath for two days appeared to promise a cure, but afterwards did not seem useful. The Buxton bath was fully tried without any benefit. Equally unprofitable was a course of the hot air bath, with a slight admixture of sulphurous gas. Real benefit was at last derived from the use of the cold shower bath, which was continued with great perseverance.

This gentleman has acquired an improved state of health, but continues to be incommoded by rheumatism, although in a much less degree than

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\* Mr. Higginbottom recommends the application of lunar caustic to the part affected with irritation from a leech-bite, so as to produce a small eschar. I have reason to know that this treatment proves very successful. For Mr. Higginbottom's account, see Essay on the Lunar Caustic, page 62.



formerly. The rheumatic diathesis appears, in this case, to be too firmly fixed to be entirely removed, when we consider also the period of life to which the patient is advanced.

This case is instructive, as shewing the comparative effects of different means of treatment, and goes far in recommendation of the shower bath as an anti-rheumatic remedy.

#### CASE II.

**Sub-acute Rheumatism.**—A series of diseased actions. The predisposition in this case founded in biliary and intestinal derangement—cold operating as the exciting cause of the symptoms. A cure gradually obtained by a combined plan of treatment.

A GENTLEMAN, of slight make, and apparently of delicate constitution, aged forty-five, first incurred an attack of rheumatism at the beginning of June. He had, for some years past, been subject to dyspepsia and irregular action of the liver. The present illness commenced from exposure, for seven hours, in an open boat at sea, after sleeping, on the previous night, over a hot oven. The eyes were first affected. He related that they were blood-shot, extremely painful, and felt as if



filled with hot ashes. Leeches and poppy fomentation were the remedies used, and with speedy benefit. Immediately after, however, both knees were attacked with pain and swelling, from which he suffered so severely, that he scarcely enjoyed any sleep for seventeen nights.

By the middle of July, he was sufficiently recovered to make a short tour, but imprudently travelled in an open carriage, and was caught in a storm of rain. He remained in damp clothes for several hours. In the night he experienced a severe complaint of the bowels, having frequent griping pains, and an almost constant discharge of mucus, mixed with blood. These sufferings continued more or less during a fortnight; and, then the disorder of the bowels subsiding, the knees were again attacked with rheumatic pain; and, shortly afterwards, the fingers and wrists of each hand, and also the loins. As soon as the urgency of these symptoms was removed, he went to Buxton, and, after using two warm baths, had recourse to the natural bath. This disagreed with his feelings, and its unfavorable operation was soon followed by a renewal of severe rheumatic pain in



the different parts just mentioned. In this situation I first saw the patient.

I found him extremely ill. The pulse was 112, and weak. The countenance was full of anxiety; the complexion yellow and greenish, in patches; the tunica albuginea, yellow; the tongue much coated with creamy and yellow fur; the stomach was affected with nausea and occasional sickness; he was become very thin; he was weak, and often prone to faint; at night, he had profuse perspirations; and seldom enjoyed sleep. He suffered, at night, from cramp and jactitation. The knees were much enlarged with an elastic kind of swelling, and the veins all around the joint were much distended. The loins were painful, and the fingers were red and swollen. The natural functions were most unhealthy and irregular. The urine was loaded with pinkish sediment. The stomach was affected with acid eructations; the bowels with flatulent distension, with uncertain action, and the discharges were clay-colored, or occasionally muddy, or greenish, with unnatural fœtor.

He was anxious to be strengthened; and, from his exceeding sense of debility and depression, had



an apprehension of taking aperient medicines. To give tonics immediately, in these circumstances, would be, as it were, to build a house on a foundation of sand.

I prescribed to be taken, at bed time, and to be repeated each night, or each other night, according to circumstances, hydr. submur. gr. ii. extr. colocynth compos. extr. rhei. āā gr. iii. ; and a camphorated saline mixture, with liquor opii sedativus in sufficient doses to remove pain ; in the morning early, and again at noon, the draught, page 92, without tartar emetic. The diet to consist of well-made broths, nutritious puddings, arrow root, tapioca, and diluted milk. Leeches were applied to the knees, and an evaporating lotion was constantly used.

In three days a considerable amendment was effected. The medicines had acted with freedom ; and yet the patient, to his great surprise, felt less depression than before. But he was really weak, and it appeared desirable to blend some restorative mode of treatment with the use of alteratives and aperients. I directed, therefore, the aperient draught to be used in the morning early, and at



noon gave the following tonic: *R* Sulph. quinin. gr. ii. infus. rosæ. 3x. tinct. cinchon. compos. 3i. syrupi. aurant. 3i. acidi. sulph. aromat. gtt. v. *M. fiat haustus.* The calomel was omitted. The narcotic mixture had agreed perfectly, and was now less required. To one knee the leeches were repeated. The warm bath, at the temperature of 95°, was used for ten minutes, two days in succession, and was omitted on the third. After a little interval, these pills were given every other night: *R* Pilul. hydr. submur. comp. extr. rhei. āā gr. v. *M. et fiant pilulæ ii.* On the evening of omitting these pills, he took a second draught with quinine, and the early morning draught was now exchanged for the following: *R* Sulph. magnes. 3i. ad 3iss. infus. caryoph. 3vi. aqu. menth. piper. 3vi. tinct. humuli. 3i. *M. fiat haustus.* This treatment was pursued for twelve days; and then, as he was anxious again to have recourse to the natural bath, the alterative pills were omitted. The secretions were so materially improved, as to allow of this change of plan.

The diet was made restorative, but light, and strictly regulated.



Now, instead of the chilliness which he before suffered after bathing, he enjoyed a comfortable glow ; such was the favorable re-action. Shortly before going into the bath, he took a small wine glass of spiced Madeira, made warm, with a rusk ; for the powers of the nervous system had been so much reduced by long suffering, that the occasional use of cordials was indispensable.

The loins were pumped upon with great advantage ; and he also received the daily assistance of the shampooer.

Recovery was very gradual, but the progress was sure ; and this gentleman finally obtained a state of health.

This case, like the last, demonstrates the close association of the rheumatic symptoms with the morbid state of the digestive organs ; but the rheumatism itself was not to be overlooked. The acetum colchici, the anodyne at night, and the local treatment, contributed much towards the relief and cure. The natural bath also, when employed latterly, under proper circumstances, lent its valuable aid.

I should add, that, after quitting Buxton, the



use of the alterative pills was resumed twice a week, the aperient draught, with clove, &c. on the intervening mornings, and, once every day, the sarsaparilla mixture, page 245.

CASE III.

Sub-acute Rheumatism.—General derangement; together with disturbed balance of the circulation; the biliary system in fault. A blended plan of treatment successful.

A MARRIED LADY, aged forty-four, of the nervous temperament, and of the bilious diathesis, was attacked with rheumatic inflammation of the right wrist and thumb, on the day after being exposed to a storm of wind and rain in walking. She had carried an umbrella, and attributed the attack to “having the glove soaked with wet.” At this time, she was also suffering from chronic ophthalmia.

She related the following particulars of her constitution. In 1820, she received a strain of the back, and, taking cold soon after, experienced a severe attack of lumbago. In the spring of 1821, residing in a damp situation, she contracted a



310 CASE III OF SUB-ACUTE RHEUMATISM.

a great deal of general rheumatism, the hip, knee, and fingers being severely affected. In the autumn, she was attacked by tooth-ache in the severest manner (the tooth not being decayed), and, in a day or two after, by an inflammation of the right eye, and also a pain in the right side. Ten leeches were applied around the eye, poppy fomentation was used freely, and mercurial purgatives were taken frequently. The other eye was next affected, the inflammation still remaining in the right. Leeches and blisters were used repeatedly. The case must have been urgent, as scarcely any sleep was procured for six nights. From that time, the eyes had continued weak, and incapable of bearing a strong light, or the heat of a strong fire.

At my first visit, I found the tunica conjunctiva of each eye much inflamed, with a considerable discharge of mucus, and the tears were hot. There was a sense of heat, and of sand being under the lids, but not any active pain. The face was much flushed. The tendons of the wrist were distended, and the bursa at the first phalanx of the thumb was very full. No disco-



loration of the skin. The pulse was quick, the tongue furred, and the countenance was exceedingly flushed.

At first sight, there was an apparent indication for taking away blood, either by cupping or bleeding from the arm; but this lady assured me, that, although looking remarkably florid, she could not bear the loss of blood. She had once lost twelve ounces of blood from the arm, and did not recover her strength for half a year. It was indeed evident, upon further investigation, that the balance of circulation was much disturbed. The catamenia had been for some time irregular. The head was hot; the lower extremities were cold. I have stated that the pulse was frequent, but it was easily compressible: in one wrist it was hard, in the other soft; but the hardness was evidently owing to the peculiar state of the coats of the radial artery, a cause of difference between the pulses at the two wrists which I have often noticed; and it seems to me of consequence, on most occasions of a first visit to a patient, to examine the pulse at each wrist, as, in addition to an occasional difference in the texture of the tunics, the comparative



depth of the artery from the surface is an anatomical circumstance which often deserves notice, when we are making our estimate of the nature of the pulse. Also the constitutional peculiarities of the pulse are important. Some persons have their pulse of health not exceeding 44, and others not below ninety. Other individuals have a constant irregularity of pulse when in health, but lose this when the heart is excited to quick action by disease. It follows, therefore that, on first becoming acquainted with a patient, our conclusions respecting the pulse should not be hastily formed.

To return from this digression. I found, by the state of the secretions, strong indications of biliary error, and I prescribed accordingly ; directing, at bed time each of the three first nights, hydr. submur. gr. iss. extr. colocynth. c. gr. iv. and the draught page 92, with antimon. tart.  $\frac{1}{4}$  gr. in the morning early, to be repeated at noon, if required. She was furnished with the following pills as a remedy against pain and restlessness ; the latter symptom usually proving very distressing. Opium much disagreed. R Pulv. ipecac.



comp. gr. xii. lactuar. ver. extract papav. āā gr. xviii. M. et divide in pilulas xii. quarum capt. ii. nocte p. r. n. She was directed to sponge the scalp, when hot, with the lotion, page 194; and to apply a collyrium, with a solution of acetate of zinc, to the eyes, frequently; and to use a pediluvium with hot water at night. Sponging the rheumatic parts with the lotion, page 120, tepid, and a light cooling diet, completed the plan of treatment.

On the following day, the rheumatism had extended to the bursal structure of the left knee, with swelling, and to the ligaments of the left ankle, without swelling, but not severely; and this was truly a case of sub-acute rheumatism, for there was neither particular thirst, nor loss of appetite, nor sensible fever.

After a few days, the lady was materially better; but as she complained of feeling weak and nervous, with a tendency to faint perspirations, I changed the calomel pill for pilul. hydr. gr. iii. alternâ quâque nocte, omitted the antimon. tart. in the morning draught, and gave a dose of quinine in the middle of the day. The treatment was perfectly successful.



## CASE IV.

Sub-acute Rheumatism.—The rheumatic pains so much associated with a faulty state of the digestive organs, and of the liver especially, that the cure essentially consisted in rectifying such error.

A GENTLEMAN, aged forty-nine, tall and robust, inclined to abdominal corpulency, of bilious complexion, and having some years ago had an attack of jaundice, took cold from walking in continued rain, and resting in wet clothes and *soaked* shoes. In the evening he felt chilly and generally unwell. He experienced a sharp pain in the sciatic nerve and general soreness in the limb. On the following day, the ankles and knees were affected with aching pain, with some puffiness in the knees, but scarcely any swelling at the ankles, and not any discoloration.

In a week after the attack, I saw this gentleman. I found him complaining of sharp muscular pains all over the chest; and an intense continued aching pain between the scapulæ, and especially at the point of the right. The coat of the eye was yellowish, and also the complexion;



the tongue was coated with a dark yellow fur ; the bowels were irregular, and the discharges, for the most part, were clay-colored, or like a mixture of earth and water, with strong foetor ; the urine, that particularly passed late in the evening, deposited lateritious sediment copiously ; the pulse was 90, and irritable ; the mind was agitated by the slightest causes. He had taken *vinum seminum colchici*, with *magnesia*, for the three first days ; and, at first, with relief to the pains ; but his stomach became irritated, and this medicine was discontinued.

I considered that this case was to be treated entirely with reference to the faulty state of the digestive organs, and of the liver especially ; and that any other method must be secondary and auxiliary. The draught, page 92, without tartar emetic, succeeded perfectly as an assistant purgative to pills of calomel and *extr. colocynth c.* which were given daily for ten days. The ankles and knees were sponged frequently with an evaporating lotion, rendered tepid. The mouth became rather sore, and mercurial medicine was omitted for a week. An alterative course of *pilul.*



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hydr. with colocynth each other night, and with sarsaparilla in the day, was then entered upon. The diet was strictly regulated. Every symptom of indisposition was removed in the course of six or seven weeks.

#### CASE V.

Sub-acute Rheumatism.—Successfully treated by opium and antimony, and a due attention to the biliary system.

A GENTLEMAN of middle age, possessing the highest degree of nervous temperament, was attacked by universal rheumatism, almost unattended with fever. The temporal muscles, the muscles of the neck, the sciatic nerves, and the fingers, were the parts affected with most pain, which was very severe. He also complained of such pain in the ball of each eye, that the action of the muscles of each eye was rendered peculiarly difficult. In different parts, there was evident ligamentous thickening, and synovial distension; but no discoloration of the integuments. The pulse was rather quickened; the tongue coated; the complexion yellowish; the urine of a deep colour; the alvine



discharges variable, being either light or natural, or of inky darkness, on different days. The appetite was scarcely at all impaired. He had been subject to rheumatism, and made trial of colchicum, which disagreed materially, irritating the mucous membrane of the stomach and bowels.

I prescribed a combination of hydr. submur. pulv. Jacob. extract. colocynth. c. extract. papav. to be taken at bed time, to be followed by an aperient in the morning; and, every six or eight hours, a draught, containing antimon, tart. and liquor opii sedativ. in medium doses. The painful symptoms were removed in ten days; and then he took, with advantage, pilul. hydr. gr. ii. every night, and sarsaparilla in the day.

I relate this case, chiefly to point out the importance of informing our judgment respecting the nature of the biliary secretion.

We should not trust to casual or occasional observation; and, in chronic forms of disease, it is quite common to witness an occasional healthy evidence of the action of the liver, notwithstanding its habitual functions may be exceedingly in fault. The practical inference is obvious.



## CASE VI.

Sub-acute Rheumatism.—Notwithstanding the absence of pyrexia, general bleeding and antiphlogistic treatment found necessary to reduce the system.

A GENTLEMAN, aged fifty, robust, and of the sanguineous temperament, had exposed himself to cold and damp, and contracted severe rheumatic pains in the shoulders and loins. He had recourse to vinum colchici, and purgative draughts with senna and salts, and considered himself to be cured at the end of a week.

Again, in a few days after, he took cold from standing on the damp ground a considerable time while surveying alterations in a building. He experienced a renewal of pain in the shoulders and loins, and also new pains in the collar bones, in the whole of the right hip, and in the sciatic nerve on that side. The great trochanter was extremely tender on being touched, and the collar bones were quite sore. The pain in most of the affected parts was of the gnawing kind; but, at the hip, was attended with occasional throbbing,



and also piercing sensations, "as if some one were forcing a sharp instrument into the joint." The patient was entirely disabled, and confined to his bed. In the course of two or three days, a pain of the most exquisite kind seized the branches of nerve in the ham, the tendons at that part not being affected. During all these symptoms, the patient was not sensible of fever. The appetite was not disturbed; and he said that the attack came upon him at a time when he felt in full health. Previously to my seeing him, he had made trial again of his former remedies, but without success; and, indeed, found that the colchicum disagreed with his stomach.

I found the pulse full, but not exceeding 80 in frequency, the urine high coloured, and the tongue rather coated with a dark fur. It appeared to me important to reduce the plethora of the habit, by venesection, as a preliminary step. Within three days, twenty-four ounces of blood were extracted, and with evident advantage. The blood was not cupped nor buffy, but the crassamentum was firm. He took the draught, page 92, with a  $\frac{1}{4}$  of a grain of antimon. tart. twice in the day, in conjunction



with a pill of scammony and colocynth occasionally ; at night, pills with calomel, opium, and antimony ; having recourse, if necessary, during the night, to the composing mixture, page 106. The severe pain of the nerves at the ham was quickly relieved by a mixture of a drachm of extract of belladonna with two ounces of diluted spirit, applied by means of a linen compress.

This plan of treatment succeeded perfectly, and at the end of a fortnight all the symptoms were removed.

In a case of this description, it seems requisite to take a very careful pathological view of the state of the system ; for, although there was not absolute pyrexia, the general circulation was redundant, and the propriety of general bleeding, with the additional influence of antimony, calomel, and saline aperients, was manifested by the favorable result. A reduction of diet was no less useful in contributing to the necessary change to be effected in the balance of the system. Notwithstanding the disagreement of the vinum colchici with the stomach, on the second occasion of this preparation used, the acetum colchici did not cause



the least inconvenience. The local action of the belladonna on the branches of nerves in the ham, very much diminished the occasion for the use of the internal narcotic. I have mentioned that the fur of the tongue was dark, and that I considered this to be one indication that the patient was not of the nervous temperament. The creamy-white tongue serves to mark this particular character of the constitution most distinctly. The various appearances which the tongue assumes in disease have their important relative indications, which it is the province of the physician to study with due attention.

#### CASE VII.

**Sub-acute Rheumatism.**—Pain and stiffness of the shoulders, and of the dorsal and lumbar muscles; remarkably relieved by the vapor bath.

A YOUNG man, a coach builder, of slight frame, and of delicate appearance, after an exposure to cold, in the middle of December, was seized with severe pain of the head, which caused exceeding



tenderness of the whole of the scalp. It had continued for ten days, when, for its relief, he applied a mixture of vinegar and water, cold, very freely. On the following day, the pain of the head ceased, and the right shoulder joint became severely affected. Two days afterwards, the other shoulder and the left elbow were attacked; and, in a few more days, the right knee. He was much harassed with the constant suffering which he experienced; and, when I first saw him, in the last week of January, I found his situation as follows.

He was much reduced in flesh, looked pale, and was extremely debilitated; the pulse was 120, and weak; the tongue was foul, with prominent papillæ, and had an appearance like that produced by the action of mercury; the appetite was deficient; the bowels were, for the most part, confined. The pains affected him most during the night, and deprived him of sleep; together with restlessness, he was usually troubled with copious perspirations; so that, in the morning, exhaustion and universal stiffness and soreness made the exertion of quitting the bed, and of dressing himself, even though assisted, most dif-



ficult. All around the right shoulder joint the tendinous insertions were very tender on pressure, and the pain in the shoulder joint, on moving the arm upwards, was exquisitely great. The other shoulder was affected in an almost equal degree. The loins and the muscles of the back were stiff and painful. All around the external part of the knee the tenderness of the surface was remarkable, and the periosteum of the tibia was also sore on pressure.

I learnt that he had taken calomel and colchicum freely, and with very inadequate relief, as my statement has shewn; but, it must be added, there had been frequent very imprudent exposures to cold during the use of these medicines.

I thought this a case favorable, in many respects, for the use of the vapor bath, and directed the person mentioned page 172 to administer it in the patient's chamber, and to put him to bed immediately after. It was used every other day, four times, with the greatest advantage in removing the restraint of the shoulder joints, and of the dorsal and lumbar muscles. Then a gentle course of shampooing and frictions was instituted.



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As medicines, I directed full doses of sarsaparilla, from four to eight drops of the black drop every eight hours, and purgative pills with scammony and colocynth.

After a fortnight, I changed the sarsaparilla for sulphate of quinine.

I have the satisfaction of adding that the patient is now almost recovered ; and, instead of the look of emaciation, languor, and debility, with the body stooping, and a creeping gait, he is acquiring flesh and strength, looks cheerful, and is able to walk upright, and with considerable firmness.

CASE VIII.

Sub-acute Rheumatism.—No external appearance of inflammation ; but peculiar pains and disability clearly indicative of rheumatism.

A MARRIED lady, of middle age, slight in form, and very delicate in health, exceedingly reduced in the powers of constitution by a long-continued complaint of the stomach and bowels, and by intense anxiety of mind, contracted rheumatic pains from exposure to cold. In a short time, these pains became universal in the limbs, affecting also



the sciatic nerves. She was completely disabled, and confined to her bed ; but she was free from fever, and retained her usual moderate appetite. There was not, in any part, the least swelling or discoloration of surface. The ligaments and the nerves were the textures affected by the disease.

This lady derived much relief from a draught of ammoniated tincture of guaicum, joined with liquor ammon. acet. and pulv. ipecac. compos. gr. iii, taken every eight hours ; a suitable attention being paid to the state of the bowels.

I relate this case as exemplifying the existence of severe and universal pains of rheumatism, unattended by fever, or any external signs of inflammation. Such an example appears to support my definition of rheumatism as being a specific irritation of certain textures of the body, usually, but not essentially, attended with evident inflammatory action in the affected parts.



## CASE IX.

Sub-acute Rheumatism.—The patient possessing the rheumatic diathesis in a high degree. The case related chiefly as a clear example of the sub-acute species. The treatment speedily successful.

A CLERK in an office, aged forty-eight, slight in form, but muscular, had suffered from rheumatism, occasionally, since the age of fourteen; and once from acute rheumatism of long continuance. In the beginning of January, he was exposed to wet and cold, and on the same evening he had occasion to stoop, when, on rising, he was seized with instantaneous lumbago, the pain of which was so severe as to cause him to faint. He was confined to his bed several days. In the first week in March he travelled on the outside of a coach (on urgent business), exposed to an easterly wind, and he had accidentally lost his gloves. On the following day, he was seized with rheumatic pain in each wrist and hand, and also with a slight return of lumbago. I visited him on the second morning of this attack, and found the carpal tendons dis-



tended, the back of the hands and the fingers swollen, and some partial redness of the skin. The ligaments of the left ankle joint were also slightly affected. The fingers were painful, and the wrist especially. He was a person of irritable constitution, and the pulse was raised to 96 ; but he expressed himself to be free from sensations of fever, and that he retained his appetite. The tongue was rather coated with whitish fur, the urine was of a deeper colour than natural, and the bowels were confined.

I prescribed the draught, page 92, without antimony, to be taken twice a day, and the following pills at bed time : R Hydr. submur. gr. ii. pulv. opii crudi. gr. iss. extract. colocynth. compos. gr. viii. mucil. g. acac. q. s. M. et divide in pilulas iii. The evaporating lotion, page 120, was applied to the affected parts by means of layers of linen, covered by a thin muslin handkerchief through the day, and at night also, immediately over the wet rags, by a layer of oiled silk, by means of which the compress remained damp till the morning. He derived great benefit from the use of this lotion ; and it was important to him to ac-



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quire the use of his hands in the least possible time, as he had great occasion for the employment of his pen. The following embrocation was rubbed into the loins, and proved very beneficial.

R Tincturæ lyttæ  
 ——— opii  
 Linim. saponis compos.  
 Liquoris ammon. āā ʒss.—M. fiat Embrocatio.

This plan of treatment being pursued for five days, the sub-acute inflammation was removed. I should observe that on the third night the pills were omitted, and were taken only once afterwards, with a quarter of a grain of opium instead of the larger dose of a grain and a half.

The patient stated that every rheumatic attack which he experienced produced, in a short time, general feelings of weakness and a remarkable tendency to perspiration.

I now prescribed a course of sulphate of quinine, and of aperient pills, as occasion should require, according to the following prescriptions :

R Sulph. quinin. gr. ii.  
 Infus. rosæ ʒx.  
 Tinct. cinchon. compos.  
 Syr. Aurant. āā ʒi.  
 Acidi sulph. aromat. Ph. Ed. gtt. viii.—M. fiat  
 haustus bis die sumendus



R Pilul. aloës c. myrrh.  
 Extract. rhei āā 3ss.  
 Ol. carui gtt. ii.—M. et divide in pilulas xii,  
 quarum capt. ii. h. s. per re nata.

This treatment proved materially useful, and, to use the language of the patient, “created a vigor in the frame to which he had long been a stranger.”

I advised, as the summer approached, that he should enter on the use of the shower bath, with a view of lessening the susceptibility to rheumatic action, which had so fixed itself in the constitution, that, notwithstanding his late obvious imprudence, he was always apprehensive of an attack in some part of the body, if accidentally exposed. The hands being exposed on this occasion, without covering, seems to explain the partial nature of the chief attack.

#### CASE. X.

Sub-acute Rheumatism.—Affection of the wrists and ankles, joined with pleurodyne.

A NURSERY MAID, aged twenty-five, of delicate form, exposed herself to the late evening air, not



sufficiently protected by clothing, after having perspired much on a hot day in June. She had experienced acute rheumatism at the age of sixteen, but had not been rheumatic since that period, till the present time. She was attacked in the wrists and ankles on the morning following her exposure, and, on the day after, in the pectoral and intercostal muscles; from which, the act of inspiration was rendered extremely difficult and painful, without cough. The respiration was performed chiefly by the abdominal muscles. She suffered also much from pain and lameness of the limbs, and especially towards night; but she was only slightly affected with fever. There was not much local appearance of inflammation; and, in general terms, she said that her appetite remained but little affected. The treatment adopted was, the use of the draught page 92, with  $\frac{1}{6}$  of a grain of antimon. tart., joined occasionally with a colocynth pill during the day; of pills with hydr. submur. pulv. opii. crud. et pulv. Jacob. at night; and the chest was fomented with a decoction of poppy heads and camomile flowers.

By these means the patient obtained a cure in



a very short time, without the necessity of either losing blood or having a blister. By joining a suitable regimen with the use of the pills at night, free perspiration was produced, and with the best effects. Probably the cure was still more to be attributed to the influence of the purgative medicines.

I have, however, met with cases of pleurodyne less tractable; one, which I well remember, required cupping, leeches, and free blistering afterwards. Another patient who was affected with this complaint in the chronic form, derived great benefit from the repeated application of blisters.

#### CASE XI.

Sub-acute Rheumatism very protracted from the influence, chiefly, of error of the biliary system. Much local, in addition to constitutional, treatment required, and the cure finally assisted by the Buxton bath and the shower bath.

A GENTLEMAN, aged twenty-three, rather slight, and looking delicate from long-continued indisposition, had been suffering from a rheumatic com-



plaint for a year, when he first consulted me. The back of the right hand and two of the fingers were swollen, but not discolored; the sheaths of the tendons at the wrist were remarkably distended; he had frequent pain of the loins, between the shoulders, and in the muscles of the chest; but experienced particular distress from constant and excessive tenderness in the right shoulder joint, and the least motion of it was extremely painful. There was no external swelling. The disease appeared to be seated in the ligaments. He mentioned that, in the course of the last few months, he had been sensible of rheumatic pain in almost every part of the body. He had a frequent pulse; had lost flesh considerably; perspired much from slight exertion; the tongue was coated with flakes of yellow fur; and there was much yellowness of complexion. The urine deposited lateritious sediment copiously; the alvine discharges were irregular, and indicated either deficiency of bile, or such only as was of a vitiated kind. With all this state of error, the appetite was for the most part regular.

The patient had made use of warm sea bath-



ing three times a week ; and afterwards, with the same frequency, of the hot bath at Bath, without relief. From the sea air he had derived benefit, for a short time, to his general health. He had taken aperient medicine as occasion had required ; and, according to his own account, guaicum had been the anti-rheumatic medicine chiefly used.

It appeared to me evident that the general rheumatism in the constitution was kept up by an unhealthy state of the digestive organs, and especially of the function of the liver ; whilst, at the same time, particular parts had been so long affected with sub-acute rheumatic inflammation, as to render a combined plan of treatment necessary for the cure.

A few doses of calomel, in conjunction with the draught, page 92, omitting the antimony, were administered with advantage ; but this treatment was soon changed for the more alterative method, as the patient was in a nervous and debilitated state. Three times a week, he took pilula hydrargyri with colocynth ; and, on the other nights, scammony with colocynth, rhubarb, and soap. He was put upon a course of sarsaparilla first, and after-



wards of sulphate of quinine. He had recourse to a few vapor baths with advantage, to remove the muscular stiffness and ligamentous rigidity; but in this instance they proved too relaxing to the system to be persevered in. An evaporating lotion was used for the hand and wrist. To the shoulder leeches were applied repeatedly, and, afterwards, several blisters.

Being very materially better, he went to Buxton, and from the use of the natural bath, of pumping on the most affected parts, of friction and shampooing, of continual care in diet, which had been strictly regulated from the commencement of the treatment which I have described, he quitted Buxton at the end of six weeks, most satisfactorily improved in every respect.

Still feeling occasional aching pain in the shoulder joint, when the weather was changeable, he was directed to wear the plaster mentioned at page 166; and he derived from it much comfort and benefit. I advised that, after quitting Buxton, he should make regular use of the shower bath; and that he should occasionally resume the use of the sulphate of quinine. I have the satisfaction



of adding, that, in a few more weeks, the cure was altogether complete.

Having now endeavoured to exhibit the nature and treatment of Acute and Sub-acute Rheumatism, I shall avoid crowding my present volume with further cases in illustration of this part of my subject, and proceed to the consideration of the next division of my subject.



## OF CHRONIC RHEUMATISM.

THE acceptation of the word *chronic* (from χρόνος, time), as commonly used in medicine, implies that the disease, whatever it may be, pursues a tedious course; and we employ this term, therefore, to denote those morbid actions which subside very gradually, instead of terminating by some critical or manifest change, as we see take place in those more active forms of complaint which we denominate acute.

When chronic rheumatism affects the bursal membranes, tendons and tendinous thecæ, or ligaments, in young persons, it happens for the most part as a sequel of acute rheumatism; but, even in the young, a chronic rheumatic affection may occur as a primary complaint.

Usually, chronic rheumatism, appearing as the original form of the disease, is met with in per-



sons who have passed the middle period of life. The diminished sensibility of the textures which are usually the seat of rheumatism, as life advances\*, partly explains why they are less prone than formerly to be affected with active inflammatory action; and to this position may be added, that the constitution itself is less disposed to inflammation of fibrous textures with increasing years. In the present division of my subject, I shall not adhere to the strict analytical method which I adopted in the commencement of the Treatise, as most of my preliminary observations were applicable to rheumatism generally; and I wish to avoid unnecessary repetition.

Although a very sufficient distinction is apparent between the symptoms of acute and chronic rheumatism; yet, between the sub-acute and chronic, the limits are narrow; and, in many instances, it would be difficult to determine which of these terms would be most descriptive of the diseased action. According to my definition, page 13, it will be understood that, by chronic rheumatism,

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\* See observation, page 36.



I intend to designate that form of the disease which is wholly unattended by constitutional fever, and scarcely marked by any signs of local inflammatory action ; for, in proportion to the existence of such signs, the term sub-acute would be the more appropriate appellation.

If I have successfully argued that, even in acute rheumatism, the febrile disorder of the system is rather secondary than primary, although I admit, in its fullest force, the reflected and all-important influence of the constitution, it will be readily conceded that the chronic rheumatism is, in its essential nature, a primary affection of certain textures of the body. But even here also, in our pathology and practice, we must invariably consider the state of the constitution itself necessarily associated with the local disease. A healthy person may be suffering from a chronic rheumatic pain ; but, if the same local affection appear in one who is also affected with a disorder of the liver, the symptoms will be much modified, and the required treatment will be materially different.

The ligaments, the tendinous extremities of



muscles, aponeuroses, periosteum, and nerves, are the textures most commonly affected by chronic rheumatism. Bursæ, which are superficially situated, are also to be included ; but such as communicate with the cavity of the joints are more liable to the acute or sub-acute rheumatic action. Of the affection of the nerves from this disease, I shall treat separately, under the head of Neuralgia Rheumatica.

I find it difficult to accommodate the technical arrangement of my present subject to the strict language of the nosologist ; and it has been my object to propose only such artificial divisions as lead to practical distinctions.

It has appeared to me most simple and convenient to separate acute and chronic rheumatism as two species, because the boundary between them is wide ; and I have considered the sub-acute as a variety of the acute. Proceeding on the same practical principle, I shall treat of sciatica, and of nodosity of the joints, as distinct species\* of

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\* It might be more strictly agreeable to the views of the nosologist to speak of rheumatism as a species, and all its dif-



chronic rheumatism; but as other branches of nerves become affected by rheumatism as well as the sciatic, I have thought proper to include the various affections under the general term Neuralgia Rheumatica. The ancient writers evaded the present difficulty by treating of all the diseases of the joints under the general head of *dolores articulorum*; but so loose an arrangement was equally unfavorable both to theory and practice.

It must naturally be expected, that numerous and important modifications of chronic rheumatism will arise as dependent on the exact nature of the affected texture, and the particular situation of such texture and its relative functions, and upon the particular state of the constitution, as I have already stated.

I shall endeavour to illustrate the truth of these observations in the cases which I shall relate.

Many of the remote causes which I have stated as predisposing to acute rheumatism may be con-

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ferent forms as varieties; but, treating in a distinct manner of this disease, I have, upon the whole, found it more convenient to enumerate several species.



sidered as equally belonging to the chronic form of the complaint. Authors have mentioned the suppression of habitual hæmorrhages, from the hæmorrhoidal veins especially, and the repulsion of cutaneous eruptions\*, as tending to lay the foundation of rheumatism ; but I apprehend that such circumstances cannot fairly be regarded as bearing more relation to this disease than any other. Whatever causes induce debility and morbid irritability of the system, will tend to the production of disease in that particular mode which may result from individual diathesis or disposition.

In the immediate production of every species or variety of rheumatism, we are equally led to make a reference to cold, as the injurious agent, and to consider that it operates both as a predisposing and an exciting cause, producing modified effects, according to the manner and degree of its application, and according to the state of the frame and constitution of the individual.

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\* *Menses et hæmorrhoides, aliæ consuetæ sanguinis profluvia sufflaminatæ; eruptiones repulsæ, &c. sunt totidem causæ rheumatismi.*—Lieutard's *Synopsis Universæ Praxeos-Medicæ*, page 86.



The physical agency of cold on the human body is a matter of curious inquiry. With regard to rheumatism, its influence is the more remarkable when joined with moisture, which so much increases its power of conducting heat. But further, we may consider that the united influence of moisture and cold acts more powerfully than cold alone upon the lungs and upon the nervous system; debilitating thereby the animal powers, and diminishing the ability of healthy resistance in the vessels and nerves of the extremities. The most simple and most local influence of cold is seen in the production of chilblains, a peculiar kind of sub-acute inflammation in the vessels of the skin, evidently induced by too sudden a reaction of the superficial circulation after the chilling of the part. When the sedative power of cold is carried farther, so that no reaction follows, *frost-bite* is the consequence. The operation of cold, which gives rise to rheumatism, takes place in the textures beneath the common integuments; but, even in this instance, its sedative power may be carried so far as to oppose the re-action which



seems connected with rheumatic irritation. I shall relate an example.

A young man, of strong and healthy appearance, an undertaker, on one of the coldest days in January of the present year, the wind blowing strongly from the east, stood at a door for upwards of an hour, discharging the office of a *mute*. His feet were so chilled, that he lost all sensation in them for a short time; but he prudently restored the circulation by friction, and no inconvenience followed. On the next day he was subjected to the same duty, the weather being equally cold, and a stronger wind than before blowing from the north-east. Ere he had quitted his post of duty, he was sensible of a severe pain in the right hip and down the sciatic nerve. The sense of chill over the whole of the lower half of the body was extreme. He found himself fatigued and faint, and went into a warm bed without using the precaution of having the limbs well rubbed. In the night he experienced a sensation of numbness in the right foot, and which, in a few hours, extended upwards, rather higher than the hips. In a day or two the other limb was affected



in the same manner. He now could not walk without assistance; and dragged his limbs with that peculiar irregular action of the muscles which we witness in paralytic persons. From the feet up to the middle of the body, strong pinching did not cause the least perception of pain. To this statement I may add, that the bladder and the rectum were remarkably deprived of their propelling muscular power.

When the body is in health, in active exercise, and properly clothed, it is surprising how low a degree of cold can be borne with impunity.

Captain Parry, in his very interesting account of a "Voyage for the Discovery of a North-west Passage," observes (p. 134), "We were constantly in the habit for some months of undergoing a change of from  $80^{\circ}$  to  $100^{\circ}$ , and in several instances  $120^{\circ}$  of temperature, in less than one minute; and, what is still more extraordinary, not a single inflammatory complaint beyond a slight cold, which was cured by common care in a day or two, occurred during this particular period." At p. 147, two cases of lumbago are mentioned; but it does not appear that rheumatism was of frequent



occurrence. Mr. Edwards, in his Report of the few prevalent Diseases of the Esquimaux, observes, "Chronic rheumatism occurs; but it is rare and not severe. Abdominal and thoracic inflammations, in fact, seem to be the only active diseases they have to encounter\*."

This comparatively harmless power of extreme cold must, I apprehend, be in a great measure attributable to the absence of moisture in the atmosphere, and to the circumstance that the evaporation from the surface of the body, so carefully protected by clothing as it is in these circumstances, is not greater than can be counteracted by exercise. The effects of cold are far more sensibly felt, when augmented by a current of the air. Captain Parry remarks, "The effect of a breeze upon the feelings is well known to every person, even in comparatively temperate climates; but at a low temperature it becomes painful and almost insupportable. Thus, with the thermometer at 55° below zero, and no wind stirring, the hands may remain uncovered for ten minutes or a quarter

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\* Second Voyage, p. 150.



of an hour without inconvenience; while with a fresh breeze and the thermometer nearly as high as zero, few people can keep them exposed so long without considerable pain\*''.

In hot climates the limbs become affected in a peculiar manner by exposure to the cooler air of the night. Dr. Lind describes thus a complaint called the *Barbiers*: "a species of palsy most frequent in India. It distresses chiefly the lower class of Europeans; who, when intoxicated with liquors, frequently sleep in the open air, exposed to the land winds. Its attack is generally sudden, and entirely deprives the limbs of their motion. Sometimes all the extremities of the body are affected; sometimes only part of them." The patient "is often suddenly seized with a very painful sensation in the periosteum of the arms and legs. In persons of a good constitution, this pain abates as the day advances and as the air becomes warmer; but in others it continues for a considerable time; attended with a weakness of the knees, and uneasy sensation in the calves of the legs and soles of the

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\* Second Voyage, p. 546.



feet, especially on any attempt to walk\*.” Change of air, this author states, is chiefly instrumental to the recovery.

I must now return from this digression to my more immediate subject.

#### OF THE CONSEQUENCES OF CHRONIC RHEUMATISM.

THE opportunity of verifying our opinions of the morbid anatomy of this disease is so rare, and difficult to be procured, that I may well be excused if I treat this part of my subject in a more conjectural manner than may be desired. I have examined preparations of diseased joints and muscles, in various museums of anatomy, and have in this manner gained considerable information; but I have experienced the disappointment of scarcely ever finding any history of the case, or even of the nature of the disease, belonging to those specimens which appeared to be the most favorable for my inquiry.

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\* On Diseases incidental to Europeans in hot Climates, p. 272.



In the living subject, we are enabled to detect many of the evident changes of structure which ensue from long-continued rheumatism in the bursæ, in muscles, in aponeuroses, in tendons, in fasciæ situated over tendons, in the superficial ligaments, and even in the cartilages and in the periosteum. We find the bursæ enlarged, thickened, and hardened; the tendinous sheaths distended and thickened, and the tendons knotty at their insertions, and often remarkably contracted; the aponeuroses thickened; and, in the course of time, the muscles themselves appear to undergo a change of structure in their intimate fibres. I have seen preparations of muscles which, instead of exhibiting the ordinary appearance of fleshy fibre, seemed like a mass of ligament, of a light colour, and the fibres, as it were, cemented together.

In Morgagni, Letter 57, Art. 17, I find the following passages: "I do not remember to have lit on any other dissection of a rheumatic patient, but that taken from the mouth of Drelincourt, and made mention of by Havers in his Osteology; in which dissection Drelincourt found a jelly con-



creted on the surface of the muscles equal to two or three ducats in thickness:" and afterwards, "A young man who was a goldsmith had a violent pain in his loins, on the right side, which yielded to no remedy. A year being thus passed over, the pain began to attack the left side of his loins also; nor was he free from pains in his neck, which seemed rheumatic." The patient died; and the following account is given of the examination:

"When we came to that thick fleshy body which affords a common origin to the sacro-lumbus and the longissimus dorsi muscles, behold! an unusual colour appeared in that body, such as we see in old furniture made of the nut-tree; and yet not in the whole of that body, but only for about the space of five inches in length, and in breadth in like manner: and this was continued inwards, from the surface, in such a manner as to be seen in the subjected muscles likewise; that is, the sacro-lumbus and the quadratus lumborum. The fibres in the whole of that space which I have pointed out were surprisingly lax and yielding, and disjointed by frequent coagula of blood lying betwixt them."



Dr. Alexander Monro, Jun. in his "Outlines of Anatomy," mentions that "the muscles are frequently inflamed, as in rheumatism, and this inflammation does not terminate in suppuration, but in debility, rigidity, and the effusion of a gelatinous matter into the sheaths of the tendons, and their bursæ mucosæ\*."

In the palm of the hand, we frequently find the fascia thickened and contracted, as the consequence of slow rheumatic inflammation; and with this affection, the tendons, covered by the fascia, are commonly more or less knotted and contracted.

I believe that the capsular ligaments, now called the synovial membranes of the joints, are not commonly affected by rheumatic inflammation, at least, not those of the large joints; and the disease much more commonly affects those ligaments which are accessory to the motion of the joints, and which are subservient in their office to the tendons. Dissection exhibits to us opposite changes in this texture, from long-continued rheumatism,

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\* Vol. 1, p. 174.



viz. thickening, and partial removal by absorption.

In the cartilages of diseased knee joints, as shewn in preparations, I have seen a remarkable porcelain-like appearance ; in other examples, a serrated surface ; abrasion and complete loss of polish ; partial absorption ; and in a preparation of a knee joint, in the College of Surgeons, many supernumerary cartilages ; but I know not whether these various morbid changes were produced by rheumatism.

Mr. Stanley, of St. Bartholomew's Hospital, has favored me with an interesting account of a dissection of the joints of a man, apparently between forty and fifty years of age, in which the following very remarkable appearances were found. He was unacquainted with the history of the case ; and therefore I cannot offer the statement as an example of the consequences of rheumatism ; but the narrative is too curious to be omitted.

“The articular cartilages, in almost every situation, exhibited a perfectly white surface, such as would be produced by a very thin layer of plas-



ter of Paris spread over them. In some of the joints, a small quantity of the white substance was found in a fluid state within the capsules, which circumstance rendered it probable, that the white matter had been in every joint originally deposited loosely within its cavity, and that, mixing with the synovia, it had become smeared over the cartilages, giving to them a white covering. Almost all the joints were thus affected ; those of the extremities in the greatest degree. Even the articular cartilages belonging to the extreme joints of the fingers and toes were perfectly white. Around some of the joints of the toes, the same kind of deposition had taken place into the cellular substance, externally to the joint. By chemical analysis, the white matter was shewn to be carbonate of lime. Specimens of the joints are preserved in the museum of the hospital."

The periosteum undergoes change of structure from chronic rheumatism ; most remarkably in those cases of rheumatic disease which result from the influence of cold upon a patient under the action of mercury for the treatment of syphilis. In such cases it becomes much thickened. Rheuma-



tism may also be propagated to this texture from the tendinous insertions of muscles, when affected by the disease. In some cases of hemicrania, and in rheumatic affections of the bones of the head and face, we find the periosteum tender upon pressure.

#### THE DIAGNOSIS.

WHEN the characters of a disease are rendered obscure or confused either by peculiarity of constitution, or by the complicated structure and functions of the part affected, a careful investigation, which can only be founded on the best principles of diagnosis, is of all possible importance; for if we fail to discriminate correctly between diseases which, however they resemble each other, may differ entirely in their nature, with what reasonable prospect of success can the application of medicines be made?

In no department of the medical art are the discernment and skill of the enlightened physician more distinguished from the ignorance and errors



of the mere empiric, than in the knowledge of Diagnosis.

The intermixture of rheumatism and gout in the chronic forms is sometimes so considerable, that the constitution appears to be almost equally under the influence of the two diseases ; and, hence, the compound term in common use of *Rheumatic Gout*. I am disposed to argue that the gouty and the rheumatic actions never affect the same individual part at the same time ; although, undoubtedly, they prevail simultaneously in different parts of the body.

Chronic rheumatism, not preceded by the acute form, is of far more frequent occurrence than chronic gout\*. The hereditary influence is much stronger in regard to gout than rheumatism. The digestive functions are still more generally and remarkably deranged in chronic gout, than in chronic rheumatism ; and, in the latter disease, the patient can usually trace the attack to ex-

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\* Dr. Haygarth, in his Clinical History, mentions, "that out of 470 cases of rheumatism, only 170 had the rheumatic fever."



posure to cold as an external cause, without any other that is assignable. The age, and habits of living, and the general disposition of the constitution, are circumstances to be brought under our review.

Sir John Pringle, in describing the nature of chronic rheumatism, observes, "Some of the more obstinate pains may be of that kind which Sydenham calls the Scorbutic Rheumatism, or others, more properly, the *arthritis vaga*, or flying gout." He adds, "And I suspect that these pains may be of this kind that are sometimes felt after obstinate and regular intermittents; which Sydenham believes to be owing to the bark, though they were taken notice of long before the use of that medicine." He quotes an opinion communicated to him by Dr. Clerk, that *arthritis vaga* is often made distinguishable from rheumatism by the appearance of "white ropy filaments floating in the urine, which, when taken out of it, are pellucid, and when dried, turn to a kind of calx."

Such sediment in urine, composed of saline matter, and mucus in excess, denotes a disordered state of the digestive organs, of the kidneys, and



partly also of the bladder, and is more commonly associated with chronic gout than chronic rheumatism ; but it cannot, I am persuaded, be so completely diagnostic as has been here stated.

Chronic rheumatism does not so usually affect the hands, knees, and feet, as chronic gout ; and with more comparative frequency attaches itself to the hip and shoulder. It is also a more fixed complaint.

Dr. Haygarth\*, whose practical statements are entitled to the greatest regard, considers “that absence of tumor constitutes a clear criterion of chronic rheumatism from acute rheumatism, gout, scrofula, nodosity, and white swelling of the joints.”

In a reference to three hundred cases of chronic rheumatism, he remarks, “Out of the whole number, only fourteen patients were noted with any swelling in the seat of the disorder ; and it appeared, upon a more careful and deliberate investi-

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\* On the discrimination of chronic rheumatism, from gout, acute rheumatism, scrofula, nodosity, white swelling, and other painful diseases of the joints and muscles.—Med. Trans. of the College of Physicians, Vol. iv.



gation, that all these fourteen cases ought to have been classed under the other genera."

It has not appeared to me that this is a faithful ground for diagnosis. We see constantly that when chronic rheumatism affects the bursal or ligamentous textures in the hands, knees, or feet, more or less of enlargement takes place. In the knee and wrist, particularly, I have met with well-marked cases of chronic rheumatism attended with great enlargement: and, even in the phalanges of the fingers, swelling from the thickened ligaments and tendinous sheaths is a very common occurrence. Swelling (more or less) is only absent either in acute or chronic rheumatism, when the affected textures are ligaments not near to the surface; tendinous fibre immediately belonging to muscle; aponeurosis; nerve; and periosteum. Even in affections of these textures there is occasionally fulness of the integuments.

The peculiar affection called "nodosity of the joints" is distinguished by Dr. Haygarth by the following characters: "It is almost peculiar to women; without fever; the swollen joints on examination representing an enlargement of the bones



themselves; the comparative freedom of the integuments from inflammation; the muscles seemingly not affected\*.”

Under the head of wandering pains, the late justly celebrated Dr. Heberden has expressed, “that such pains are near akin to the rheumatism, but may be distinguished from it by their being accompanied neither with swelling, nor any discolouring of the skin.” He proceeds to say, “Are they not chiefly suffered by those whose muscular fibres have been weakened, strained, or stiffened, by long illnesses, profuse bleedings, bruises, irregular living, hard working, or the advances of age?” This description evidently applies to muscular infirmity only, and, coming from the hand of such a master, we may safely rely upon its fidelity. But I shall go a little farther in my view of the nature of such pains, and suggest that, when the muscular system has fallen into this kind of debility, rheumatism very commonly supervenes as a new form of disease. This fact will be rendered evident by the susceptibility of the patient to at-

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\* Transactions of the College of Physicians, Vol. iv, p. 319.



mospherical changes: one of the strongest tests, as I conceive, which can be mentioned of the existence of rheumatic disease.

General muscular pains also result from other causes in the way of sympathy; as from the influence of intermittent fever; from *colica pictonum*; and from worms.

Although it often happens that, in the intervals of an intermittent, the patient finds himself entirely exempted from all inconvenience, it is nevertheless observable, that, when the disease is obstinate and protracted, the whole body, and the limbs especially, become affected with wandering pains; and I know instances in which they have appeared to be of a rheumatic nature; but they are to be ascribed entirely to the debilitating influence of the fever upon the nervous system.

The pains which affect the limbs in *colica pictonum*, or that species of colic which arises from the introduction of lead into the system, in any manner whatever, do, in some instances, imitate rheumatism. When this disease is produced by the evident application of lead to the skin, as by house-painters, the symptoms are too character-



istic to be mistaken; but a chronic form of the disease takes place from the insidious introduction of this metal into the system, by the medium of certain liquors, as happened formerly in cider countries, when improper vessels were used in the manufacture of this agreeable beverage. The impregnation of water from leaden pumps has, in a very few instances, in which the water has contained a large share of carbonic acid, given rise to an anomalous form of complaint, in which pains of the limbs have been a symptom.

In all these cases, the manifest disorder of the bowels, with which the state of the limbs is in obvious sympathy, and the slight difference which can be observed during atmospherical changes, render the diagnosis from rheumatism sufficiently clear.

Sauvages has marked one of his varieties of rheumatism as proceeding from intestinal worms. This distinction will be detected by a proper investigation of the condition of the digestive organs and the alvine discharges, and of the degree of influence arising from changes of the atmosphere.



I have met with cases of chronic pleurodyne, or muscular rheumatism of the chest, in which the pain affecting the right side, and spreading round to the shoulder blade, has been incorrectly attributed to error in the liver. I have here founded my diagnosis on the evidently disturbed action of the intercostal muscles, the increase of pain from raising the arm, and from the absence of the characteristic signs of hepatic complaint.

On the other hand, a pain between the scapulæ, or of the shoulder at the head of the joint, is sometimes confounded with rheumatism, when really proceeding from the influence of disordered digestive functions, and especially from a faulty action of the liver. I have seen several instances of this kind, in which a continued pain of the shoulder has been treated by stimulating liniments and by electricity, without benefit, but which yielded to the use of mercurial purgatives and alterative treatment. The ambiguity in question will be removed by a careful investigation of the state of the secretions, and of the general condition of the digestive organs.

The sympathy existing between the intestines



and the limbs is considerable, from whatever cause the intestinal irritation may proceed. I have already alluded to that occasioned by worms. Sir George Baker observes, "A person shall suffer pains in his intestines, in consequence of being wet in his feet. A dysentery, injudiciously treated, shall be changed into a rheumatism\*."

Rheumatism affecting the lumbar muscles, called lumbago, is distinguished from nephritis by the evident increase of pain in the loins from the movements of the body, and more especially in changing from the horizontal, or even from the sitting to the upright position. Nephritic pain is accompanied by shooting sensations along the course of the ureter; often by a retraction of the testicle on the side affected; by numbness of the upper part of the thigh; and, most commonly, by some peculiar changes in the state of the urine.

When the mucous membrane of the kidney is affected with inflammation, either chronic or acute, a pain at the upper part of the loins is felt more or less severely, and the patient cannot easily walk

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\* Medical Tracts, "re-published by his Son," 1818, p. 313.



upright ; there is pain also in walking, which may arise from increased irritation, produced by the action of the *psoæ* muscles. Irritation of stomach, with occasional sickness, copious deposition of mucus in the urine, and some other symptoms, distinguish this affection from lumbago.

Those irregular pains and spasms which attend the commencement of a disease in some part of the vertebral column, claim a careful distinction from chronic rheumatism. They can scarcely be long mistaken ; for, in the progress of the complaint, the muscular power of the limbs becomes impaired in a peculiar manner ; and the functions of the bladder and of the bowels become affected with great irregularity.

Incipient internal aneurism may be productive of pain in some part of the back, from between the shoulders downwards, which may be confounded with chronic lumbago. I shall relate some cases of this nature which have come within my own observation ; and, in describing the symptoms which appeared, I shall endeavour to point out some diagnostic characters.

Rheumatic pains which are produced by ex-



posure to cold, when the system is under the influence of mercury, if simply arising from that cause, will not assume any very distinguishing feature from ordinary muscular rheumatism; but when a syphilitic taint is also in operation, the mixed affection which results is usually well-marked. In syphilitic rheumatism, as this form of complaint may be termed, symptoms like the following appear. The periosteum of the os frontis, or tibia, or ulna, becomes tender, painful, and thickened. Psoriasis guttata is also very frequently an attendant complaint.

I proceed now to consider the principles of treatment of chronic rheumatism.

#### OF THE TREATMENT.

THE application of remedies for the relief and cure of chronic rheumatism must be directed by the exercise of regular principles, and be varied according to the nature of the individual case. In the practice of medicine, as in numerous other pursuits, the mind is naturally inclined to act in



conformity with precedent, without exercising a proper degree of reflection and discrimination. Indolence and prejudice are too apt to favor this summary mode of proceeding. That disappointment which so often accompanies experience, teaches us the necessity of carefully examining even shades of difference, in different cases. In no disease is this remark more applicable than in the management of chronic rheumatism; and in speaking of various means of treatment, I wish it to be borne in mind, that the constitution and state of the individual patient are always to be considered, at least, equally with the symptoms of the local disease, and the general character of remedies.

*General bleeding.*—This measure is manifestly improper in chronic rheumatism, when resorted to solely for that complaint; but the state of the constitution may render it judicious, and we are not to be restrained from acting upon any positive indications which suggest the use of the lancet, by the existence of rheumatism in its chronic form. In certain constitutions, the inflammatory



diathesis prevails occasionally, even in chronic rheumatism; and, under such circumstances, a moderate abstraction of blood from the arm will be proper.

Indeed, the line of demarcation between the sub-acute and chronic forms of rheumatism sometimes can scarcely be drawn, and, consequently, many of the observations which I have offered on the former will be applicable to the latter state of complaint.

When inveterate chronic rheumatism has taken possession of the frame, affecting one class of textures, or different textures, without apparently involving the internal functions, or depending upon them, we are naturally led to the use of such medicines as have acquired a character for the relief of rheumatism; and we employ them on the grounds of general experience.

In recent cases of chronic rheumatism, and especially when the lumbar or other muscles are affected, sudorifics administered at bed time, joined with suitable sudorific regimen, will most probably be found beneficial. We may take our choice between a combination of the volatile tinc-



ture of guaiacum, joined with the acetate of ammonia and Dover's powder ; or vinum colchici joined with the two latter medicines ; using full doses of these remedies at bed time, and smaller doses in the day, should it be expedient to prescribe such repetition.

When we desire to effect the cure by the agency of sudorifics, it would be inconsistent with our plan to use purgatives with freedom ; and a regulation of the bowels, simply, may be held to be sufficient.

If the rheumatic pains be associated with a loaded state of the alimentary canal, or with manifest error of the digestive organs, as shewn particularly in the state of the secreting functions, the use of mercurial purgatives and alteratives will in most instances form an efficacious mode of treatment. With this method, it will be perfectly compatible to give a moderate sudorific at bed time, at least, occasionally ; and sedative medicine should be used as circumstances may require.

In old and obstinate cases of chronic rheuma-



tism, a well conducted mercurial course, so as to produce and keep up a very moderate ptyalism, will sometimes prove successful, after the failure of all other means. This treatment will usually prove more efficacious when joined with the use of the vapor bath.

In cases also, which have resisted more simple means, arsenic has sometimes proved remarkably successful. I very much object to the employment of large doses of this medicine, or to pursue its use, unless it afford relief in the course of five or six days. I have sometimes found it agree better when joined with a few drops of some preparation of opium. Dr. Bardsley, in his very instructive volume of Medical Reports, relates some striking cases of success from the use of this mineral.

Bark alone has seldom appeared to me to exert an anti-rheumatic quality; but, when administered in confirmed chronic cases, in union either with guaicum, or with oil of turpentine, I have seen good effects produced. At the Marylebone Dispensary, a mixture of decoction of bark with oil of turpentine is a standard remedy for chronic



rheumatism, introduced into use there by the late Dr. Temple; and I learn there a favourable report of its effects.

Such rheumatic patients as are free from irritation of the stomach and bowels may make trial of colchicum with propriety; but, unless it afford relief in the course of a few days, I should discontinue its use. When treating of acute rheumatism, I have expressed my preference of the acetic preparation in combination with a saline aperient; but, when we employ it with a view to the relief of chronic rheumatism, we seek rather to obtain its specific action. The wine of the roots is a stronger preparation than that of the seeds; and, if the stomach receive it favorably, may be given twice or even three times a day, in doses of half a drachm. The addition of a few grains of calcined magnesia, and from one to three drops of black drop, have often, in my experience, increased its good effects. If this preparation seem to irritate, we should make trial of the wine of the seeds; and, if that do not agree with the stomach, we may, with great confidence as to its mildness, prescribe the acetum colchici, with carbonate of potash or a few grains of



carbonate of magnesia to neutralise the acid, or an extract procured from the acetum colchici by evaporation, in doses of one or two grains in the form of a pill; and we can conveniently join with it the use of any fluid medicine which we desire to employ.

A course of sarsaparilla often proves useful in that kind of chronic rheumatism which is accompanied by general derangement of constitution, without the particular affection of any internal organ. We see that, as the health of the system improves, morbid irritability lessens, the flesh of the patient increases, his looks and strength improve, and, gradually, the rheumatic pains pass away. When the periosteum is affected, I have thought it advantageous to give the compound in preference to the simple decoction of sarsaparilla; but, invariably, I direct the use of the cortical part instead of the whole root.

The course of sarsaparilla here recommended should be assisted by the *juvantia*, in regimen, air, and suitable exercise.

The *Rhododendron chryanthemum*, a Siberian plant, has been recommended in chronic rheuma-



tism, particularly when the pains have been connected with syphilis. The dose is from half a drachm to three drachms in infusion. An interval of eight or ten hours should be allowed before the dose is repeated. It acts differently on different persons; but generally as a sedative and a sudorific; and it is rather astringent. It is a safe medicine, and at the same time possesses considerable power.

The ling-liver oil (*oleum jecoris aselli*) was recommended by the late Dr. Percival\*, and is favorably mentioned by Dr. Bardsley in his Reports. I have known it used with good effects in some cases of obstinate chronic rheumatism; but, in other instances, although taken with great perseverance, it has not appeared beneficial. The dose is from half an ounce to an ounce once or twice daily. To some persons this medicine proves insupportably nauseous; yet I know one patient, a female, who found her appetite improve during its use; and with her it acted favorably as a sudorific, and was mildly aperient.

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\* Died 1804, aged 64.



The treatment of chronic rheumatism embraces the consideration of topical applications, and of the various kinds of baths.

*Leeches and cupping.*—When a rheumatic joint is affected with manifest signs of increased vascular action, although not to the degree of causing redness and heat of the surface, the use of leeches or cupping will usually prove beneficial; and one or other mode of abstracting blood may be employed according to the situation of the complaint. With the exception of the hip joint, leeches are for the most part to be preferred. The process is tedious and troublesome; but the gradual manner in which the vessels are depleted is favorable towards that change in the function of anastomosing vessels which it is desirable to effect. This advantage is more decided when the seat of disease is not far removed from the surface. When rheumatic pain is deep-seated, and when the vessels near the surface seem to be deficient in action, dry cupping is a very proper remedy, and one which, in my opinion, deserves to be more frequently employed than it is, in chronic inflammations attended with local and general weakness.



It was a simple, but not irrational, direction of Aretæus, that, in arthritic affections, parts when cold should be treated by hot applications, and when hot, by cold. Celsus, in his chapter, "*De manuum et pedum articulorumque vitiis*," expatiates on the fitness of these principles of treatment.

The use of fomentations and of evaporating lotions will be comprehended respectively in this view. If it be our object to stimulate the surface, hot vinegar will be useful ; if rather to soothe, the poppy fomentation ; for although the application of moist heat is the chief rationale of such treatment, we should not despise the influence of a mixture of poppy or opium with the water, and more especially of the extract or leaves of belladonna.

The use of evaporating lotions, applied cold or tepid, is appropriate when there is a sense of heat and throbbing, and when the part affected is near the surface, as at the ankle, knee, and wrists.

In obstinate, deep-seated affections, as at the hip, shoulder, and, occasionally, even at the knee joint, blistering may prove useful ; but it has been less so, according to my experience, than I should have expected ; and, with persons of irritable con-



stitution, I have seen hurtful irritation ensue, without any consequent benefit. I apply the same observation to the use of tartar emetic ointment. In lumbago, I may observe, that when the disease is seated in the muscular parts, when it is recent, and does not yield to other means, a blister is a fit remedy. In slight cases, a mustard poultice proves quickly useful.

As a soothing plaster, I recommend, with satisfaction, one composed of equal parts of emplastrum opii and ceratum saponis ; and, if severe pain be felt, we may resort to the higher power of belladonna, and in the same way ; but I have certainly sometimes seen the former application prove more useful than the latter.

Dr. Bardsley states that “ the following composition proved of excellent use in that most tedious kind of chronic rheumatism which often attacks young females soon after the age of puberty ; and is attended, for the most part, with stiffness and swelling of the ankle and knee joints. Indeed, whenever the disease had left a thickening, and almost indurated state of the integuments, as well as rigidity of the tendons and liga-



ments of the joints, the local stimulus of this application was attended with good effect.

#### EPITHEMA STIMULANS.

℞ P. gummi ammoniaci ℥ss. aceti scillæ, ℥iii. coque simul leni igne ad spissitatem idoneam, et materiam frigefactam cola; deinde super alutâ illam extende; et pulv. salis ammoniæ muriatæ ad libitum, superficiâ inspergito. Fiat epithema.

The addition of more or less of the muriated ammonia must be regulated according to the degree of irritation which it may be thought proper to excite. In most cases, it is better to use it sparingly at first.

To parts affected with rheumatic pain, unattended by superficial inflammation, I have usually seen much benefit derived from the use of the embrocation mentioned at page 328.

Electricity has, for the most part, disappointed me as a remedy for the relief of chronic rheumatism. I have, however, occasionally seen it useful when the nerves have been affected; and, in proportion as the muscles have been in a state of relaxation, and requiring excitement. Dr. Bardsley commends this remedy (and sparks in preference to



shocks) when the disease more particularly affects the muscular fibres, and when coldness and torpor prevail. His plan was, "first to order the diseased parts to be exposed to the action of vapor ; and, during this operation, a stimulant liniment to be diligently rubbed upon their surface ; and, finally, the application of electricity." I may here remark, that in this assemblage of remedies, any praise due to the electricity could only be divided.

The administration of baths stands very prominent in the list of remedies for chronic rheumatism ; and, of the numerous kinds, each deserves some notice.

*The warm bath*, prepared with common water, may be proper in any case of chronic rheumatism, used upon general principles, and is always a safe remedy ; but very rarely, according to my observation, exerts much, if any, curative influence on the rheumatism itself. A course, continued with patience and perseverance, of warm sea-bathing, often proves very useful in assisting to amend the general health ; an effect, to which the change of air, scene, and habit, materially contributes. With



such constitutional improvement, the pains of chronic rheumatism may gradually pass away.

*The vapor bath\** is much more remedial in relieving the stiffness of muscles and ligaments; as well as the aching pains attendant on that condition of parts, than the warm bath. In cases which are not much confirmed by time, or by too inveterate a degree of the rheumatic diathesis, good effects are often very speedily produced. This remedy, simple as it may appear, operates very differently, according to the mode in which it may be employed. In urgent cases, it is desirable to protract the sweating process by placing the patient for a given time on the bed between blankets, and giving warm fluid of some kind. The temperature at which the vapor is to be used, must depend on the patient's feelings, which will

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\* A great importance is commonly attached to the use of a sea water vapor bath, in preference to common water; but without reason, for the saline matter does not pass over with the vapor; and if it were more useful, it would be easy to saturate the water with salt.



vary accordingly as the skin yields and perspires freely ; for when this effect does not occur, the temperature cannot be raised very high without causing distressing sensations of feverish heat. Unless it be desired to subject the lungs to the influence of the vapor, I am not aware of any advantage in including the head in the bath ; and the patient usually much prefers the opportunity of breathing in the air.

I must observe, that in the use of high temperature, moist or dry, consideration should always be given to the state of the circulation ; for I have known many instances in which persons of plethoric habit have been in this manner seriously injured, from the omission of reducing the fulness of the habit as a preliminary step.

*The hot air bath* proves more serviceable in certain cases of chronic rheumatism than the vapor bath : for example, when the skin is either too prone to spontaneous perspiration ; or, when affected with habitual coldness. When, from any mode of warm bathing, the cooling process by perspiration takes place only moderately, and the



system therefore becomes fully charged with caloric, free exposure to the open air (unless when cold or damp) is agreeable, and can be practised with impunity; but I think that patients are often too careless in this particular, and do not distinguish between the different conditions of susceptibility, according to the circumstance which I have just stated\*.

The power of warm water, and of warm air, as a bath, is increased by natural and by artificial impregnations. The waters of Aix la Chapelle and Barége hold the highest reputation amongst those impregnated with sulphuretted hydrogen gas. They are highly stimulating, and in old cases of rheumatism, in which almost a paralytic condition of muscles has at length taken place, are to be placed amongst the first class of external remedies.

The use of a bath of sulphurous vapor, ob-

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\* Mr. Green, of Great Marlborough Street, has fitted up the vapor, sulphur, and hot air baths, in great perfection; and administers them with a degree of skill and care which must give universal satisfaction.



tained by volatilising sulphur on heated iron, is strongly exciting to the skin, and is a favorite remedy of the present day, not only in the treatment of many cutaneous affections, but also of chronic rheumatism when affecting the frame generally. It deserves recommendation in cases in which the use of moist vapor is not so much indicated, and when hot air simply does not serve to stimulate the skin sufficiently.

The power of the sulphur bath is varied according to the quantity of sulphur thrown on the hot plate. The range of proportion is from two drachms to two ounces.

*The waters of Bath* have the advantage of affording to the patient a high temperature, with the opportunity at the same time of keeping up muscular action; and which even very lame persons are capable of maintaining, in the medium of water instead of air. These baths are most to be recommended in those confirmed and worst cases of chronic rheumatism which border on paralysis; such infirmity arising from the great want of tone in the vessels and nerves.



*The Buxton Bath* is one which nature appears to have presented to the use of man as a highly efficacious remedy for most of those states of rheumatism in which inflammatory action is not present. It is held in just estimation, and its high value is testified by the numerous annual cures which it effects. But this, as is the fate of all valuable remedies, is too often carelessly and indiscreetly used ; and, from this cause, in such instances, necessarily disappoints the hopes of the patient.

It should be considered that this bath, in its first employment, tends to excite irritation in persons of sensitive constitution or in a delicate state of health ; and in persons who labor under fulness of habit, it may do injury by the sudden disturbance of the circulation. Should there be any degree of inflammatory rheumatic action in the limbs, the use of the bath is decidedly improper ; and it is found almost invariably to increase the inflammation, and to produce much constitutional irritation.

The leading merit of the Buxton bath is its intermediate temperature between the cold and the



warm bath, so that it is tonic without being repelling; and, although a slight perception of cold, hardly amounting to a shock, is experienced on first entering the bath, the opportunity which the size of the bath allows to the patient of keeping in free motion, materially assists that re-action, or, in common language, the production of that pleasant sense of glowing warmth, which invariably takes place when the bath acts most favorably. Indeed, in the use of every bath not of a warm temperature, the principle of its action is to be estimated by the result of that shock or disturbance communicated to the heart, which partly takes place through the medium of the nervous system, and partly through the expulsion of the blood from the surface to the centre. In persons whose powers are feeble, it most commonly happens that the heart does not favorably recover from the sudden disturbance which it receives; in other words, a favorable re-action does not follow; and, therefore, instead of a sense of invigoration and refreshment, coldness of the surface, languor, and general depression ensue.

It is important, therefore, that, previously to the



use of the Buxton bath, the balance of circulation should not be materially wrong ; that no internal obstruction should exist, or certainly not in any considerable degree ; and that there should be freedom from inflammatory action, whether rheumatic or of any other kind.

It is usually advisable to introduce the employment of the natural bath, by the use of the tepid bath, which is always prepared with the waters of the same springs, graduated in its temperature according to the medical direction given\*. The application of a douche of water from the natural bath, by means of the pump, proves very beneficial to parts weakened by rheumatism ; and, in general, soon causes a reduction of size in distended bursæ.

*The Shower bath* is a most valuable remedy in the treatment of chronic rheumatism. The tempera-

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\* In my Treatise on Mineral Waters, I have detailed some directions for the use of the Buxton bath ; and, I shall have occasion to advert to the subject in narrating some of my cases.



ture of the water should be graduated at first, from about 82° downwards ; and, usually, I direct that the patient stand in warm water when receiving the shower. The quantity of water is also to be gradually increased from one to four or five pailfuls. It will sometimes be desirable to add bay salt to the water, and particularly when the action of the cutaneous vessels is languid. The shower bath is most remedial when used cold, provided that the proper re-action ensues after the shock ; and, therefore, it should always be our endeavour to bring the patient to this point of endurance. I have often been agreeably surprised to witness the satisfactory results of the cold shower bath in chronic rheumatism, even with patients of delicate appearance ; and for whom, unless so much encouraged by my experience with this remedy, I might have been timid in prescribing it.

*The Douche* is a forcible and local application of water or vapor, by means of a pipe, which, for the former purpose, usually communicates with a forcing pump, and, for the latter, is connected with a reservoir of vapor. The water douche may



consist of simple water, at a temperature from 80° to 108°, or of water naturally or artificially\* impregnated with sulphuretted hydrogen gas.

For the relief of parts permanently affected with chronic rheumatism, either of these modes of treatment possesses considerable efficacy. A state of weakness, almost amounting to paralysis, sometimes impairs the textures subservient to the use of a joint; and in such cases the water douche may prove highly useful; and it derives an increase of stimulating power from being impregnated with

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The following formula for the purpose of making an artificial sulphuretted bath is that proposed by Planche and Boullay:—Take of Sulphuret of soda, or of potash, ℥iii. distilled water, lb. i. carbonate of soda, ℥ii. muriate of soda, ℥ii. sulphate of soda, ℥i. Mix.

This quantity is to be added to twenty gallons of water.

At the Royal Baths, York Terrace, Regent's Park, I have had the opportunity of directing this preparation to be used both as a bath and a douche. The nitro-muriatic acid bath for the whole person can also be procured there; and, in addition to the establishment of all the usual baths, the proprietor has, with great liberality and judgment, fitted up a spacious plunging bath, which allows of being graduated to the temperature of the Buxton water, or to any other temperature which may be desired.



sulphuretted hydrogen gas, as I have just now stated. Care must always be used not to excite inflammatory action by over stimulus with the douche.

The vapor douche is more suited to the relief of parts in which the greatest degree of rigidity prevails, with coldness of the integuments, and every indication of local torpor of the vessels and nerves. The excellent patent vapor bath invented by Captain Jekyll, comprehends in its construction the facility of applying a douche of vapour.

In cases of recent rheumatic affection, the ordinary mode of fomentation with hot water, simple or medicated, proves very useful.

I have found a fomentation, prepared according to the following formula, attended with good effects in relieving the local pain of rheumatism: *R Fol. belladonn. ʒii. papaveris capsularum concisarum, ʒiii. aquæ ferventis, lb. ii. Macera per horam, et postea digere super ignem per quartam horæ partem. Macera iterum per horam, et cola.*

Lastly, as another mode of applying the stimulus of heat to limbs impaired by rheumatism, or other causes, I may mention the use of



*mud baths*, which are known on the continent ; as at St. Amand near Valenciennes, Bagnères de Luchon, Barbotan, &c. The earth, which becomes saturated with the sulphuretted water, is used for the same medical purposes as the contiguous fluid baths. In the description given of the mud baths at St. Amand, the earth is said to be composed of a kind of turf mixed with a black and spongy earth. These mud baths are used in the heat of summer, when, from the influence of the sun's rays, they acquire a high temperature. The parts affected with rheumatism are completely enveloped in the mud, for a longer or shorter time, according to the nature of the case. I have met with two patients who made trial of the remedy, but they soon objected to its uncleanness, and did not consider that it possessed any advantage over the more convenient bath of sulphuretted water.

As a mode of applying topical heat and stimulus to parts rendered rigid by chronic rheumatism, the use of poultices is by no means ineligible. These may be simply emollient, or anodyne, being prepared, for example, with the fomentation directed in the preceding page, and equal parts of



linseed meal and grated bread ; or may be rendered stimulating by the addition of camphorated spirit, strong ale or porter ; or, as a sinapism consisting of vinegar and flour of mustard.

As a vehicle of dry heat, I have known relief afforded to a rheumatic part by the application of heated salt in a flannel bag. For the attainment of our object, we should not lightly estimate the employment of means the most simple and easy of access.

As a local treatment, the use of friction and shampooing is to be considered of the greatest importance ; and, in many cases of chronic rheumatism, I have found it impossible to make much progress in the cure or improvement (for cure is not always within our reach), without calling to my aid the valuable agency of this process. Briefly to speak of its good effects, I may observe that it tends to excite a better circulation, especially in the veins ; to give more tone to the muscular fibre ; to overcome rigidity of parts, and thereby to improve motion ; to stimulate the absorption of synovial accumulation, or of effusions into the cellular membrane ; and, in a word, to counteract that torpor in the vessels



of all the affected textures which is so common a consequence of long-continued rheumatism.

The use of bandages has strongly been recommended by Dr. Balfour of Edinburgh, as a remedy for a rheumatic state of limbs. I have often found it to be a very useful treatment, and especially when the joints are impaired in their power of motion from synovial accumulation in the bursæ and in the sheaths of tendons; but it appears to me that this author has greatly overrated the efficacy of this remedy, and, indeed, advised its employment much too generally; for, when there is inflammatory action, attended with great tenderness of parts, the compression of a bandage becomes distressing to the feelings of the patient, and, according to my observation, aggravates the symptoms\*.

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\* I received the following interesting communication from a medical friend, filling the office of physician's clerk at a celebrated Infirmary. I am requested to avoid the mention of names, out of delicacy.

“ Three patients were admitted, in one of the winter months, complaining of severe pain in the joints of the lower extremities, increased by pressure and by the heat of the bed. The pain



## CASES OF CHRONIC RHEUMATISM.

IN offering an illustration of the principles of treatment by the narration of cases, I am precluded by the necessary limits of this volume from entering into very minute details ; and it will rather be my endeavor to condense the information which I wish to offer, and confine myself to those points which appear to me the most essentially important.

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was much aggravated when attempts were made to walk. To give merely a general description, I have to state that the pulse was rather full, with general symptoms of slight pyrexia. The bowels were freely acted upon ; low diet was observed ; and, in short, the patients were kept at rest and free from excitement. The febrile symptoms were thus removed ; but neither was the pain of the joints removed, nor their power restored. Flannel bandages were then applied exactly upon the plan of Dr. Balfour. Immediately on the application, the patients were desired to attempt to walk, which they were unable to do, but said they felt as if supported and strengthened in the limbs, having power to stand with less pain than before. In these cases the use of the bandages was persevered in for a considerable period ; as also in some other cases which were admitted about the same time. This had not the effect of removing the disease ; and other treatment was then adopted. The conclusion drawn was, ‘ that bandaging may aid other remedies, but alone, is by no means to be depended upon.’

“ On a subsequent occasion, another fair trial was given to



## CASE I.

Chronic Rheumatism.—The symptoms in great measure supported by a state of error in the biliary functions. The nervous system much debilitated. Aperients, correctives, and, finally, tonics with the shower bath, successful.

A GENTLEMAN, aged forty-one, of the nervous temperament, had been suffering from chronic rheumatism for a year. When he consulted me, he described that, in the first instance, he was seized with pain and stiffness in the muscles of the neck, and with general pains in the arms and legs, unattended by fever. In the beginning of summer he had experienced some amendment; but during the hot weather he became debilitated; and, together with the general pains in the upper and lower extremities, he suffered frequently from pain and soreness of the scalp,

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this mode of treatment; and the reports upon its issue were decidedly unfavorable as to its possessing any important efficacy. Some cases in the ward not bandaged, as nearly as possible under the same circumstances as others in which bandages had been used, were the soonest relieved. In one case, indeed, a bandage was applied to one of two limbs equally under the influence of the disease; and the limb not bandaged was reported to be well sooner than the other."



and from sciatica on one side. He went to the sea side in the autumn, and used warm sea bathing, without much relief.

I found that he was much reduced in flesh, was debilitated, and was so highly nervous, that he declared himself incompetent to all exertion, and that life itself was burdensome. His sleep was broken by pain and restlessness; his digestive organs were much disordered, as was shewn by the unhealthy appearance of the tongue; an aphthous state of mouth; irregular appetite; lateritious sediment of the urine; a torpid state of bowels, and the excretions almost constantly indicating a deficiency of bile. Occasionally, he felt pain in every part of the body, and was never wholly free. In walking up stairs, he was often seized with cramps in the muscles of the legs, as if some one were violently grasping them; and at night he was harrassed with jactitation, both of the upper and lower limbs. Damp weather produced a sensible aggravation of depression and weakness; and the east wind increased every pain.

For the first week, I directed mercurial purgatives; a cordial mixture, consisting of ammonia,



aromatic confection, and camphor mixture, when a sense of great depression should require its use ; and, at night, the following draught :  $\mathcal{R}$  Liquor. ammoniæ acet.  $\mathfrak{z}$ ss. vin. colchici,  $\mathfrak{m}$ xxv. gutt. nigr.  $\mathfrak{g}^{\text{ss}}$ . iv. misturæ camphoræ,  $\mathfrak{z}$ i. M. The diet was strictly regulated. Afterwards, he was put on a course of sarsaparilla, in conjunction with alterative pills, containing small doses of pilula hydrargyri, some pulvis aloes compositus, and Castile soap, every other night. At the end of three weeks, this plan was changed for the use of sulphate of quinine, with pills, as at page 329, and the employment of the shower bath. By a course of such proceeding, this patient perfectly recovered his health.

Before I was consulted, he had not done justice to any medical advice, being averse to medicine, and expecting, as he said, that the disorder would wear itself out. He had often been careless in exposure, and had not paid attention to diet. In protracted cases of this nature, we almost invariably find that rheumatic pains are kept up by a state of liver, more or less disordered. This is rendered manifest by the appearance of the ex-



cretions. Even without making reference to the ultimate purposes of the bile, we must allow an important influence on the general health to the functions of the liver. As a large organ of secretion, it is highly important; and, also, as being much concerned in the process of digestion, and in the return of the blood from the alimentary canal to the right side of the heart, it takes a great share in the functions of the animal economy; so that, when the regular action of the liver becomes much interrupted, we need not wonder that the proper balance of circulation is disturbed, that healthy digestion is suspended, and that nervous sympathies are brought into action.

It often happens that the immediate functions of the stomach do not appear to be much impaired, as food is commonly taken with appetite, and without sensible indigestion. It is rather below the stomach that the nutritive processes are unhealthily performed. The patient loses flesh in a much greater degree than could be explained by the diminution of food, as compared with the quantity taken in full health. Also, the nervous system is so much disturbed by frequent daily



pain, and by nights of unrefreshing sleep, that nutrition does not proceed favorably ; and hence the body wastes, and the muscles shrink and become relaxed.

Nature appears to require much assistance in cases of this description. In the present instance, time confirmed the symptoms. The interposition of medical art might be less indispensable, with change of climate and a strict regulation of diet ; but I think it reasonable to claim for the power of medicine, in most cases of chronic rheumatism, the merit of rendering material service, in mitigating suffering, removing many positive causes of irritation, and training the constitution to a great amendment, if not always to the recovery of health.

#### CASE II.

**Chronic Rheumatism.**—Hepatic derangement, a prominent part of the case. Great debility of the nervous system. As in the former example, a combined and varied plan of treatment proved successful.

A GENTLEMAN, tall in stature, and of the middle bulk, aged forty-five, consulted me under cir-



cumstances, in many respects, similar to those described in the preceding case. He mentioned that he had been subject to rheumatism ever since he was eleven years of age, and that the first seizure was in the feet and hands. He experienced attacks, which, from his description, were sub-acute, about once in six years ; but in the spring of each of the last two years he suffered severely, both in the upper and lower extremities. Cramp, and chiefly in the gastrocnemii muscles, was a most distressing symptom. He complained of extreme weakness of the knees and legs, with soreness ; and a remarkable sense of coldness in the knees and hips particularly, even if sitting near the fire. He had occasional lumbago. Indeed, he was universally rheumatic. The fingers were much distorted. The knees were swollen, and the ankles were considerably enlarged, evidently from a thickened state of the ligaments.

The appetite was not wanting ; yet the digestive functions were disordered, and the patient had become very thin, and was in the most hypochondriacal state of spirits.

He made trial of vapor baths for a short time,



certainly with advantage, as regarded the condition of the muscles and ligaments ; but he considered himself to be rendered more weak and nervous by their use.

Colchicum and opium had proved unfriendly medicines to the stomach and nerves of this patient. My primary treatment was directed to the state of the hepatic functions. As sedative medicines at night, I prescribed, with success, a combination of lactucarium, conium, and castor. Turpentine was decidedly useful in relieving the rheumatic symptoms.

In the concluding treatment, this gentleman derived essential benefit from sarsaparilla, and from sulphate of quinine, in successive courses ; and from a persevering use of the shower bath. I must not omit to add, that friction and shampooing, together with the use of liniments, rendered material service in restoring the action of the joints and the firmness of the muscles. The air of the country, and horse and foot exercise, served to complete the cure ; and I know that, for a year, no relapse had taken place.



## CASE III.

Chronic Rheumatism, succeeding to the acute.—The patient's place of residence changed with advantage. In addition to medicines, the shower bath very useful, and finally a sea voyage.

A GENTLEMAN, aged forty-five, rather inclined to corpulency, having a thin skin, and perspiring readily from slight exertion ; first contracted acute rheumatism at the age of thirty, from sleeping in a damp bed. A few years after, he experienced a second attack, induced by exposure to damp and cold ; and, for the third time, in the year previously to my seeing him. In this last illness, he described that he was affected in the most severe manner from head to foot, and that the slightest attempt to move in bed produced the most excruciating pain. He could not endure the weight of a heavier covering than the sheet. This severe attack terminated in chronic rheumatism, for which I was consulted.

It would be difficult to enumerate the various symptoms of which he complained. All the joints and most of the muscles were affected. On quitting his bed in the morning, he found difficulty even in standing ; and during the day, although



a man of great exertion, the act of walking was difficult, and sometimes impossible. His chest was so affected that he often felt as if a wedge were pressing the breast bone to the back ; the intercostal muscles were occasionally painful, and the breathing uneasy ; the temporal muscles had often the sensation of being bound with cords. He was altogether in a truly nervous and suffering state.

He reported that the vapor bath had proved more useful than the warm water bath, and that he always received temporary relief from the wine of colchicum ; but that, if he persevered in its use, he thought himself rendered more nervous. He found immediate benefit from the sea air.

I learnt that his place of residence was damp and cold ; and I assured him I could have no confidence that any treatment would be permanently useful, unless he would not only have recourse to a temporary change of air, but would eventually remove to a more favorable situation and climate.

He adopted my advice, and entered upon a plan of treatment, in most respects similar to that laid down in Case I. The shower bath was



eminently useful to this patient ; and not less so, the sulphate of quinine, according to the formula, page 307. He derived great benefit from taking a short sea voyage ; and I have reason to believe that this gentleman is now in the enjoyment of good health.

#### CASE IV.

Chronic Rheumatism, succeeding to acute attacks. The symptoms evidently depending, in a great measure, on the faulty state of the liver. The cure effected by alteratives, aperients, and by sedative medicine, with due attention to diet and regimen.

A GENTLEMAN, aged fifty, of the nervous temperament, and of a bilious diathesis, after exposure for several hours to wet, was attacked with rheumatic inflammation in each foot in succession. The acute symptoms disappeared in ten days, but distressing weakness remained for two months. Before much time had elapsed, he became affected again in the feet, and also in the hands, knees, elbows, and shoulders ; in a hand and shoulder ; hand and knee ; hand and foot ; but never in two parallel parts at the same time. The pain came



on late in the evening, and continued through the greater part of the night. It was a severe gnawing pain, and seemed to be in the bone itself. It was often preceded by a sense of coldness in the flesh, and a general chilliness. This was occasionally followed by heat, and by a swelling of the parts, which gave relief. When I saw this patient, he had labored under this complaint for ten months, with only short intervals of amendment. It was so fugitive as to situation, that it never remained in the same part more than two or three days. He mentioned that any accidental exposure to a damp atmosphere, or to draughts of cold air, would certainly produce a great aggravation of his symptoms. The complaint also seemed to have an intimate connexion with the state of the stomach and bowels. The secretions were quite unhealthy. The urine usually deposited pink sediment. There was great deficiency of bile, as indicated by the clay-like appearance of the alvine discharges; and the action of the bowels was torpid. He had made trial of the warm bath, and with some relief to the pain; but such excessive perspiration followed, that he found himself de-



bilitated and rendered very sensibly more tender by its use ; and was therefore much more susceptible of ill effects from the changes of the weather.

I prescribed the following medicines :

R Pilul. hydrarg. gr. iiss.

Pulv. alöes compos. pulv. rhei. āā gr. iv.

Sapon. dur. gr. ij.

Decoct. alöes compos. q. s.

M. intime et fiant pilulæ iii. omni nocte h. s. sumendæ.

R. Ammon. carbon. gr. xiv.

Succi limon. ʒss.

Mist. camph. ʒj.

Syrupi tolutan. ʒss.

Guttæ nigræ g<sup>tt</sup>. viij.—M.

Fiat haustus bis terve die sumendus, prout dolores urgent.

He was directed to apply the evaporating lotion (p. 120) to any part affected with much tenderness. His regimen, in regard to diet and clothing, was carefully regulated. By a perseverance in this method of treatment for six weeks, lessening the frequency of the doses both of the pills and draught at the latter part of the period, he obtained a cure. He used afterwards, by my direction, as prophylactic treatment, ablution of the head by



means of a coarse towel dipped in cold water, and sponging the feet with salt tepid water, very regularly; and with equal comfort and advantage.

#### CASE V.

Chronic Rheumatism, with much general derangement of the constitution.—Irritation was kept up in this case by over-exertion, mental and bodily; together with suitable medicinal treatment, a life of more repose was found essential to recovery.

A GENTLEMAN of the medical profession, aged 44, subject to much daily fatigue from walking exercise, was distressed for a series of years with chronic rheumatism, and severe dyspepsia. Occasionally he suffered lumbago and a painful spasmodic state of the intercostal muscles. At one time the upper extremities were most affected; at another, the lower. At the wrist and ankle there was painful bursal distension; on the fibula of each leg, some thickening of the periosteum. The flexor tendons of the feet were usually painful. He was troubled with boils in different parts, and with psoriasis on the arm. In the thigh an ill-conditioned ulcer formed. The tongue was singu-



larly affected with a sort of fungous ulceration, and presented a cracked appearance on its general surface. This gentleman had tried the bathing in the Bath waters, together with their internal use, without advantage; but he had derived material benefit from the warm bath at Brighton. He relapsed again and again in pursuing the duties of his profession.

It was evident that the system required more of habitual repose; and the errors of the constitution were to be treated by corrective medicine; its debility by supporting regimen. He desisted from walking exercise, and performed his usual avocations in a carriage. The black drop which had proved so useful, in the preceding case, did not well agree in this, producing head-ach. The local symptoms were usefully treated by stimulating embrocations. As internal medicines, the most decided benefit was obtained from the pilula hydrargyri, and decoctum sarsaparillæ. The refraining from fatiguing exercise appeared to be one of the most important points in the whole management of this case. He gradually recovered.



## CASE VI.

Chronic Rheumatism. — Nervous and tendinous structure chiefly affected. The constitution rather scrofulous. Very satisfactory amendment effected by regular treatment, and much benefit afforded by liquor arsenicalis.

A GENTLEMAN, aged 28, of slight form, of scrofulous diathesis, and of the nervous temperament, but enjoying good health till about two years before the illness which I am about to describe, during two months was troubled with a double quotidian ; and he also suffered great inconvenience from enlargement of the cervical glands, one of which suppurated. He took 30 drops of tincture of iodine, three times a day, for six weeks, without inconvenience ; but did not ascribe much benefit to it.

He was exposed to rain on a cold day, and remained two or three hours in wet clothes. On the following day he had sudden and severe pain in the right sciatic nerve, which soon extended to the glutæi muscles, so as to prevent the use of the limb. The other limb became affected in the same manner in the course of a few days, and afterwards



the rheumatism extended to various parts of the body, affecting different nerves, and the tendinous parts of several muscles.

When he first consulted me, he was debilitated and reduced in flesh; he complained of almost unabated sufferings, notwithstanding a year and a half had elapsed from the commencement of the rheumatism.

He had enjoyed intervals of amendment; but he had experienced repeated relapses from exposure to cold. He suffered much pain in the night, and in the sciatic nerves especially, to such a degree, that the use of narcotics was indispensable. He was so sensitive to changes of weather, and particularly to damp, that he felt the influence instantly, even in bed. He had cramps, tremors, and frequent palpitation of the heart. On examining the fascia lata of each thigh, I found numerous small tumors; his muscles generally were small and relaxed; his appetite and digestion were impaired; the bowels were torpid; the biliary secretion deficient; the urine was usually abundant and pale. He walked with the greatest difficulty, and in a peculiar rotatory manner.



In the first instance he had been cupped three times upon each hip, to the extent, each time, of eight ounces of blood, without eventual relief. He had taken mercury, opium, bark, guaicum, and colchicum, and had used the warm salt bath and vapor baths. He considered that colchicum had relieved more than any other medicine; but that its good effects were only temporary, and he found his stomach nauseated by its continuance.

I prescribed two grains of calomel every night for a week, to be followed in the morning by an aperient draught; in the middle of the day a draught with sulphate of quinine, as at page 307; and at night the use of acetate of morphine, as mentioned at page 106; from which he derived infinitely more relief and comfort than from any other form of opium. It tranquilised him, he said, most delightfully; whereas from tincture of opium the head-ach and feverish excitement which ensued for the first few hours were extremely distressing. He calculated, from the effects produced, that a grain of acetate of morphine was equal in power to half a drachm of tincture of opium. Plasters, composed of equal



parts of emplastrum opii, extract of belladonna, and soap cerate, were applied over the course of the sciatic nerves.

At the end of ten days, the plan of medicine was changed for the use of the following draught :  
—R Potassæ carbon. gr. xxvii. succ. citric. recentis ʒss Aquæ cinnamom. ʒvi. Mucil. G. Acaciæ ʒi. Syrupi tolutan. ʒi. gutt. nigr. gtt. iv. Liqueur Arsenicalis m. iv ad vi.—M.

Very decided benefit was afforded by this medicine, which was continued for one week, three times, and then for a fortnight, twice a day. He went into the country much improved in health and remarkably relieved from pain. He was directed to enter upon a course of sulphate of quinine, and then, if finding more aid from medicine necessary, of carbonate of iron. He was enjoined most particularly to make regular use of the shower bath.

Although I did not become acquainted with minute subsequent particulars, I had reason to know that this gentleman recovered a very tolerable state of health.

When the constitution falls under the dominion



of rheumatism, as in this case, it is useless and ill-judged to struggle against the disease, and more especially when that exertion is attended with exposure to every kind of weather. I have always found rheumatic symptoms much more permanent and untractable when affecting a person of scrofulous constitution. The iodine did not relieve the rheumatism in this case. The arsenic afforded more immediate and sensible benefit than any other medicine which had been tried.

I directed this patient that he should, at the beginning of winter, wear thin Welch flannel waistcoat and drawers next the skin, and over it chamois leather, and that, thus protected, he should avoid warm rooms. Those individuals who can choose the hour of sunshine for going abroad, would not do well to use so defensive a clothing; but it is an important protection to one who is called upon at all hours to expose himself in defiance of any weather.



## CASE VII.

Acute Rheumatism, followed by hemoptysis, and an abscess in the inferior part of the right lung. Many remarkable symptoms occurred, of which emphysema was the most conspicuous. The case ended fatally.

A GENTLEMAN, of middle age, usually enjoying good health, was attacked by acute rheumatism in May, after exposure to damp and the East wind. The severe symptoms subsided in about a month ; but both the upper and lower limbs were left affected with chronic pains and stiffness of the joints. Bleeding had not been found necessary in the treatment of the acute symptoms.

He went into the country at the end of June. He did not gain flesh, and continued to be afflicted with rheumatism in the knees, hands, and elbows. In July he had slight hemoptysis, with some cough and difficulty of breathing, and a pain at the point of the right shoulder blade. He had also rigors, but not followed by much heat of skin. The liver was torpid in its functions, the fæces being of a clay color ; the urine loaded with lateritious sediment. He was bled from the arm



twice, with decided relief, and afterwards was cupped once in the chest.

In August he went to the sea side ; and as he was much debilitated, and continued to lose flesh, he was ordered to have a supporting and indeed a full diet, tonic medicines, and the use of the warm bath. The cough now became more urgent than before, and was spasmodic. He quitted the coast with all his symptoms much aggravated, and when I first saw this patient in October, his appearance was that of one in the last stage of consumption. The cough was singularly spasmodic in its character, and occasionally threatened immediate suffocation. It frequently much resembled hooping cough. The expectorated matter was sometimes a ropy mucus, sometimes only a frothy saliva, and, occasionally, blood mixed with pus. The bowels were, for the most part, affected with diarrhœa ; the discharges seldom containing bile.

One morning, our attention was struck by a swollen appearance of the face ; and, on making a careful examination, I found that this swelling extended over the neck and upper part of the chest,



accompanied by a strong crepitation on pressure of the integuments. The cellular membrane was evidently emphysematous. The pulse, which had always exceeded 100, now increased in frequency to 130. The breathing became laborious ; and such was the difficulty of maintaining any position but the erect, that, after many fruitless trials to sit up in bed, supported by pillows, he could not be prevailed upon to quit his easy chair for the space of eight days. His favorite position was leaning on his right hand, with the other arm resting upon a pillow laid on the table. He carefully avoided speaking, and frequently had sensations as if he should die suddenly. On the second day from the occurrence of this emphysema, the face was swollen to a degree as if it would burst. The pulse increased to 150. Relief was afforded by digitalis, so that the pulse became moderated to 92, and then, the respiration also being better performed, the poor patient was able to keep in bed, supported almost erect.

The emphysema extended down to the lowest ribs, and all around the body.



Now, entirely new symptoms arose. The brain became affected with high irritation, and violent delirium ensued. The difficulty of breathing ceased, and the cough was only slight. The bowels, which had before required restraint, were now with difficulty affected by strong purgatives. The scalp was intensely hot, the pupils were much contracted, the pulse was variable, but sometimes subsided to between 80 and 90, without any influence from digitalis, which was not continued when the head became affected. The emphysema gradually abated ; and at last, the extravasated air could only be distinguished partially about the chest.

The remedies, which were attentively employed, relieved the urgent symptoms ; but the case, as may be supposed, ended fatally. The emphysema appeared first on the 10th of November, and death took place on the 9th of December.

I have avoided many details of the symptoms, which I think it would have been interesting to relate ; but such a narrative would not bear sufficiently on my present subject. I cannot, however, refrain from giving some account of the appear-



ances which were found on examination of the body.

*The head.*—Unusual looseness of the scalp. Remarkable depression of the temporal fossæ. Great thickness of the pericranium. During the section of the cranium, much escape of serous fluid; and, on the removal of the cranium, a further quantity, to appearance about two ounces. Strong adhesion between the dura mater and tunica arachnoides. Much serous fluid between the tunica arachnoides and pia mater. On the surface of the brain, particularly in the right hemisphere, very strong appearances of inflammation, and similar marks throughout the brain; but they were only superficial. The membranes were thickened. No serous accumulation in the ventricles. The cerebellum was quite free from appearance of inflammation. About another ounce of fluid was found at the basis of the brain, which had escaped from the membranes. There was no reason to believe that air was contained in the vessels of the brain.

*Abdominal cavity.*—The liver was larger than is natural; but, in other respects, it appeared to be



healthy. The spleen was perfectly sound, and the pancreas was in a natural state, as also the kidneys. The stomach and intestines were distended very much with air, but free from diseased appearance. The mesenteric glands were very remarkably diseased, a great number of them being entirely ossified ; and they were enlarged to a great size.

*The thorax.*—There was strong adhesion of the mediastinum to the sternum on each side, but most extensively on the right. The left lung appeared to be perfectly healthy. In the right cavity of the chest we collected about ten ounces of bloody serum. In disengaging the lung, we were restrained by the strong adhesion which it had formed at its posterior part. We found a vomica of small size had formed, and that it had ruptured ; having evidently an open communication with the posterior mediastinum, opposite the eighth or ninth dorsal vertebra ; for at that part was detected a lacerated aperture, the opening which had been produced by ulcerative action being enlarged by the act of removing the lung from its situation. The surface of the parietas of the abscess was marked by dense layers of



coagulable lymph. The lung was much loaded with air, extravasated in the cellular substance. It was free from tubercles. We did not discover any enlargement of the absorbent glands situated on the vertebræ. The trachea appeared to be free from disease.

*Observations.*—An analysis of one of the ossified glands gave, for the composition of the ossific matter, eleven parts of phosphate and one of carbonate of lime.

In this unfortunate case, rheumatism, although never quitting the patient, was the least part of the disease. The morbid condition of the mesenteric glands was probably the principal incipient error in the constitution. Dr. Baillie, who saw this gentleman in consultation with me, had never before met with a case of emphysema happening from a similar cause. We may presume that, in this case, the pressure of the abscess caused, by ulcerative absorption, a thinning of the pleura pulmonalis; and that the latter gave way from the violence of coughing.



## CASE VIII.

Rheumatic inflammatory irritation, apparently affecting the heart, relieved by active antiphlogistic treatment; and latterly, painful irritation without inflammation, relieved by a belladonna plaster.

A GENTLEMAN, aged thirty-three, well proportioned in figure, of the nervous temperament, received a severe fall in hunting in November. He was thrown forward to a considerable distance. He was not bled, and scarcely paid any attention to the accident. A few months after, he experienced an attack of rheumatism in the chest and arms.

I saw him first in June. He then complained of severe pain in the left scapula, of more difficulty in raising the right arm than the left, and occasionally of much oppression of the breathing. He had paroxysms of suffering, chiefly at night, attended with so severe and peculiar a pain in the left side of the chest, that he could fancy some one was plunging a heated knife into the flesh. This was followed by the sensation of being bound



down with cords. He dreaded going into bed, and reclined on the sofa, supported very high with pillows. Violent palpitation occurred. He sweated profusely from the agony of pain. The attack usually subsided about five in the morning, and then he procured a little unrefreshing sleep. I found the pulse 128, sharp and full. He did not complain of want of appetite, nor of indigestion, and he was living on rather a generous diet.

By means of full and repeated bleedings from the arm, cupping and blistering on the chest, the use of digitalis, of mercurial purgatives, a strictly abstemious diet, and entire repose, the acute symptoms were overcome in about a fortnight. The blood was invariably cupped and buffy in the greatest degree. A seton was afterwards applied over the region of the heart, and with decided advantage in its effects, after it had been some time established. He remained very sensible to changes of weather, and was affected with flying muscular pains, and with occasional sciatica in a severe degree. He was evidently in a rheumatic state.

He was relieved by medical treatment from



time to time, but did not lose the complaint; and in about two years from the commencement of the complaint, he suffered from extremely acute pain in the muscles of the right side of the chest, passing through to the back, and also affecting the shoulder joint and upper arm. He represented that sometimes the lancinating pains were almost as severe as those which he had experienced in the first instance. Wearied with taking medicine, he had recourse to the following plaster, spread on leather: *R* Extract belladonnæ, partem unam, emplastr. plumbi, partes duas, olei oliv. q. s. ut fiat emplastrum.

It acted, he said, like a charm. From the second day after its application, he almost lost all pain. I saw him a year after, and he had remained quite free from relapse.

In the origin of this illness there was doubtless inflammatory action; and, from the excessive palpitation, the peculiar nature of the pains, and the state of the circulation, I was apprehensive that the heart itself was affected seriously. Large bleeding from the arm gave immediate relief. The speedy and remarkable benefit derived from the



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belladonna plaster served to shew that the nerves were then affected with irritation, unaccompanied by inflammation.

CASE IX.

Chronic Rheumatism.—Various textures affected. Very satisfactory results from a blended plan of internal and external treatment.

AN UNMARRIED LADY, aged thirty-two, of slight form and of delicate constitution, had suffered from rheumatism, either in the subacute or chronic form, during four years, when I was first consulted. She mentioned that previously to having rheumatism she was subject to troublesome cough, from which she had become free. Scarcely any one of the joints in the body was free either from pain, or tenderness, or stiffness; and, in different situations, the ligaments, the bursæ, the tendons and the aponeuroses, and the nerves, were evidently affected. At the knees, wrists, and elbows, there was considerable synovial accumulation; at the ankle joints there was enlargement from the thickening of the ligaments. Both at the



bend of the arm and in the ham there was a great tendency to tendinous contraction. She was very lame; her rest at night was much disturbed by pain; she was reduced in flesh; debilitated; and perspired on the slightest exertion, without relief to the rheumatism, but rather on the contrary. She was extremely sensitive to changes of weather, and especially to damp. She preferred a cold state of atmosphere, when dry, to the heat of summer, which caused her to feel languid and weak, and in that state she experienced more of rheumatism. At a former period she had experienced an attack of jaundice, and she felt herself usually much affected with bilious symptoms.

This patient received very material benefit from a blended plan of treatment; which I shall describe in the following summary manner. Internal medicines—Alterative aperient pills, with the occasional use of a mixture of tartrate of potash, infusions of senna and camomile, and compound tincture of cardamoms; at night, pills with extract of colchicum and Dover's powder; sarsaparilla, and afterwards sulphate of quinine. Externally—the use of the evaporating lotion with



alcohol, &c. liniments; the vapor douche to the tendons, which were getting contracted; friction and shampooing, with bandages to the ankles, knees, and wrists. Afterwards this lady visited Leamington and then Buxton. From the baths of Buxton she received great improvement, as also from the subsequent use of the shower bath.

In this case, the rheumatic diathesis was becoming so absolutely established, that, had not a decided plan of treatment been adopted, it is fair to suppose that the use of the limbs would have been lost, and very probably even the constitution itself would gradually have sunk under the harassing influence of the disorder.

This is an example of chronic rheumatism which frequently comes under my observation; but it does not so commonly happen to be united with such great delicacy of constitution as affected this lady.



## CASE X.

Chronic Rheumatism, benefited by Buxton after an unsuccessful employment of the Bath waters.—Ling-liver oil, guaicum, and colchicum, all less useful than sulphate of quinine and other means.

A GENTLEMAN, aged thirty-three, slight in form, was attacked by rheumatism in the spring of 1824, after the concurrent circumstances of great fatigue and sleeping in a damp bed. He was affected in the feet, knees, hips, and in the joints of the vertebræ. He lost the use of his limbs for a year. He got gradually better, but continued much an invalid, with rheumatic pain and stiffness, and extreme susceptibility to changes of weather, damp especially, during the second year. For six months afterwards he enjoyed considerable amendment, and then, from accidental exposure, suffered a fresh attack of rheumatism chiefly in the same parts as before.

I saw this gentleman at Buxton, when he was affected with chronic symptoms. He related that he had taken the volatile tincture of guaicum for a great continuance, without much benefit; 20



drops of the wine of colchicum three times a day till he had consumed four ounces, which created constant nausea, but not vomiting, irritated the bowels very much, and did not permanently relieve the rheumatism. For a whole year he took an ounce of ling-liver oil every morning early. He thought it increased his appetite and acted favorably as an aperient, but did not sensibly relieve his rheumatic complaint; he gave a full trial to the internal and external use of the Bath waters, without deriving much benefit. Galvanism was applied down the spine, and to other parts; but it appeared to be injurious, by increasing pain and irritation.

This patient received a cure from a course of bathing at Buxton, from sulphate of quinine in draughts, extract of colchicum, with Dover's powder, in pills; a proper attention to the bowels, with a regulated diet, and the use of frictions and bandages.



CASE XI.

Chronic Rheumatism.—Similar means of treatment as in the preceding case employed with success. Pumping with the Buxton water particularly useful.

A GENTLEMAN, aged sixty-eight, visited Buxton with the remains of sub-acute rheumatism in the wrists, knees, and ankles, and each tendo Achillis. In the wrists and knees there was much bursal distension; the sheaths of the tendons in the ham, and of each tendo Achillis, were very full; and, from this condition of parts, he was very lame, suffered pains at night, and cramps particularly affecting the ham strings, usually disturbing him in the first half-hour of sleep. In addition to the treatment mentioned in the preceding case, pumping on the weakened parts, together with friction and shampooing, and bandages, was used with marked benefit.

CASE XII.

Chronic Rheumatism, converted into the acute by the indiscreet mode of using the Buxton bath, and too exciting a regimen. The acute symptoms being removed, the bath afterwards used with success.

A GENTLEMAN, aged forty-four, stout in form,



visited Buxton, with chronic rheumatism affecting the hands, knees, and ankles, the sequel of an acute attack. He was of full habit, was living generously, took active exercise, and employed the natural bath and pumping every day, to the fullest extent. By such injudicious proceeding, he brought on an acute attack of rheumatism, in which the symptoms were sufficiently urgent to produce delirium. By prompt antiphlogistic treatment, the lancet being used freely on the first and second day, all inflammatory action was removed; and afterwards premising the use of the tepid bath, he had recourse to the natural baths, more cautiously than before, and received a cure.

This was a striking example of the necessity of preparing the constitution for the employment of the Buxton bath, of using it with discretion, and of joining with it a proper regimen.

#### CASE XIII.

Chronic Rheumatism.—So much associated with chronic hepatitis that the rheumatic symptoms did not yield permanently; and, from the want of more preparation, the waters of Buxton tried without much advantage.

A LADY, aged forty-six, of the bilious diathesis,



and for many years suffering from chronic hepatitis, was attacked in October with sub-acute rheumatism in the wrists, hands, knees, and ankles. She had experienced an attack of acute rheumatism nine years previously ; but, in the interval between that period and October just mentioned, had been free from that complaint, with the exception of occasional sciatica.

She visited Buxton in September of the following year, having first made trial of the waters of Harrowgate, which she could not continue to drink on account of much sickness which they produced.

I found this patient considerably jaundiced ; and requiring, therefore, suitable preparation before she could use the natural bath with any prospect of advantage. Indeed, she had labored under chronic hepatitis for many years. Her rheumatic symptoms varied exceedingly according to the dampness or fineness of the day ; being at one time completely lame, and at another able to walk with considerable ease. She could not use warm bathing without being rendered very faint and weak. She took early advantage of her amendment from the bilious symptoms, and made trial of



the natural bath, which proved extremely refreshing ; and she was sanguine in her hopes that it would effect a cure. But she experienced repeated relapses from her susceptibility to atmospherical changes, and from the frequent derangement of the liver.

This patient visited Buxton too late in the season, and required a much longer course of preparation than the opportunity allowed.

It too frequently happens, that invalids visit this and other watering places under circumstances quite unfit for the employment of the respective waters ; but, indiscreetly resolved not to be frustrated in their object, they proceed hastily to the springs, which would be those of health, if wisely approached ; and, without advice, they pursue their own measures to the aggravation, instead of the relief, of their disease.

#### CASE XIV.

Chronic Rheumatism, rendered sub-acute from the premature use of the Buxton bath, and particularly the pumping. After suitable preparatory treatment, recourse had to the former means with success.

A LADY, aged thirty, of delicate form, visited



Buxton, with symptoms of chronic rheumatism, the consequence of an acute attack two years before. The complaint had induced much irritability of the constitution; and she described herself as being constantly an invalid, with painful symptoms of rheumatism, and general debility. She had a quick pulse, perspired very much on slight exertion, and suffered more pain and general feeling of illness in hot weather, than in cold, provided that the atmosphere was not damp, and that the wind was neither in the north nor the east. Her appetite and digestion were not strong; but I could not detect any remarkable state of error in the biliary system. The bursal textures at each knee were much enlarged, and she had great difficulty in walking. Each shoulder, but the right chiefly, was affected in the ligamentous structure. The sheaths of the tendons at the wrist, were full, and the fingers of each hand were distorted.

This lady had used the natural bath unsuccessfully. She was chilly immediately after immersion, and remained so throughout the day. She was in too weak a state of constitution to



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allow of a proper re-action. She had been imprudent in desiring the use of the pump to the affected parts. Increased tenderness and aching were the consequence ; and, at the knees, even sub-acute inflammation was produced.

I directed the following pills at bed time, for three nights : R Hydr. submur. pulv. Jacob.  $\text{āā}$  gr. i. extr. papaveris, gr. iv. M. et fiant pilulæ ii ; on each succeeding morning, the draught p. 92, without antimony ; and a small dose of sulphate of quinine in the middle of the day.

The parts affected with rheumatism were treated with the evaporating lotion. Each other day she used a tepid bath for ten minutes, with comfort and advantage. By a short perseverance in such treatment, the mischief which had been produced was removed. She was then put on full doses of quinine with sulphuric acid ; and her strength becoming much improved, she had recourse again to the natural bath, and the moderate use of the pump, with the best results. Friction, shampooing, liniments, and bandages, comprehended the plan of local treatment ; and I had great satisfaction in witnessing, finally, as much



of a cure as could be performed in a case attended with some irremediable disorganisation of parts.

In this example we are shewn the necessity of investigating the circumstances affecting the constitution, before the patient should be permitted to enter on the use of the natural bath ; and proper caution, too apt to be neglected in these cases, should be observed in the application of so strong a stimulus as the pumping.

The bandages proved particularly useful in this case, applied to the knees, wrists, and fingers ; and, in the first instance, they were kept wetted with the lotion. Pressure, in this way applied, acts very favorably on the bursæ and tendinous sheaths, and evidently assists absorption. The patient speaks with satisfaction of the support thus afforded to the joints, and of the relief from lameness which attends this condition of the synovial textures.



## CASE XV.

Chronic Rheumatism; with Gonorrhœa, first virulent and afterwards simple; and with ophthalmia. The recovery tedious, but finally effected by means of correctives, and the use of the Buxton bath.

A GENTLEMAN, aged twenty-five, of strong make, had been attacked, four years previously to my being consulted, with rheumatism in the feet and knees. Ten days before, he had gonorrhœa virulenta; but the discharge from the urethra ceased on the occurrence of the rheumatism. Soon after, the eyes became inflamed, and there was much secretion of mucus from the conjunctive membrane. His recovery was tedious.

A year after, he had gonorrhœa, respecting the nature of which he was in doubt. He took cubebs. The discharge ceased in ten days; and immediately, rheumatism of the intercostal muscles supervened; and afterwards, as he stated, in most of the joints. He remained ill a long time. In the subsequent two years and a half, he had three more attacks. In the third, simple gonor-



rhœa, and rheumatism of the knees and ankles, occurred at the same time. In the fourth, simple gonorrhœa (he was certain on this point), the affection of the eyes, and then of the limbs, took place in succession. In the fifth attack, I saw the patient.

Urethral discharge, with ardor urinæ and chordee, had commenced ten days before the appearance of rheumatism. This certainly appeared to be venereal. He had used an injection, and taken cubebs, before he consulted me. The discharge did not cease. I referred him to a surgeon for this part of his case, who detected a stricture. I found much bursal swelling at the knee and the wrist, and the tendons at the feet also much enlarged. He was quite lame. He suffered pain in the wrists and feet, but not severely.

For about three weeks, a course was entered upon of alterative pills at night, with a draught as at p. 92 without antimony every morning, and in the middle of the day the sarsaparilla mixture. The rheumatic parts were treated with bandages and the evaporating lotion.

The next stage of treatment was the full use



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of quinine, as at p. 328, with the aperient pills occasionally ; and, locally, friction with liniments, and the application of bandages. The constitution had become so much enfeebled by repeated attacks, that it was important to enjoin a long-continued attention in employing all the means calculated to restore its powers. Finally, he took sub-carbonate of iron, and went to Buxton, doing full justice to the use of the baths, from which he derived the greatest advantage.

As I am desirous of avoiding unnecessary prolixity, I shall claim the indulgence of the professional reader in allowing me to state many of my succeeding cases in the most concise manner possible ; confining myself to the mention of a few particular facts, with occasional comments.

#### CASE XVI.

Chronic Rheumatism, existing with gonorrhœa and ophthalmia. The cure very tedious, but finally accomplished by a systematic plan of treatment, concluding with the use of the Buxton bath.

A GENTLEMAN, aged twenty-eight, slight, and of delicate constitution, in his first attack of rheu-



matism, was affected in the left ankle and left knee. In the second, inflammation of the eyes, with mucous discharge, took place; and, in a week after, both ankles and both knees in succession were seized with rheumatism; the inflammation of the eyes abating, but not ceasing. In the third attack, in which only I saw the patient, after he had been ill two months, he became infected with gonorrhœa virulenta. Then the knees became swollen, next the eyes were inflamed, and I found these morbid affections existing together, with an extension of the rheumatism to the feet, the hips, and shoulders. The synovial membranes were chiefly affected; the ligaments less severely; and occasionally each sciatic nerve.

The case was extremely tedious; but a cure was finally accomplished. The treatment, from first to last, according to the symptoms, consisted in the use of alteratives with aperients, sedatives with colchicum, sarsaparilla, quinine, and regulated diet; in conjunction with the employment of leeches, fomentations, lotions, liniments, bandages, and the Buxton bath.



## CASE XVII.

Chronic Rheumatism, succeeding to the acute, very tedious in its course, and accompanied by great irritation of the kidneys and urethra. Similar treatment to that described in the preceding case proved successful.

A GENTLEMAN, aged fifty-six, of florid countenance, and healthy appearance, consulted me when convalescent from the illness which I shall presently describe.

In the year 1810 he had lumbago and some general rheumatism, without fever; for which he visited Buxton with such advantage, that he remained well for many years. In 1823 he contracted gonorrhœa, without any consequent affection of the limbs. In November 1825 he had again gonorrhœa, which he considered to be simple. The kidneys were painfully affected. Soon after, rheumatism seized the knees, ankles, and hips, loins, and chest, in succession; the urethral discharge continuing unabated. He suffered great pain in all the affected parts, with profuse perspirations, and great debility. He was confined to bed entirely for two months, with a highly distressing



train of symptoms, and remained in a weak and suffering state through the summer.

I first saw this patient in autumn. The bursæ at the knees and the sheaths of the tendons at the feet were then much distended and affected with sub-acute inflammation. This relapse appeared to have been excited by the injudicious employment of a bougie for a stricture, which had excited high symptoms of irritation in the urethra and bladder. The treatment which I prescribed consisted in the successive use of alteratives, the colchicum aperient draught, sarsaparilla, cubebs joined with powdered colchicum, lotion, bandages, liniments, frictions, and finally the Buxton waters.

The recovery was most satisfactory, and afterwards the stricture was carefully treated by the bougie without any untoward occurrence.

It appears, from these cases, that individuals of certain constitutions are prone to rheumatic affection of the limbs, if they contract gonorrhœa; and very commonly the eyes also become affected with fibrous or membranous inflammation, or both.



These affections sometimes alternate, the one appearing to supersede the other ; but at other times they exist together. In a first illness of this kind, we may conclude almost with certainty that the gonorrhœa proceeds from infection. Afterwards, and especially if there be a stricture, it may, probably, be simple ; but this should always be held suspicious. These cases are always exceedingly tedious, even under the best means of treatment. Usually, high constitutional irritation is produced, and permanent debility and languor ensue, together with pain and a sort of weakness in the bursal, tendinous, and other textures. The same kind of complicated disease occurs to gouty persons ; and I know no cases in which the diagnosis between gout and rheumatism is so difficult. The discrimination however is not very important, as the principles of treatment are the same, whether the patient be gouty or rheumatic.

The use of bougies should be carefully avoided, until the limbs are cured, and the constitutional health restored. Every prudence should be used not to contract gonorrhœa ; for it is almost a certain



consequence that the limbs will become affected, and, very probably, that ophthalmia will take place also.

#### CASE XVIII.

Chronic Rheumatism, proceeding to the state of incurable disorganisation of the articular textures. In such cases, early treatment of the utmost importance. Opportunity lost in cases of this nature cannot be recovered.

A LADY, aged fifty-two, corpulent, plethoric, but of the nervous temperament, and of a scrofulous diathesis, was attacked with rheumatism in the left knee, and in the left sciatic nerve, in 1819. In the following year a more general seizure occurred, and up to the autumn of 1826, when I first saw this patient, there was never any freedom from rheumatism either in the sub-acute or chronic form, and scarcely any part of the body, externally, escaped the disease. I found her entirely deprived of the use of the limbs. The knees were much swollen, without any pitting of the integuments. The enlargement was chiefly bursal; but, from the indurated state of the integuments, I judged that there was effusion of coagulable lymph into the



cellular membrane. On attempting to move the joint, a severe sense of soreness was experienced, and the grating noise was so strong as to induce me to believe that the cartilages had lost their smooth surface. It was almost a state of perfect ankylosis. The same description was mostly applicable to the joints of the ankles, the wrists, the elbows, and the shoulders. The fingers were curiously distorted, and drawn in various directions. I concluded that, in some of the phalanges, the ligaments were partially absorbed; for there was absolute dislocation.

I have seen many of these unfortunate cases in their last, and it must be expected that I should add, in their incurable stage. The progress of the disease is so inveterate, that I am not sure of the propriety of impeaching the treatment which has been so unsuccessfully used in any instance. But certainly it is in the commencement of the disease that the utmost care should be taken to remove the chronic inflammation, which insidiously works its way to the disorganisation of so many important textures. Amongst the most appropriate remedies, I should enumerate, alteratives,



aperients, the careful trial of colchicum, and the use of sarsaparilla, and quinine; in methodical succession.

But local and external treatment is of the greatest importance, including the employment of leeches, lotions, blisters, liniments, frictions, bandages, and various baths, especially the vapor and Buxton; and in some circumstances the shower bath.

In several of the worst cases which have come under my observation, the constitution has been unequivocally scrofulous. In these examples, two of them females, and the other male, the disease was exceedingly painful until it had proceeded to the extent of producing ankylosis of the affected joints, when, for the most part, there appeared to be a termination of active suffering, and the patients became resigned to a state of complete helplessness of limbs, abandoning even all desire of trying further remedies. They were affected with general rheumatic sensations in changeable and especially damp weather; but otherwise the general functions were healthy and regular.

Cases of the nature which I have here endea-



voured to describe, happen both from gout and rheumatism, but much more frequently, according to my observation, from the latter disease.

#### CASE XIX.

**Chronic Rheumatism.** The synovial membranes exclusively affected. Sulphur useful; and great benefit afforded by the general and local treatment adopted.

A LADY, of middle age, delicate in constitution, was attacked by rheumatism in the knees, wrists, and elbows; the synovial membranes were distinctly affected. When I first saw this patient, she had suffered from the complaint, more or less constantly, for three or four years. Occasionally she experienced pain; but she was more inconvenienced by the disability of the joints; the knees particularly. She had received great benefit from the use of precipitated sulphur, taken in the dose of half a drachm once or twice every day, making the course of the medicine a month from time to time. It was in one of the relapses that I saw the patient.

I directed the continuance of the sulphur each



morning early, and, twice in the day, the sulphate of quinine draught, page 328 ; for when the synovial membranes are affected in this manner, I usually find the constitution weak and irritable, and requiring to be supported. A bandage over the affected part, kept wetted with an evaporating lotion, proved particularly useful in this case.

The synovial membranes, in these cases, are more susceptible of inflammatory irritation than might be expected, from the freedom with which the parts allow of being handled. I have seen this proved by the occurrence of painful inflammation ensuing from the imprudent use of friction, and especially if joined with the application of liniments too stimulating in their composition. Careful friction and shampooing are much to be recommended, together with the use of lubricating or stimulating liniments.

The Buxton bath proves certainly useful in this form of rheumatism ; and the pumping in a short time tends to diminish the bursal swellings and strengthen the joint ; but it is a remedy which requires discreet management.



## CASE XX.

Chronic Rheumatism, chiefly of the head. Together with general treatment, the application of a liniment afforded great benefit.

A COACHMAN, aged forty-five, seemingly of strong constitution, was seized with severe shooting pains in the left eye, without appearance of inflammation. They were not constant. The sight was impaired during the continuance of the pain. The whole head next became affected; but most severely the temporal muscles. The sensations were lancinating and piercing; and, sometimes, as if the scalp was being torn. At one time, as if cold, at another as if hot water was poured over the head; the muscles of the neck being also affected. The scalp was tender on being pressed; and exquisitely so after a paroxysm of pain. There was also much general rheumatism affecting the muscles and nerves, and particularly the sciatic nerves. The complaint had existed many months, when I first saw the patient. He had not used any regular treatment. The di-



gestive organs were in an unhealthy state ; the tongue being much furred, the complexion yellowish, the secretions, alvine and urinary, much vitiated.

Alteratives and aperients, with extract of colchicum and Dover's powder, served to remove the general symptoms ; and the most marked relief was afforded to the head by the use of the liniment page 328, rubbed in night and morning ; so much so, that the man himself considered it to have been the chief source of his cure.

The diagnosis between rheumatic and nervous head-ach is sometimes difficult ; but these two forms of complaint occasionally affect the same patient at different times ; and instruction may be taken from the description which will be offered by an intelligent person of the peculiar nature of each kind of pain. The nervous head-ach is the most oppressive ; and, whether it occupy the whole or the half of the head, it seems to seize more deeply than rheumatism, and more affects the sensorium. There is more sympathy of the stomach with it.

The rheumatic head-ach is usually attended



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with pains of the same nature in other parts, and particularly in the muscles of the neck ; sometimes in the eyes, ears, teeth, or different parts of the face ; and is much more remarkably influenced by atmospherical changes, than the nervous head-ach.

CASE XXI.

Chronic Rheumatism of the shoulder joint. A cure effected by active local treatment and the use of the shower bath.

A LADY, aged fifty, had suffered during several months from rheumatism of the shoulder joint. The pain had recently become much aggravated from exposure to cold. She could scarcely move the arm. There was fulness about the joint, rather than positive swelling. The soreness on pressure was very great. The pain was deep-seated, and seemingly in the joint, but also at the insertion of the deltoid muscle. It deprived her of sleep at night. Sometimes it was a burning pain, and at other times gnawing. The general



health was not much disturbed, although it must be observed she perspired much too freely.

The treatment consisted in the repeated application of leeches, evaporating lotions, blisters, plasters consisting of emplastrum opii and extract of belladonna, frictions, at first with camphorated oil, and then with the liniment p. 328; and, lastly, the use of the shower bath, in conjunction with the sulphate of quinine.

In the insulated forms of chronic rheumatism, the shoulder joint is more frequently affected than any other part; and it often proves a very tedious and intractable affection. Indeed, if it be long neglected, it is probable that a perfect cure cannot be obtained; yet I have witnessed recovery under very unpromising circumstances. Great perseverance is required in the means of treatment; and they must be nicely adapted to the changing condition of the parts.

The knee joints are sometimes affected in a more severe and distinct manner than other parts. I will offer two examples.



## CASE XXII.

Chronic Rheumatism, affecting the frame in a great degree generally; but most severely and permanently the left knee. A cure effected by active local treatment, assisted by the internal use of mercury and other medicines.

A FARMER, aged forty-two, tall and slight, was attacked with rheumatism in the feet in February 1823. The perspiration in the feet, which with him was usually considerable, had ceased just before. From that period to May 1826 he suffered from rheumatism constantly, more or less, in the right and left shoulder considerably, but most in the knees. In 1825 he was at Buxton for three weeks. The stimulus of pumping on the parts was used with too much freedom, and proved injurious, especially to the left knee. The general bathing was useful. When I saw the patient in May 1826, he complained of pain in the shoulders and arms; but his chief suffering was from the left knee, which at first sight had almost the appearance of white swelling. The



action of the joint was severely painful. He was quite a barometer in regard to weather, even in his general feelings; but, in the knee especially, he experienced great aggravation of pain in a damp atmosphere, and when the wind was north or east. His complexion was yellow, and his digestive organs were much disordered.

By means of mercury, in purgative and alterative doses, colchicum, sarsaparilla, and regulated diet, with local treatment by leeches, evaporating lotions, and repeated blisters, a cure was effected in rather more than three months.

#### CASE XXIII.

Chronic Rheumatism; as in the last case, attaching itself most to one knee. The douche of vapor, and gentle frictions, useful. Much peculiarity of constitution in this patient. Event of the case not known.

A GENTLEMAN, aged thirty, tall and slight, when under the severe influence of mercury, used to excess, was exposed to the land wind in India during a state of perspiration; which, he said, caused immediate dryness and parching of the



skin. An attack of rheumatism was the consequence. The neck, arms, wrists, sciatic nerves, and knees, were all affected. Palpitation of the heart was a very troublesome symptom of his indisposition. He used warm salt baths with some relief. Sarsaparilla had been useful. Quinine disagreed, and, he said, had aggravated the palpitation. When I first saw him, he had been ill upwards of a year. As in the last case, one knee was much enlarged, and so tender and painful that he could not walk. The ham strings were rigid and contracted. There was great constitutional debility. Perspiration was easily induced, with increased nervousness, and also more feelings of rheumatism, as a seeming consequence. The digestive organs appeared to be in a healthy condition.

I had not the opportunity of knowing the event in this case ; but I can state that early and decided benefit was derived from the daily employment of a douche of vapor to the knee, and gentle friction with camphorated oil. He wore over the knee a plaster of opium and soap cerate. His constitutional symptoms were relieved by the use of



pills, consisting of extracts of colchicum and of conium, and carbonate of ammonia, with the following draught taken with the addition of lemon juice in effervescence: R Potassæ carbon. gr. xxvii. decoct. cinchon.\* 3x. tinct. aurant. syrupi aurant. aa ʒi. M. Opium in all its forms disagreed with this patient. He related that he had used leeches repeatedly, and with a good effect when inflammatory action was considerable; but latterly he thought they had only served to weaken the knee. Several blisters had been applied; but he dreaded the repetition of this remedy, as they produced very painful local irritation, and excited a great deal of general fever; so extremely irritable was his habit.

In certain constitutions, rheumatism appears to pursue an inveterate course, in defiance of the usual

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\* The bark in this light form agreed perfectly. Admirable in its general effects as we must consider the sulphate of quinine to be, we yet find that it sometimes disagrees with the stomach, and seems to irritate, when the other forms of the bark will succeed. In these instances, it may be considered that the active principle of the cinchona is too much concentrated to suit the nerves of the stomach in certain individuals.



means of treatment ; affecting, in some unfortunate instances, almost every joint of the body in its severe progress ; and, in others, finally attaching itself chiefly, if not exclusively, to some particular part, as I have already shewn with regard to the shoulder and the knee joints. I have further illustration of this kind to offer in speaking of rheumatism of the neck and loins.

Scarcely any form of rheumatic attack yields to moderate means of treatment more readily than that which takes the familiar name of stiff neck ; but it occasionally happens that this affection, from the frequency of its recurrence, and still more from its intensity, fixes itself so permanently, as to be productive of the most distressing consequences.

I know one gentleman, whose neck is so entirely stiffened, that he can scarcely move his head in any direction. The muscles are in a state of the utmost rigidity, and, when examined by the hand, convey the idea of wood more than of flesh.

In another case, the head of the patient is bent forward considerably. His chief inconve-



nience arises from the immoveableness of the head ; and he states that this rigidity resulted very gradually from repeated attacks of rheumatism of the neck, to which he admits he did not pay sufficient attention ; and that he too much yielded to that action of the muscles which at the time was attended with the least pain.

Both these cases had been of several years standing, and had become incurable. I shall relate, rather more at length, the particulars of another instance of the kind.

#### CASE XXIV.

Chronic Rheumatism ; in the first instance affecting various parts of the body, but finally fixing permanently, and with great severity, in the muscles of the neck. The disease so confirmed as to admit only of palliative treatment.

A stout looking man, aged fifty, in the middle station of life, consulted me on account of a completely stiffened state of the muscles of the neck, rendering it impossible for him to move his head in any direction. He suffered aching pain in the neck in changeable weather ; but otherwise his chief inconvenience arose from the awkward



and truly distressing fixedness of the head. I obtained from him the following account of his case.

In the winter of 1814 he was exposed to wet and cold, and suffered from catarrhal fever in consequence, but not from rheumatism. In the winter following, from a similar cause, he was seized with pain in the hip and loins. He took medicines and used the warm bath, and recovered. In a few months after, he had a fresh attack in the same parts, with an extension of the symptoms to the head and neck. Was better in the summer months ; but in the autumn suffered more than ever in the hips, loins, left side, right shoulder, and head, with great stiffness of the neck. He was advised by a friend, who had found the treatment successful in his own case, to affuse the head and body with cold water every morning on first quitting the bed. He pursued the plan for two months, without success. At this period, he perspired excessively during the night, and found his strength fail. He consulted an eminent surgeon, who prescribed active medicines, without any relief to the rheumatism ; which, on the contrary, in-



creased so much, that his chin fell forward on his breast, the head was fixed, and he could not rise from his chair without assistance. In bed, on attempting to turn, he was affected with violent spasmodic shootings in the head ; and with involuntary and most painful drawing up of the legs. Next, plasters were applied to the affected parts ; and, soon after, he used warm sea baths ; but all without relief to the rheumatism, although the general health was improved by a residence at the sea side. He breathed oxygen gas for a considerable time, and also used electricity ; but without advantage. Afterwards, until the time of my seeing him, he merely used friction with oil and harts-horn.

Some benefit was afforded to this unfortunate patient by the daily use of a douche of vapor, and, immediately afterwards, by friction for an hour with camphorated oil.

In the beginning of such cases, treatment should be used as for inflammation. Leeches should be applied repeatedly ; fomentations, and emollient poultices, together with the use of suitable internal medicines.



I do not doubt that judicious and attentive management would prevent the consequences of neglect which I have represented.

Although the rheumatic form of complaint, called lumbago, is usually not of very long duration, and is curable by ordinary means of treatment, yet sometimes it proves very chronic and difficult to be remedied. It may affect chiefly the aponeurotic covering of the muscles, or the muscles themselves; but mostly in the tendinous parts of their structure; or the lumbar or sacral nerves: in which latter case, the pain is deeper seated, is attended with more constitutional sympathy, and with more or less of painful irritation in one or both sciatic nerves. The ligaments of the spine, and those which connect the bones of the pelvis, may be affected with rheumatism; but to such form of complaint, the term lumbago is not applicable.

In gouty persons, a seizure of lumbago is almost invariably followed, in the course of a few days, by gout in the lower limbs, which often supersedes the former complaint.

Our means of treatment, and our prognosis of



the probable duration of the disorder, must depend not only on the nature of the textures which are affected, but on the particular state of constitution which accompanies the local affection.

Lumbago is sometimes joined with nephritic irritation. I remember one case, in which this complication was remarkably urgent. Together with the ordinary symptoms of gravel, there was frequent re-tractio testium ; and, during the night, priapismus occurred in a distressing manner, subsiding when the patient could succeed in discharging the contents of the bladder. This gentleman eventually obtained a perfect recovery, by means of systematic treatment, both as respected internal medicines, and the employment, first of warm sea baths, and, lastly, of the Buxton bath, with the use of the pump.

I shall offer a few examples of Chronic Lumbago.

#### CASE I.

Chronic Lumbago, arising from straining the muscles in hunting, and from exposure to wet. The case very tedious; remedies for a long time unsuccessful. The shower bath and tonics eventually useful.

A GENTLEMAN, aged twenty-four, of healthy



appearance, was attacked with lumbago in November 1822, in two hours after getting wet in crossing a deep brook in hunting. He recovered from the severe symptoms in a short time, but continued to suffer from stiffness and pain in the muscles of the hips till the approach of summer. A second attack took place in September 1823, after exposure to wet in shooting grouse on the mountains. The symptoms were acute for a short time, but passed into the chronic form. The pain was seated across the lowest part of the loins, and he had great difficulty in rising, and in laying his legs upon a chair. In October a course of electricity (by sparks) was tried, without advantage. In November twelve ounces of blood were taken away by cupping, which did not relieve the pain, and increased the feeling of weakness in the back.

In December, imprudently he hunted, and strained the muscles of the back, so as to become confined to his bed. He was cupped again without relief. Warm plasters were used, guaicum and other medicines were taken, and then a course of warm sea-bathing was tried, all unsuccessfully. From January to May 1824, there was never any



intermission of pain, although it changed its seat, being either high up in the loins, or quite in the middle as if in the spine, or on each side towards the hips. Coughing and sneezing produced violent pain. The remedies tried were various liniments, tartar emetic ointment repeatedly, so as to keep up a constant suppuration of pustules for five weeks, and then, no amendment being obtained, a belladonna plaster, which appeared to aggravate the pain.

In June he had as much harassing pain and more stiffness than before. Moxa was applied freely, but with no better success ; afterwards stimulating plasters ; but the patient said he always found himself worse after the employment of any irritating remedy. The sense of oppression and pain over the sacrum was very great. He took turpentine in moderate doses ; but it produced great irritation in the neck of the bladder, and did not relieve the rheumatism. He was desired to take complete rest in bed, or on the sofa. Lying on the face was the easiest position, and stooping the most difficult action. In July he went to the coast, and tried bathing in the open sea ; but this added



severely to the pain. Again he applied extract of belladonna, not much diluted, but without any relief. The shower-bath was used for a short time. In July and August he never left the horizontal position. A large blister was applied, which only had the effect of causing, as he considered, the pain a little to shift its situation.

In September this gentleman went to Buxton, where I saw him for the first time.

I found him suffering from constant aching pain across the loins and around the hips. The muscles were rather tender if pressed strongly; but no uneasiness was expressed when the most free examination was made along the spinal column. He had jactitation of the limbs at night, and cramps, which even affected him during the day, particularly in the lumbar muscles. He described that he had the feeling of a heavy weight on each side of the loins. His rest at night was much disturbed, and he was in a highly nervous state of constitution.

I first directed my attention to the correction of the state of the digestive organs, and the medicines taken for this purpose were used in conjunction



with the tepid bath. Afterwards the natural bath was regularly employed, and a course, first of sulphate of quinine, and next of carbonate of iron, was pursued. A belt constructed in a particular manner by my direction, so as to give a very firm support to the loins, was used with great advantage to the patient's comfort. Friction and shampooing were employed ; but if this treatment was carried a little beyond moderation, pain and irritation became much increased.

The general strength improved very much from these measures, and the local complaint was lessened, but not removed. On quitting Buxton, a tepid shower-bath was resorted to with decided benefit, and after a little time was used cold. I know that this gentleman almost recovered from his complaint in the course of two or three months after this period ; but I have not had the opportunity of hearing any late particulars.

#### CASE II.

Chronic Lumbago, the predisposing and exciting causes the same as in the last case. The Buxton bath and pumping proved serviceable.

A GENTLEMAN, aged 26, of remarkably healthy



appearance, was attacked with lumbago in November 1821, after being exposed to cold and wet in hunting. His habits being active, he could not submit to confinement and care ; and suffered, in consequence, no less than nine relapses in the first year. He first gave up the amusement of shooting ; but finding that every exposure of continuance to a cold and damp atmosphere brought with it an attack of lumbago, he relinquished the sports of the field altogether. However, in the spring of 1826, he got accidentally wet, which was immediately followed by a severe seizure, and its effects continued in the chronic form till August, when I first saw this gentleman at Buxton. The symptoms then were more troublesome than urgent. He had usually more or less of dull aching pain, and much sense of weakness in the loins, so that he could scarcely take any exercise without aggravating the symptoms.

The natural bath and pumping rendered material service in this case. Also friction and shampooing, the use of the embrocation, p. 328, sulphate of quinine, and the wearing of the belt.

I directed that he should, on quitting Buxton,



use the cold shower bath, if convenient ; or, otherwise, have the loins sponged with cold salt and water daily, the skin to be wiped carefully dry, and diligent friction then to be used.

### CASE III.

Chronic Debility, from the loins downwards, the injury having been produced by a fall in hunting ; lumbago one of the consequences. The Buxton bath, &c. remarkably useful in this case.

A GENTLEMAN, aged thirty-eight, of very active habits, and healthy, received a most severe fall in hunting, in 1822. The chief force of the concussion appeared to be in the back. He was taken up senseless, and remained ill a considerable time. He was not bled. Mercurial medicine was administered to him freely ; and he states that he took cold while under its influence. For the space of some months he had scarcely the power of walking ; and, with this infirmity, he suffered much from lumbago. The various symptoms of his indisposition continued more or less urgent up to July 1825, when I first saw him.

The muscles of the lower extremities were wasted and relaxed. He had jactitations and



cramps ; the sensation of *pins and needles* in different parts of the thighs and legs ; remarkable coldness, especially in the knees and feet, even on the hottest day ; a sense of extreme weakness in the loins, with occasional aching pain, exactly of the nature of lumbago, and sometimes confirmed lumbago ; a considerable deficiency of power in the contractile action of the bladder. He was so much a cripple in walking, that he could not trust himself alone across the room.

With these symptoms, a faulty state of the bowels was more confirmed than in almost any instance which ever came under my observation.

The correction of this error was therefore the first point of treatment. This having been pursued for two months, the patient went to Buxton, well prepared to receive the advantages of that bath. The immersion and the pumping agreed perfectly ; and, at the same time, friction and shampooing were used to the loins and limbs, together with the application of a stimulating liniment. As he perspired profusely on the least exertion, I prescribed sulphate of quinine, with a full dose of aromatic sulphuric acid, twice a day, from which,



great benefit was derived. The bowels were regulated by means of a pill, consisting of gr. iiss. of aloes, much deprived of its resin, by being evaporated after its solution in water ; and the same proportion of extract of camomile, with half a drop of oleum carui. It was taken daily, an hour before dinner. This gentleman found the most material support and comfort from wearing the belt already mentioned on the loins. He visited Buxton again in 1826 ; and, I have the satisfaction of adding, he has perfectly recovered his health.

In the two first cases, we may impute the occurrence of lumbago, in a great measure, to the effect of strain of the lumbar muscles in the violent exercise of hunting, predisposing the parts to become affected by the influence of cold. In the last case, the injury to the back was of a more direct and positive nature ; but it appeared to lay the foundation of such lumbago as afterwards occurred.

I could add numerous cases of lumbago in which the Buxton bath has rendered the most material and permanent benefit ; and I may here



take occasion to observe, that those rheumatic persons who have found it agree perfectly with their constitution, should make a point of resorting to Buxton several seasons in succession, in order that they may endeavour to overcome the rheumatic diathesis. The benefits of this bath are also of the greatest importance to those invalids who have incurred an infirm state of limbs from gout.

#### CASE IV.

Chronic Lumbago, of the most tedious and intractable description.

The use of alteratives and aperients, and regulation of diet, appeared to afford most relief, and some prospect of a cure.

A GENTLEMAN, aged sixty, corpulent and muscular, was first attacked with lumbago in 1815, from which he had never been completely free up to October 1826, when I last saw him. He had experienced two slight attacks of gout, and had occasionally suffered much from gravel; but the nephritic symptoms were distinctly different from the rheumatic. He complained of much coldness of the loins. The act of rising from a chair was always painful and difficult; and he could not rise from the bed without assistance.

The stiffness which belongs to muscular rheu-



matism after repose was here characteristic. He could continue in walking exercise on level ground for a considerable time.

Sometimes riding in a carriage would bring on aching of the loins in a distressing degree. Friction of the part, if not used roughly, was agreeable and useful. He derived a comfortable feeling of support from wearing the belt for the loins. No rheumatism in the limbs; but he was subject to cramps in the thighs and legs. It was distinctly chronic lumbago, and the most obstinate which I ever witnessed. He had consulted the most eminent physicians and surgeons, and had used almost all the known remedies for rheumatism, both local and constitutional.

The sulphur water of Harrowgate always proved useful; and, upon investigating the state of the digestive organs, I found manifest indications of a wrong action of the liver. I considered, therefore, that a persevering plan of treatment with alteratives and aperients would constitute the only rational mode of proceeding; for mere palliation, and that only occasional, had followed the use of anti-rheumatic remedies. I had the satisfaction of



witnessing an improvement of the case ; but a long course of time would be required to effect a cure, if at all practicable.

The vapor bath in this case did not relieve. The warm Buxton bath was always agreeable, and certainly rather useful. The natural bath instantly produced a severe painful sensation, as if a tight cord had been drawn all around the body ; and a spasmodic difficulty of breathing ensued, which was alarming.

I entertain the expectation, that repeated courses of medicine on the principle just now stated, and regulated diet, may effect a great amendment in this difficult case.

#### CASE V.

Chronic Lumbago.—Stramonium useful in the first instance, afterwards disagreeing ; when bark rendered much benefit.

A YOUNG man, of delicate constitution, had suffered occasional attacks of chronic rheumatism ; the first of which was consequent to a continuance of the acute form for several years. When he consulted me, he complained of severe lumbago, which was constant, and of flying pain in his limbs. After walking a few minutes, the pain of



the back became insupportable. As opium materially disagreed with this patient, I directed the use of stramonium and lactucarium ; and, to the seat of pain, emplastrum opii spread on a large piece of leather, in conjunction with a flannel roller firmly carried round the loins. These remedies were used with such success, that he quickly recovered. Many months after, from fresh exposure, he relapsed, and was altogether in a state of debility. Now, the same pills disagreed, and the stramonium produced those inconvenient effects which are not unusual in its operation, of dryness of the throat, and dimness of sight. On the present occasion, one arm also was severely rheumatic. He derived material benefit from free doses of cinchona, the use of pilul. hydrarg. with extr. colocynth. comp. on alternate nights, and active friction night and morning with the embrocation p. 328.

#### CASE VI.

Chronic Lumbago. The cure effected by means of alteratives and aperients, colchicum, black drop, and lastly the Buxton bath.

A GENTLEMAN, aged fifty-three, stout, and of healthy appearance, was first seized with a rheu-



matic pain in the hip in 1819, after riding on horseback on a cold day. In the same year he suffered on two occasions for a short time from lumbago. In 1821, after standing in a current of air near the door in a hot concert room, he was attacked very severely with lumbago; for which, amongst other remedies, he used a vapor bath each other day, for more than three weeks, at a temperature from  $106^{\circ}$  to  $110^{\circ}$ . He recovered for a short time, but from fresh exposure relapsed; and, from this time, the lumbago became truly chronic. He could not turn in bed, and had extreme difficulty in rising in the morning. He often experienced strong spasms in making this effort. The change of posture from sitting was also very painful; and, especially after being warm from walking exercise, together with a most distressing sense of stiffness. Laying the legs upon a chair was a painful exertion. Occasionally, the pain of the loins was severe; but, for the most part, it was of a dull aching kind.

The treatment consisted in the use of an occasional dose of calomel and colocynth at night, followed by a senna purgative in the morning;



the draught, p. 328, at bed time, the black drop in a saline draught, once or twice in the day, as might be required ; friction with the liniment, p. 328 ; the plaster, p. 166 ; a flannel roller ; and, lastly, the Buxton bath and pumping. The patient obtained a permanent cure.

#### CASE VII.

Lumbago, severely painful, unattended with fever. The use of stramonium, colchicum, and guaicum, with a belladonna plaster, formed a successful plan of treatment.

A GENTLEMAN, aged 61, enjoying good health, with the exception of occasional attacks of lumbago, had been confined to his bed a considerable time with one of these seizures, wholly unable to move in the least degree when I first visited him. Any attempt was attended with agonizing pain and spasms. He had taken sudorifics, and perspired profusely in consequence, without any relief. He was quite free from fever, and had a clean tongue. His constitution was peculiar with regard to opium ; it occasioned a comatose state which appeared alarming. Any strong preparation of colchicum irritated the stomach and bowels immediately and severely.



He took the following medicines with great advantage: R Extract stramon. (e seminibus ppt.) gr. ss. ad gr. i. extract. colchic. acet. gr. i. ad gr. ii. extract. glycyrrhiz. gr. ii. M. et fiat pilula bis terve die sumenda, superbibens hunc haustum.—  
 R Tinct. guaic. ammon. ʒi. ad ʒiss. Vitell. ov. q.s. Liquor. ammon. acet. ʒiii. Syrupi tolutan. ʒi. Mist. camph. ʒi. M. He received benefit from the application of a large belladonna plaster, as at p. 419. The patient recovered in a much shorter period than from former experience he was led to expect.

These are amongst numerous examples which I have met with, in which the rheumatism has been almost distinctly confined to the loins; but for the most part chronic lumbago is joined with sciatica, and often with rheumatism in other parts.

I have seen instances in which an aneurism of the aorta has been mistaken for lumbago. One patient was a young man of healthy appearance, between thirty and forty years of age. The symptoms came on very gradually. He first complained of pain in the upper part of the loins, which



caused him to walk as a person affected with lumbago. It was a constant pain, but was always increased upon an action of the bowels taking place. After a time, the appetite became affected, and there was loss of flesh and strength. The symptoms of pain and difficulty of taking exercise increased. The disorder was treated empirically as for lumbago. At length, a strong pulsation was accidentally discovered in the abdomen, just above the umbilicus ; and a consultation being held, the case was pronounced to be an aneurism. Need I add the details of the certain melancholy result ? Upon examination, an aneurismal tumour was found upon the aorta, between the superior and inferior mesenteric arteries. It had ruptured, and the hemorrhage had taken place partly into the cavity of the abdomen and partly into the duodenum.

Another Gentleman, aged 47, had long suffered severely from general rheumatism, and in the progress of it experienced a pain in the middle of the back, rather low down, which was occasionally most excruciating. It was considered to be of the nature of lumbago ; but it undoubtedly arose from an aneurism of the aorta, of which he died.



The third case occurred to a gentleman, aged 51, who had often suffered from lumbago. He became affected with a constant pain in the middle of the back. By some it was considered to be rheumatic, by others as arising from disorder of the liver. He had lost flesh gradually, and could not bear fatigue as formerly. The existence of aneurism was never suspected. After some slight bodily exertion, he fell down as in a fit, and died instantly.

Upon examination, an aneurism in the aorta behind the small muscle of the diaphragm was discovered, which had burst.

In chronic cases of fixed pain in the back, situated about the middle, when the usual means of treatment fail to give relief, we should do well to make a free and careful examination with the stethoscope; for it is highly probable that, if the disease should be aneurismal, as in these instances, by means of this instrument we should discover a pulsation of a nature that would lead to the diagnosis.

Although the disease is without remedy, much advantage, in various points of view, would attend our becoming acquainted with it.



It is in chronic rheumatism that we most frequently see the disease affect one class of textures more particularly than another, although seldom quite exclusively.

#### CASE VIII.

Chronic Rheumatism, chiefly affecting the ligaments. Sulphate of quinine, carbonate of iron, and the shower bath, very serviceable.

A YOUNG LADY, aged twenty-seven, appearing delicate, was attacked, after exposure to cold, with rheumatic pain in the wrists and ankle joints, without the least appearance of inflammation or swelling. Soon afterwards she had lumbago.

The complaint had continued some months when I first saw her. She described that she seemed to have lost all power in the wrists and ankles. She soon became fatigued in the wrists, even from drawing ; and, in walking, the ankles turned suddenly, so as to endanger her falling. The weakness of the ligaments was quite evident. The hands and feet appeared to be loose and unsupported. She had also cramps frequently in different parts ; occasional sensation as if needles were piercing the veins ; snapping of the tendons ;



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lumbago ; and much nervousness and general relaxation.

The most satisfactory results followed from the use of the shower bath ; sulphate of quinine ; carbonate of iron ; bandages ; and stimulating liniments.

### CASE IX.

Chronic Rheumatism, in a most inveterate manner affecting the muscles of the chest, and the constitution peculiar in many respects. A change of residence to the continent, and the waters of Barége useful.

A LADY, aged forty-one, of the nervous temperament, first found a failure of her health take place in the occurrence of severe head-aches ; which, from their being remarkably influenced by the state of the atmosphere, she considered to be rheumatic. When I first saw her, she had many extraordinary symptoms. She was universally rheumatic, and her circulation was so languid, that even on a warm day, when not in exercise, she complained of coldness and numbness of the whole of the upper and lower extremities ; and, on a cold day, when she was in the air, the face would quickly assume a purple hue. Every



day, more or less, she was seized with a sensation "as if the arms and hands were dying away," as she expressed herself; and sometimes the feet were affected in the same manner. I witnessed the perfectly livid appearance of the fingers and hands in this kind of attack. The whole arm had the feeling, she said, of being very big. A return to the natural state was attended with the sensation of pins and needles. She complained of such weariness in the arms, that she could seldom make the exertion of even using her needle. The hands, knees, and ankles, were the parts most affected with rheumatic pain. Both tendinous and ligamentous structure was affected in different parts. It would require a very extended description to include all the symptoms of which this lady complained.

She had not sufficient powers of re-action after immersion in the Buxton bath; nor did she receive any benefit from the hot baths at Bath. Medicines palliated, but did not permanently relieve the symptoms.

Soon after quitting Bath, she was attacked with inflammation of the diaphragm, and of the muscles of the chest. On her amendment from this



attack, she was left suffering with chronic pains of the muscles of the chest, so that not only quick moving was rendered impossible, and the action of the arms painful, but even laughing was attended with pain and spasm across the chest.

I never saw a more inveterate example of the rheumatic diathesis, or one in which medical treatment afforded so little advantage.

I advised a removal to the continent, and a trial of the baths of Barége. She acquired some improvement of health, and found benefit at Barége, but still continues a very rheumatic invalid.

Many cases have come under my observation in which the patient has considered himself to be laboring under rheumatism ; the pains having been in reality dependent upon latent syphilitic virus. I know no form of disorder more insidious, and demanding more careful diagnosis. I shall offer two examples.

#### CASE X.

Chronic Rheumatism, syphilitic, and a cure effected by a mercurial alterative and sarsaparilla.

A GENTLEMAN related, that, during four months



previously to my seeing him, he had suffered severely and constantly from pains of the shoulders and arms, which he considered to be rheumatic; and that he had contracted the complaint from exposure, on quitting hot rooms at night, to the open air. These pains were not much influenced by the state of the atmosphere; and the digestive functions were healthy. Most of the usual remedies for rheumatism had been tried to no purpose. My discovery of the nature of the case was directed by observing, partly on the arms, but more especially on the back and breast, a scaly eruption, which was accurately the psoriasis guttata syphilitica, as described by Willan and Bateman. The history which the patient gave of such original circumstances as might assist this explanation of the case, was too much disguised to deserve dependance. When, on such occasions, any concealment is practised (upon very false principles of delicacy), we must not allow our judgment to be biassed; but, trusting to the evidence of our senses, and our own legitimate reasoning, we are to act with decision. I prescribed hydrarg. oxymur. formed



into pills with bread, adding some muriate of ammonia; and with this alterative joined the compound decoction of sarsaparilla and the regular use of the warm bath. At the end of three or four days the pains entirely quitted, and never returned. The case required a steady treatment of three months; but the very quick relief which was afforded to the patient's sufferings, and the permanent cure which was finally obtained, gave a most satisfactory proof of the correct diagnosis of the case.

#### CASE XI.

Chronic Rheumatism; syphilitic. The same means of treatment as in the preceding case successful.

A GENTLEMAN had suffered various secondary symptoms, and undergone a long and apparently sufficient regular mercurial course. He had been convalescent two months, and was only recently recovered from the sensible influence of the mercury. After exposure to cold air late at night, he was attacked with pain on one side of the forehead, and in the eye. This intermitted, and in its



returns extended to the upper part of the head ; and so much increased in severity as to produce delirium. The eye itself became inflamed. Leeches and blisters were applied freely and repeatedly, and various medicines were given, amongst which, bark and opium, with James's powder, were the principal ; but from the anodyne alone was any degree of relief obtained, and that only of a temporary nature. The intensity of the pain produced an exquisite tenderness of the parts. The lacrymal sac and duct became inflamed and painful ; and the skin of the nose on the same side now assumed a dark copper colour. This immediately induced a new and fortunate view of the disease. The medicines mentioned at the conclusion of the last case were administered with the happiest effects. After a few doses, the pain became slight, and, from the expiration of a week, never more returned.

In the following instance of *mercurial* rheumatism, a different treatment was required.



## CASE XII.

Chronic Rheumatism, resulting from an imprudent employment of mercury. Sarsaparilla with bark, and the vapor bath, proved curative.

A GENTLEMAN had undergone a long and severe mercurial course, and imprudently exposed himself to wet and cold before his recovery. The consequence showed itself in a severe and universal attack of muscular rheumatism, which rendered walking exercise always painfully difficult, and sometimes impracticable. He was deprived of sleep at night; and such constant constitutional irritation prevailed, together with pain, that he became emaciated, exhausted, and indeed alarmingly weak. It was so well known that too much rather than too little mercury had been used in this case, that a return to that medicine did not seem reasonable. On the contrary, the vapor bath was chosen to expel the mercury by the surface; and sarsaparilla with bark, and a supporting regimen, were given internally. Other treatment had been previously tried without the least advantage. The remedies now mentioned suc-



ceeded perfectly. The very happiest effects resulted from the use of the vapor bath, which was regularly continued for a considerable time.

Rheumatism sometimes attaches itself almost exclusively to the bursæ. The following are examples, which I shall state in the most abridged form.

#### CASE XIII.

Chronic Rheumatism, affecting the bursæ; most frequently and severely at the knees. For the active state of the symptoms, alteratives and aperients recommended; in the intervals, the shower bath, sulphur, and soda.

A GENTLEMAN, aged forty-two, not apparently unhealthy, was attacked, in May 1812, with dull pain, attended with swelling at each elbow joint, without discoloration. In a few days after, in the same manner, in the ankles and ball of one toe. During the summer, much weakness in the ankles. In September, a sudden swelling in one knee; no pain except on motion; uneasiness from tension. This attack passed away suddenly in a few days.

Up to the year 1821, when I first saw this gentleman, he had frequently in each year suffered



more or less from the complaint in several bursæ ; and, at one or other period, scarcely any part of the limbs where bursal texture is situated escaped. The knees were the most affected, but all the fingers partook in the complaint. He thus described the state of the knees. “ Sometimes the swelling was soft, sometimes as hard as a tennis ball, and then the heat was the greatest, but never excessive ; the skin had a polished appearance, but had the natural color.” During the attacks, he always felt great languor and nervous depression. For a considerable time they returned periodically, every two months. They were of short duration. He was sometimes much affected with dyspepsia ; but the immediate attacks he always traced to cold. During the active symptoms, he had made trial of leeches and blisters, but, he considered, without benefit. After a few days from the attack, friction was useful, but did harm at first. He had taken alteratives, aperients, colchicum, and various other medicines, with very little apparent influence on the complaint.

I directed that in future attacks he should apply the lotion, p. 120, by means of compresses ;



and, as soon as the part would allow, to use a roller, not tightly applied, wetted with the lotion : as internal medicines, alterative doses of calomel, James's powder with a little opium, and the draught, p. 92, with or without antimony, according to the degree of inflammatory action.

As treatment in the interval of the attacks, I advised the regular use of the shower bath ; and a course of powders occasionally, with precipitated sulphur and dried subcarbonate of soda ; and a regulated diet.

I strongly recommended a visit to Buxton, but this was not convenient.

I had the satisfaction of learning that my prescriptions proved very successful in the first year of their being tried, since which I have not heard from my patient ; he lived in a distant part of the world.

#### CASE XIV.

Chronic enlargement of the bursae at the knees and wrists, attended with rheumatic sensations.

A LADY, aged sixty-four, robust and of healthy appearance, consulted me on account of swellings at



the knees and wrists. She walked with great difficulty, and was much restrained in the use of the hands, so remarkable was the debility induced in the respective parts. The bursæ were enlarged to an extraordinary size, and appeared like loose bags of jelly. Over-exertion in walking, or excess of hand rubbing, produced aching pains, and now and then slight inflammation ; but otherwise her chief inconvenience arose from infirmity. She was rather affected by variable weather, especially by damp.

Moderate friction with the following liniment proved useful : R Camph.  $\zeta$ ss. ol. oliv.  $\zeta$ iss. ol. terebinth.  $\zeta$ iss. M. A firm roller, the plaster, p. 374, and sulphur with soda, as just now mentioned, were sources of early benefit, and this lady's situation was rendered much more comfortable ; although, at such an advanced period of life, a cure was not to be expected.

Bursal enlargement of a temporary nature is sometimes induced by very slight causes. A gentleman relates to me that, at an early period of his life, much walking immediately produced a jelly-



like swelling at the knees, which soon disappeared with rest. The handling of a gun in shooting, of the reins and whip in driving, produced effusion in the sheaths of the tendons in the palm of the hand. This was not attended with any pain.

When the bursæ become indurated in a remarkable degree, so indeed as to acquire sometimes the condition of bony hardness, the complaint may take the name of nodosity ; which Dr. Haygarth appears to have separated as a distinct complaint, according to the characters stated in my quotation, p. 357.

I find that laboring persons are very commonly affected with nodosities, partly arising from the state of the bursæ and the sheaths of the tendons, and partly from a thickened state of the ligaments ; but, as occurring spontaneously, I have seldom recognised this affection, except as the consequence either of gout or rheumatism. I shall not, therefore, enter upon the distinct consideration of treatment, conceiving that the principles which I have already stated in this Treatise may be held applicable to this variety of the disease.



In the present year, I was again called to the assistance of the unfortunate patient whose case I have described at p. 216.

I learnt that, in the course of a few months after he went upon the continent, he recovered flesh and strength considerably, but was subject to palpitation. In June of the following year, at Paris, he was attacked severely in the same manner as I have before related. He was never afterwards favorably convalescent. The occurrence of distressing palpitation was induced by slight causes. He labored under chronic rheumatism, affecting chiefly the muscles, but also the ligaments. The indications of an enlargement of the heart increased rapidly. In the middle of February of the present year, anasarca first appeared about the neck and face, and gradually became general. He died in the second week in April.

I visited the patient about ten days before his death: his appearance was most distressing. The countenance was swollen; and of a dark color. He had great difficulty in finding a supportable position, which the impending dread of suffocation often compelled him to change suddenly. He usually lay



inclining to the right side, supported very high. He had not constant severe pain, but occasionally both pain and spasm were very severe in the region of the heart; and the palpitation and difficulty of breathing were most frightfully urgent. The pulse varied much, but was usually dilated, throbbing, very frequent and irregular.

An examination of the body was made by Dr. A. Sayer, who kindly favored me with a most accurate and detailed account of the appearances, which I subjoin\*.

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\* "The lower extremities from the feet to the groins were œdematous, and enormously distended with fluid. Effusion had taken place into the cavity of the peritonæum to a great extent, and in various degrees into the cells of the cellular membrane, throughout the whole body.

On removing the sternum, with the cartilages and ends of the seven first ribs, the heart appeared increased in size to more than thrice its usual volume.

The lungs were nearly hidden. Effusion, to a small extent, had taken place in the cavities of both pleuræ. Some slight adhesions had taken place between the corresponding surfaces of the pleura pulmonalis and the pleura costalis of the left lung. Both lungs were gorged with very dark blood. In other respects they did not appear diseased.

All around the heart, the corresponding surfaces of the pericardium were so firmly united as to render necessary the



Having witnessed many instances of rheumatic inflammation of the diaphragm and muscles of the

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removal of a portion of the centrum tendinosum of the diaphragm with the diseased organ. When removed, it weighed, with the pericardium and this portion of the centrum tendinosum of the diaphragm, two pounds three ounces avoirdupois.

The right auricula was greatly enlarged. The appendix auricularis had disappeared externally, from the distention it had undergone. Its inner surface and that of the auricula were so completely identified, as to leave little or no trace of separation. The muscoli pectinati had acquired an increased size and strength. At the superior and anterior part of the circumference of the membranum ovale, was a circular opening, about the eighth of an inch in diameter. The deep concavity of this membrane on the side of the right auricula sufficiently indicated the pressure it had sustained. The edges of this circular aperture were smooth and regular. The orifices of the venæ cavæ and the coronary vein were larger than natural. The right ventriculus had very little increased in volume; its parietes were rather thicker than natural. Its cavity slightly exceeded its usual dimensions. The columnæ carneæ of this ventriculus were stronger and firmer than usual, and the divisions of the tricuspid valves and the cordæ tendineæ were slightly thickened. The pulmonary artery and its semilunar valves were in their natural state. The left auricula was enlarged to thrice its usual size, and increased in thickness. The appendix auricularis was still distinct externally, but its cavity was much enlarged from the pressure it had sustained. On the right side of the auricula were the orifices of five pulmonary veins, two of nearly the usual diameters, with three of very small dimensions. On the left side there were only two orifices.



chest, both in the acute and chronic form, without the heart becoming affected, I imagine that, in

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The left ventriculus had acquired more than thrice its usual volume; its parietes were greatly thickened. The columnæ carneæ were much increased in size, strength, and firmness. The edges of the mitral valves and the cordæ tendineæ were considerably thickened. The cavity of this ventriculus had acquired full thrice its natural capacity. The commencement of the aorta and its arch had undergone considerable distention. The semilunar valve, corresponding to the orifice of the anterior coronary artery, presented a large osseous concretion situated at its base. It occupied in length nearly the whole extent of the base of the valve, and in width about two-thirds of its breadth. The edge of this valve, considerably thickened, was perfectly regular and smooth. The semilunar valve, corresponding to the orifice of the posterior coronary artery, was considerably thickened. The third semilunar valve was very much thickened, particularly at its base. The edges of these two valves were less thickened than that of the first, and were both regular and smooth. In the first, the corpus sesamoideum aurantii had totally disappeared, and in the two last valves they were scarcely perceptible. When viewed from the left ventriculus, the pressure and distention experienced by these valves was most striking. They had lost their natural and uniform spheroidal surface. Each valve had assumed a different and irregular convexity. The third valve, and that corresponding to the orifice of the posterior coronary artery, had experienced the greatest distention and elongation. It was also apparent, from the distention the aorta had undergone, and from the diseased state of the semilunar valves, that they were incapable of closing the artery. Both the right and left cavities of the heart were filled



the cases of enlargement of the heart taking place in connexion with rheumatism, there exists a predisposition in that organ to undergo morbid change of structure, and which may become accelerated by the rheumatic inflammatory action that sometimes not only affects the muscles of the chest and the diaphragm, but even the heart itself in a direct manner\*. I conceive, also, that in certain cases

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with thick and very dark-coloured blood. In the right ventriculus, entwined around the *carneæ columnæ*, was a polypiform concretion of a firm texture and of considerable size. At about an inch and a half from the apex of the ventriculus, it branched off into two divisions: one, proceeding between the divisions of the tricuspid valve, entered about an inch into the right auricula; the other branch lay between the semilunar valves of the pulmonary artery, and extended beyond them three inches into the vessel. In the left ventriculus there was a small coagulum, in which, towards one side, the separation of the fibrine had commenced. The whole of this coagulum was quite free from any connection with the cavity of the ventriculus. From the texture, firmness, strength, and appearance of the polypiform concretion in the right ventriculus, it must have been formed a considerable time anterior to the decease of the patient; while the transition state of the unconnected coagulum in the left ventriculus indicates its formation to have taken place in *articulo mortis*."

\* I have lately attended a young lady ill with palpitation of



of enlargement of the heart, connected with the rheumatic diathesis, the disposition to enlargement may be assisted by the morbid irritability of the

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the heart, in connexion with rheumatism. She had acute rheumatism three years ago; and has frequently had chronic rheumatism since in the ankles, knees, shoulders, and muscles of the chest. She was first sensible of this affection of the heart sixteen months ago. Her symptoms were, pain in the region of the heart, but still more distinctly at the point of the left scapula; respiration rendered difficult, and the palpitation induced by slight causes; necessity of lying high in bed, and upon the back; incapability of bearing tight clothing over the chest; the pulse vibratory, and 116, and occasionally irregular; the action of the heart, by mediate auscultation, appearing sharp and vehement, and more extended than natural; much nervousness and general debility. This patient has received material improvement from the insertion of a seton over the heart; from sulphate of quinine with tincture of digitalis, and occasional doses of compound extract of colocynth with the pilula saponis c. opio, and the usual general means of treatment. I purpose that she shall use the shower bath.

A gentleman has lately been under my care, apparently suffering from rheumatic spasm of the diaphragm. On meeting a cold wind, he was instantly seized with a pain in the situation of the diaphragm and with difficulty of breathing. He was relieved by colchicum joined with mild sudorifics, and the warm bath; was immediately sensible of a change of the wind from a cold to a warm quarter; and has remained well during the continued mild weather.

In concluding this part of my Treatise, I should do injustice



heart, which so commonly accompanies constitutional rheumatism, without supposing that the heart itself is affected with direct rheumatic inflammation or irritation.

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to my friend Dr. Hawkins, if I omitted to recommend to the attention of the reader the excellent critical investigation of the Nature and Treatment of Rheumatism, recently published by him, the substance of his Gulstonian Lectures read at the College in May 1826.



## ON NEURALGIA\* RHEUMATICA.

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UNDER this general term, I purpose to treat of such painful affections of the nerves as appear to be of a rheumatic nature ; and of those, sciatica or rheumatism affecting the sciatic nerve and its branches, will principally engage my attention.

The writings of the ancients, from Hippocrates downwards, shew their acquaintance with the general symptoms of this disease. It is evident, however, that they had no correct pathology, and that they considered the pains of the loins and hip, extending over the limbs, to be a species of gout. Aretæus uses the term *Ischias* to denote the hip gout. Celsus treats of the complaint under the head “*de morbis coxarum.*” Hippocrates considered the seat of the disease to be in the veins ; for at that distant period, the function of

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\* From *νεῦρον* a nerve, and *ἄλγος* pain.



the nerves was not known. Aretæus speaks of the nerves generally as being affected in gout.

Cotunnus, a Neapolitan physician, wrote a Treatise on the Nervous Sciatica about 1775 ; and he divided the disease into two species, the posterior and anterior, accordingly as the sciatic or the crural nerve should be respectively affected. He attributed the disease to a collection of acrid matter in the vagina or sheath of the nerve. He offers some useful practical directions ; but his theory is diffuse and unsatisfactory.

Lumbago, as I have already observed (p. 456), arises in some instances from an affection of the muscles or their aponeurosis, in others, of the lumbar nerves ; and in this latter case, it is most commonly joined with sciatica. As we find that the lumbar and the sacral nerves, and the nerves of the upper extremities also, become affected with this complaint in common, the term neuralgia rheumatica is more suitable to my present purpose, than if I were to confine my observations to the treatment of merely one particular form of the complaint.

Sciatica, or the rheumatic affection of the scia-



tic nerve, is the most frequent, and the most important variety of rheumatic neuralgia. Of this I shall therefore treat first, and most at length.

Van Swieten well observes, “ The muscular fibre that lies about the loins, the nerves that spring from the spinal marrow, the vertebræ of the back, the deep joint of the hip covered over with strong muscles, the nerves that are so large, all seem to tell us, that rheumatism in these parts must be very troublesome, and the cure, *cæteris paribus*, more difficult.”

Sciatica occurs both in the acute and chronic form. When acute, however, it is seldom attended with pyrexia or inflammatory fever, although there is great disturbance of the whole system. I have witnessed the most intense sufferings arising from acute sciatica, without any considerable increase of the pulse, or heat of skin ; so different is the manner in which the circulating system is affected by painful irritation of nerve, from that which takes place when inflammatory action attacks other textures, as, for example, ligaments and tendons.

The symptoms of neuralgic rheumatism will be fully described in the cases which I shall relate.



The diagnosis of sciatica, from a deep-seated affection of the lumbar vertebræ, or from rheumatic affection of the ligaments of the hip joint, or from scrofulous diseases of the same parts, will seldom or never prove perplexing. According to my observation, the disease of the sciatic nerve may be always traced anatomically by the course of the pain.

When rheumatism affects the ligaments of the hip joint, either in the acute or chronic form, the pain is entirely local, and is evidently seated more about the joint than when the sciatic nerve and its branches are affected. For the characters which serve to discriminate the scrofulous disease of the hip joint from rheumatic inflammation of the same part, I refer the reader to the able Treatise of Mr. Brodie.

Mr. Ford offers the following remarks, which apply in some measure to the present subject. "The disease of the hip joint produces a weakness of the lower limb necessary to be distinguished from a paralytic affection, to which it is liable in common with other parts of the body." And he further observes, "the elongation and wasting



of the limb, the pain in the knee, the uneasiness felt in moving the head of the thigh bone in its socket, are all permanent and characteristic features of the hip disease.\*”

In more than one case, I have found medical opinion divided as to the nature of the disease, and a doubt entertained whether it was scrofulous inflammation of the synovial membrane of the hip joint, or pure sciatica ; but I do conceive that the extension of the pain and irritation to the branches of nerves which supply the muscles, will almost alone establish the diagnosis. In the severe forms of sciatica, the disability of the limb is as complete as it can prove under any other disease or any other form of injury ; but, in these cases, the pain is pointed out, even by the patient himself, to be in the course of the nerve.

This disorder is of the most uncertain duration. In the slightest cases, the symptoms may be removed in the course of a few days, by the ordinary means which relieve slight rheumatism ; but, when it is inveterate, either as acute or chronic, the du-

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\* Observations on the Disease of the Hip Joint, p. 35.



ration will depend chiefly on the general state of the constitution, and particularly on the condition of the liver, and of the digestive organs generally. It is scarcely possible to assign any limits to the time that this disorder may continue; but we have the consolation of knowing that, even in the most urgent cases, no apprehension need be entertained for the patient's life, and that a cure seldom fails to be at length effected.

The treatment is required to be general and local; but it is so much a local disorder that topical remedies are of the greatest importance.

Cotunnius may be allowed the merit of having more fully described the symptoms of sciatica than the ancient writers, and to have laid down a clearer method of treatment. Under the idea of evacuating a supposed acrid humor from the sheath of the nerve, he advised the free application of blisters, and rather in preference to the actual cautery\*, from its being a milder remedy, equally successful, and because, according to his theory,

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\* From Hippocrates we have the following aphorism:—  
“ Quibus coxendicis dolore conflictatis, coxendicis articulis suo



“if the humor which is to be drawn out is sizy, as in sciatica of long standing, the skin, when burnt and wrinkled up, may not be so properly adapted for excretion, so that the actual cautery seems rather more proper for a new than an old sciatica\*.”

I learn from some of my surgical friends who, during the late war, had opportunities of dissecting the sciatic nerve after it had been long affected with this disease, that they found the substance of the nerve much increased, and the vasa nervorum enlarged; proving therefore distinctly, that often, if not necessarily, the disease is seated in the nerve itself. Certainly, a thickening of the neurilema alone may, by pressure of the nerve, cause the symptoms.

Mr. Earle, in a paper † in the 7th volume of the Medical and Chirurgical Transactions, relates

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*loco excidit iis crus tabescit, et claudicant nisi curantur.*” This description appears to apply to the scrofulous disease of the hip joint.

\* On the Nervous Sciatica, p. 161.

† Cases and Observations illustrating the influence of the Nervous System in regulating animal heat.



the case "of a painful affection of the ulnar nerve, in which all the usual means of treatment failing, he was induced to remove a portion of the nerve, and happily with perfect success, in preventing the return of pain. He states, "rather more than an inch of the nerve was dissected out, as low down as where it passes behind the internal condyle. The neurilema covering the nerves, appeared firmer and thicker than natural."

Dr. A. Sayer informs me that, on opening the neurilema of a diseased sciatic nerve, he has found a gelatinous kind of secretion.

I proceed now to the narration of some select cases, on which I shall offer practical comments.

#### CASE I.

Sciatica, with constitutional debility. Conium the most useful sedative. Blisters not apparently useful. Warm sea bathing and tincture of ammoniated iron afforded benefit.

A LADY, slight in form and of delicate constitution, in the summer of 1817, found herself gradually becoming relaxed in her general state of health. In the month of June, after some exces-



sively hot days, she first experienced an uneasy sensation in the legs. The following descriptive account is in the words of the patient. "The legs were burning hot and weak, and the right in particular felt asleep, and as if swollen, but it was not in any degree. I took no notice of this for about ten days, at which time I was obliged to keep always in a reclining posture, in consequence of a violent spasm in my right leg. This spasm took its rise under my knee, darting down to my heel, or, nearly, but not quite, up to my hip. It was followed by a slight convulsion of the muscles of the limb, and this was visible. I compared it to a narrow animal, about five inches long, struggling for a passage down or up. This distressing pain lasted about two months. I was never tolerably easy but when lying down entirely flat. The paroxysm of pain went off gradually, leaving my legs again sleepy and uneasy; and I felt great stiffness and weakness about my back and loins. The right leg was colder than the other, and the skin was much more pale in appearance. I may add to this account, that, when the severity of the disorder abated, the sitting posture for a considerable time



produced great uneasiness in the right thigh and leg, and caused in both limbs the sensation of pins and needles."

This lady could not take opium in any form without material disagreement. Stramonium produced a sense of dryness in the throat, so intolerable that it could not be continued for more than two or three days; nor did it relieve the pain. Extractum conii, however, had a manifest influence over the pain, and, although it caused giddiness, and therefore caution in its use was necessary, it proved very serviceable. So easily was the system excited during the early part of the complaint, that tonics immediately produced feverish heat. In regard to local treatment, blistering was used without advantage. A liniment, as at p. 328, was decidedly useful, producing an agreeable warmth in the limb, and causing the feeling of more energy and strength. Friction with the hand was also very useful. Warm sea bathing completed the cure; and, from its commencement, gave comfort, and very sensibly produced the best effects. Latterly, the tinctura ferri ammoniati taken in water simply, was of much advantage as



a tonic, and in restoring some functions of the constitution which had been suspended. The patient has continued perfectly free from relapse, and in all respects remains well.

## CASE II.

Chronic sciatica, with lumbago, afterwards assuming the aggravated form of acute sciatica. Anodyne medicine more distinctly beneficial than any of the other means used. A cure effected.

A GENTLEMAN, aged forty-two, of slight form, and appearing delicate in constitution, but yet enjoying general good health, was ardently engaged, in the month of September in the year 1818, in shooting, and walked in wet fields, regardless of any exposure. At the end of the month he became first affected with lumbago. The pain spread round to the left hip, and partly down the thigh. He was confined to his bed or chamber about a month. At one time the pain quitted the loins and hip, and went to the knee and ham. This part was fomented, and the pain again returned to the hip. He stated that cupping on the hip, and leeches fifteen in number applied to the same part, had failed to give relief. A blister had



been useful. He had taken James's powder, so as to produce copious perspiration ; but without any sensible advantage. He gradually recovered from this attack, and in December again returned to the sports of the field, walking from eight to twelve miles daily. A severe relapse took place ; and now the sciatic nerve of the limb before affected became distinctly the part in pain. In the first instance the limb appeared to be always cramped. It was much colder than the other. He had a frequent sensation of creeping down the limb ; sometimes as if an insect were crawling. The blood itself seemed to be trickling. The sensations were very various at different times. In the early part of this relapse he was under the necessity of travelling, and in this way aggravated and fixed the complaint. At length the pain became truly severe, and was a constant aching along the whole course of the sciatic nerve. The following may be added to the statement of the occasional sensations before mentioned :—The feeling of a remarkable increase of bulk in the limb ; coldness in one part, and burning heat in another ; a heat on the surface of the foot, as if recently scalded ; the intensity of the



pain shifting its situation to different parts of the thigh and leg ; cramps ; starting of the limb, particularly on the first attempts to sleep at night. The whole limb became rather diminished in size ; the muscles were much relaxed. The tenderness to pressure along the whole course of the nerve was excessive. The pulse was regular and seldom quickened. The general health appeared to be scarcely affected, except as languor and some exhaustion followed the attacks of pain, and became consequent to the necessary confinement.

The warm bath, embrocations, the emplastrum opii, in conjunction with internal medicines, failed to give relief. He made trial, at his own request, of M. La Beaume's topical hot-air bath ; but it caused a painful sensation of enlargement of the limb, as if it would burst, without any subsequent benefit. Next a caustic issue was made at the hip, which was kept open a considerable time with rather doubtful advantage. A course of mercurial friction upon the limb was pursued repeatedly, and the constitution was kept moderately under its influence, as shewn by the appearance of the gum : but, with regard to the state of the nerve, the mer-



curial action did not produce any apparent effect. *Liquor arsenicalis* was administered, with a small addition of opium; but it caused painful irritation of the stomach and bowels. *Colchicum* disagreed with the stomach, and did not appear to have any favorable influence on the complaint. Carbonate of iron was not more successful. The most decided advantage invariably attended the administration of opium as an anodyne. The black drop was taken in doses of eighteen drops three times a day, joined with a saline aperient; and the patient was furnished with pills, containing in each gr. i. pulv. opii crud. gr. ss. pulv. Jacob.—of which one or two were to be taken on any emergency of pain. By this treatment, a complete dominion was obtained over the severe sufferings of the disease. The returning pain was met by the regular dose of the opiate. The recovery was slowly progressive, but was quite accomplished in the course of two or three months after the removal of the acute symptoms. The dose of the anodyne was gradually lessened, and latterly was taken in the following draught: *R Sp. ammon. aromat. 3ss. decoct. aloes comp. infus. cascarill: mist. camph. āā 3ss. M.*



A course of warm sea bathing proved highly useful. Friction for an hour daily, and the use of an embrocation, as mentioned in the last case, afforded evident advantage, in assisting to restore the power of the muscles and the healthy circulation of the limb.

In 1823, this gentleman experienced a slight relapse of sciatica, in which the anodyne treatment was as successful as before, after the failure of colchicum and subcarbonate of iron, both of which in succession had been tried before, as the patient was desirous of avoiding opiates, from being much engaged in mental exertion.

The application of the caustic issue in this case was decided upon in consultation, and was probably useful, although the patient himself was not of this opinion. From my experience in other cases attended with even a greater severity of symptoms, I have witnessed recovery without having recourse to this troublesome remedy ; and, important as it is, when the synovial membrane of the hip joint is the seat of disease, I should not be disposed to recommend it as forming part of the regular treatment for sciatica.



Mercurial medicine used to the extent of ptyalism, appears to me an objectionable treatment as applying to the disorder of the nerve; but there are cases in which a wrong state of the liver, co-existing with the sciatica, may render it proper.

The alterative use of mercury, in conjunction with suitable aperients, will in most cases be attended with advantage, so employed that it does not debilitate the stomach of the patient; for this consideration must always be balanced against the benefit which may be afforded to the secretory function of the liver.

### CASE III.

Sciatica, produced by a bruise from a fall. Cure by the use of the black drop, after the failure of liquor arsenicalis.

I AM favoured with the particulars of the following case by Mr. King, of George Street.

A gentleman received a violent fall from his horse in hunting, by which the glutæi muscles were much bruised. After the abatement of swelling and inflammation, a severe and constant pain remained in the hip, which, in a short time, extended down the thigh and leg in the course of



the sciatic nerve. Much medical treatment in the country was tried without success. He came to town, and placed himself under the care of Sir Astley Cooper and Mr. King. At first the liquor arsenicalis was administered, and external stimulants were used, without the least success. The patient was then directed to confine himself entirely to bed; and the black drop was given in divided doses, three and four times a day, in a saline draught with the addition of decoction of bark. By this treatment the cure was effected in the space of three weeks.

#### CASE IV.

Rheumatism of the knee and loins; and, at a subsequent period, distinct sciatica. The recovery very gradual, but permanent.

THE following case exhibits very strongly the rheumatic diathesis, and the obstinacy with which the chronic form of the disease, in particular constitutions, resists every plan of treatment which can be devised. A gentleman, aged thirty-seven, of the mixed temperament, of full habit, and rather corpulent, was first affected, at the age of twenty,



with a pain in the knee-joint, which continued more or less troublesome for a year. Leeches proved more useful than any other of the various remedies which were employed ; but, according to the patient's belief, the disease wore itself out *with time*. Twelve years ago, on a cold day, when feeling in good health, he was suddenly seized with lumbago. This attack appeared to have yielded to the prompt treatment which was used ; but soon after, on fresh exposure to a north-east wind in an open carriage, the lumbago returned severely, and also the pain of the knee affected on a former occasion. He remained ill four months. A course of bark, the extract and decoction in large doses, and the application of flannel bandages, appeared to be of real service, after other means of treatment had failed. He remained quite well about three years, and was capable of strong exercise both in walking and riding.

In January 1818, when exposed to the east wind on the outside of a carriage, he felt himself suddenly seized by the cold on one side of his body ; and, two days afterwards, the lumbago and



pain of the knee came on severely. Much alarmed, and with the idea of arresting the progress of the disorder, he went immediately to Bath ; and there used the hot bath and pumping on the affected parts for one month ; also taking aperient and alterative medicines. He returned to London not benefited. Blood was taken freely from the loins by cupping, and from the knee by leeches. Electricity was next used, and various embrocations were applied. No advantage was obtained. He went to France in June, and perspired profusely every day with exercise, the weather being intensely hot. The pain now quitted the knee and part of the loins, but took the track of the sciatic nerve, from the hip to the calf of the leg. Walking exercise invariably and almost immediately brought on pain, which he described as continued and severe, and accompanied with spasmodic shootings ;—very much the sensation of cramp ; and this was experienced most in the calf of the leg. It was in vain that on two occasions he exercised the fortitude of walking a great distance, in the hope that it might be remedial. Rest always relieved, exercise always aggravated his sufferings.



As there was abundant evidence in this case that the liver was in an unhealthy state, and as the patient found calomel disagree with his stomach, he was directed to rub in half a drachm of unguentum hydrargyri fortius every night. He so much exceeded this direction, that he produced a violent salivation, by which the sciatic pains were not at all relieved. I mention this as an instructive circumstance. Some time afterwards an alterative use of the hydrargyrus c. cretâ was very useful. With this patient the black drop, on the principle of treatment before stated, was tried with only temporary relief; nor was the effect of any other medicine very satisfactory. I must observe that this gentleman was very deficient in steadiness of attention and perseverance in the use of remedies.

A course of Cheltenham water was taken with advantage to the general health, but without the least influence on the local symptoms. As a last resource, he went to Weymouth, to try the effect of a removal to a residence more favorable than that which he had occupied, which certainly was damp and exposed to cold winds; to try also the effect of complete repose, and, above all, a steady



course of warm sea bathing. At the end of three months, he obtained a cure. It deserves to be mentioned, that during a whole month he did not derive any sensible advantage from the bath ; but latterly he became quite sensible of its happy influence. The patient has continued perfectly well.

In reflecting upon all the circumstances of this interesting case, I am persuaded that the fulness of habit, and a surcharge of the vessels of the liver, were favorably removed by the use of the mercurial treatment and of Cheltenham water, so as to lay a foundation for the benefit afforded by warm sea bathing. The local disease was evidently involved in a wrong state of the constitution, and time undoubtedly had a great share in adjusting the healthy balance.

In 1821 this gentleman experienced a return of lumbago, which was soon succeeded by sciatica in almost as painful a degree as I ever witnessed this complaint. It was evident that the circulation connected with the vena portarum was again become obstructed. The primary treatment therefore was directed to the state of the liver, and the digestive organs generally. Afterwards, anodyne medicine



at regular intervals, administered so as to counteract the return of pain, produced the most satisfactory results\*. The patient considered that he derived great benefit from the almost daily use for some time of Scott's acid bath, in which he immersed the body for twenty minutes, at a temperature of 95.

This gentleman's recovery was slow, but it has been permanent. By paying due attention to the state and action of the bowels, and by avoiding careless exposure to damp and cold, he has escaped all troublesome attack of rheumatism since 1821.

#### CASE V.

Neuralgia Rheumatica, affecting chiefly the sciatic and brachial nerves. Liquor arsenicalis and blisters proved very beneficial.

A GENTLEMAN, aged thirty-three, who had never

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\* This patient perspired much in bed, became chilled from lying in sheets, and could not bear a great weight of clothes. He derived considerable comfort and advantage from lying in cotton blankets, which he had procured from France. I believe they are manufactured in Germany. Mr. Eyre, Hosier, New Bond Street, has, at my request, undertaken to procure a supply of this description of blanket; and I recommend its use very strongly to the rheumatic invalid.



been subject to rheumatism, but had for a long time been placed in circumstances of extreme mental anxiety and bodily fatigue, was exposed to rain, and remained several hours in wet clothes. On the second day afterwards, he felt pain in the left sciatic nerve, and in the ligaments of several of the vertebræ. Various parts became affected in succession, as the ligament connecting the os coccygis, the ligaments of the hip joint, and of the right shoulder joint; but the permanent suffering was in the left sciatic nerve, and in the brachial nerve of the right arm. I scarcely ever witnessed greater torture than was experienced by this patient. The rheumatism affecting the ligaments had been relieved chiefly by means of Dover's powder and the warm bath; but this treatment had scarcely produced any useful influence on the painful nerves. He became reduced in flesh, much debilitated, and had a frequent pulse.

He derived great relief from a mixture of antimonium tartarisatum, liquor opii sedativus, and vinum colchici, taken at night; and was materially benefited by the use of liquor arsenicalis in the day. Blisters were applied repeatedly to



the thigh and arm, with decided advantage. In the first instance, this benefit was not so manifest ; but the repetition of the blisters was unquestionably curative.

By these several means the acute sufferings of the patient were removed, and afterwards he visited Buxton with advantage. He commenced with the tepid bath. The natural baths and pumping appeared to be decidedly useful in strengthening the loins and back generally, but had not any positively useful influence on the sciatic nerve ; and at first, from an injudicious application of the pump, increased irritation was produced. This gentleman was assisted by local means of treatment, and received benefit from having occasional recourse to restorative and tonic medicines, as sarsaparilla\*, sulphate of quinine, and carbonate of iron (separately) ; but the friendly hand of time was still necessary to bring about a perfect recovery.

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\* In this instance, the infusion of the cortical part of sarsaparilla in lime water was taken with the addition of hot milk simply. The addition of either extract or syrup was found oppressive to the stomach.



## CASE VI.

Neuralgia Rheumatica, commencing in the popliteal and fibular nerves, and afterwards extending to the sciatic. Leeches and blisters useful, and material benefit afforded by liquor arsenicalis.

A GENTLEMAN, aged fifty, tall and robust, soon after exposure to rain in riding, and remaining in wet boots, experienced pain in the popliteal and fibular nerves of the left leg, together with rheumatism of the left hip joint and right shoulder, the latter joint having some time before been dislocated. When I was first consulted, the complaint was confined to the nerves, but had extended to the sciatic, which was severely affected. He complained of a strong throbbing in the middle and posterior parts of the thigh and of the leg, with an occasional sense of burning, as if a hot iron was applied, while the foot was affected with coldness and numbness. He had often the sensation of an insect running under the skin in the course of the nervous branches, and was distressed with cramps and jactitations. This was a very urgent case, and had been of long duration.



Leeches and blisters, repeatedly applied, were useful. The intensity of suffering had always taken place most at night, and became relieved by the mixture mentioned at p. 517; but the medicine which produced the most curative effect in this case was the liquor arsenicalis. When it appeared desirable to intermit the use of this medicine, he took with advantage oleum terebinthinæ with vinum colchici.

In the concluding part of the treatment of this case, the plaster of soap cerate and opium to the most affected parts, with a firm roller of flannel, carried from the foot up to the hip and around the loins, afforded both support and comfort.

This gentleman afterwards used the shower bath, and obtained a perfect cure in the course of a few months.

#### CASE VII.

Chronic sciatica, afterwards becoming acute. The chief treatment consisted in the use of anodyne medicines. The convalescence promoted by a removal to sea air, and by the use of tonic medicine. A permanent cure effected.

A GENTLEMAN, aged forty-six, slight, of deli-



cate appearance, and of the nervous temperament, never having before been subject to rheumatism, first, in the beginnig of 1817, experienced a slight aching pain in the left thigh, a little above the ham, which gradually ascended to the ischium. It was removed shortly by the use of Dover's powder and aperients ; but returned several times in the course of the year. At the end of February 1818, from a slight accidental strain, a sudden and most severe pain attacked the head of the sciatic nerve ; and, from that moment, the symptoms assumed the acute form, and pursued a tedious and painful course, causing entire confinement to the bed for seven weeks. The nerve, in its whole course, became most exquisitely painful, and was so sensitive that the patient dreaded the slight concussion occasioned by a person walking across the chamber. Cramps in different muscles of the limb were a severe symptom. There was but slight constitutional fever. There was often a distinct remission of the symptoms, the pain recurring with renewed violence ; and, as Cotunnus observes, " seeming to pause from one attack, to collect and increase all its strength for the next."



I do not remember to have seen an exact period of intermission in the symptoms of sciatica. The anodyne plan of treatment succeeded perfectly in this gentleman's case; and the black drop was the opiate employed at intervals of four, six, or eight hours, according to the recurrence of pain. Due attention was at the same time paid to the state of the digestive organs, and to the biliary secretion. Considerable relief was afforded to the nerve by the daily application of a bag of heated salt. Some relapses were incurred from premature exertion of the limb; and the recovery was so gradual that it was not perfectly accomplished before the end of October. He made trial of electricity by sparks, for two or three weeks, without injury, but without any sensible benefit. A removal to the sea side in the autumn was attended with great advantage; but the patient was so delicate in his general health, that he found the warm bath too relaxing, and he trusted to the influence of the air, of which he availed himself by sailing on the sea in favorable weather. Sarsaparilla proved useful, and, occasionally, it was exchanged for the sulphate of quinine.



It is highly satisfactory to observe, that the cure effected in this case has been permanent. This gentleman has never had a return of sciatica, or of rheumatic affection of the least importance, since 1819. In the winter following his recovery, he wore leather drawers over flannel, and thought himself usefully protected in this manner.

In cases of acute sciatica, the sufferings of the disease do not allow the patient the choice whether he shall surrender himself to the entire repose of the bed, or attempt bodily exertion with a view to overcome the morbid irritability of the muscles; and, even in the chronic form of the complaint, it usually happens that efforts to use the limb tend to aggravate pain and irritation; and, if by accident any sharp concussion be given to the tender nerve, acute symptoms are sometimes reproduced. Notwithstanding the general truth of this statement, we learn that strong exercise has in one instance proved curative.

In the third volume of the Medico-Chirurgical Transactions, the late Dr. Marcet communicated a very interesting account of the cure of sciatica



by means of excessive exercise in walking, when the patient was warmly clothed in flannel.

The ingenious author of the case, who was himself the patient, relates as follows the effects of the proceeding which he adopted :

“ With the utmost difficulty I proceeded half a mile ; and the pain I suffered contributed not a little to the effect of the exercise in promoting perspiration. I returned home in a profuse sweat, rubbed myself dry before a fire, and went to bed. In about an hour I got up, found myself very much fatigued, but in other respects not worse. Forty-eight hours after this I repeated the same kind of exercise, and found that I could walk a mile with as much ease as I walked half that distance on the first day. My general sensations were the same as before ; but, as the fatigue diminished, I thought I could perceive an amendment in my rheumatic pains. Two days afterwards I took my third walk, proceeding as before ; and after it I had a better night, less interrupted by pain than any I had enjoyed for eighteen months. From that moment I looked forward with confidence to a cure, and I have not



been disappointed. Every succeeding walk has diminished my sufferings ; and I may safely say, that, after the sixth, I was as free from pain as I had ever been in my life."

This patient had previously made trial of a course of calomel, taking from two to three grains of it, with a certain quantity of opium, every twenty-four hours, during six weeks ; seconding its efforts with frequent blistering. He adds, " I have applied as many as three blisters at a time, from my hip to my foot, and renewed them as soon as the skin was sufficiently healed to allow a fresh application. By other medical advice since that period, I have tried bathing in warm sea water, in artificial sulphurous waters, the same as those which had afforded me relief in Paris, and in the Bath waters. I have also used the dry pump there, vapour baths, and heated air, friction, cupping, leeches, and electricity. I have taken internally nitric acid, James's powders, guaicum, nitre, cicuta, hyoscyamus, and the eau medicinale ; bark ; and, finally, arsenic ; but all to no purpose. Were I to state in general terms the effect of all these, I should say that cicuta, hyoscyamus, and the eau



medicinale procured me temporary relief ; and that bathing of whatever kind usually made me worse. In short, I had nearly exhausted the materia medica, and I had no hope left but in a more favorable climate."

Of his particular method he gives the following description : " I usually proceed to my sweating walks in the following manner. Next to my skin I wear stockings, drawers, and a shirt, all of fleecy hosiery. Over these I put one, two, or three pair of flannel drawers ; one, two, or three flannel waistcoats ; and round my hips and loins I gird six yards of thick flannel ; making, besides the drawers and waistcoats, eight thicknesses of flannel on the chief seat of pain, and the origin of the sciatic nerve. Over all this I wear warm pantaloons and a great coat. When I have walked one or two miles, more or less, according to the heat of the day, I am generally in a profuse perspiration. I return home, take off my wet clothes, have a couple of changes of well aired flannel, and then lie down upon a bed not warmed. I use no means to excite further perspiration after the muscular action is over ; but, on the contrary, rather incline



to check it as speedily as I can, taking particular care however to avoid catching cold.

“ I do not perceive that the quantity I perspire, has any influence on the efficacy of this remedy. I imagine that a violent action produced in the general system is the chief cause of its salutary effect. In consequence of this opinion, I cease the exercise the moment that a very increased action is well established. This is fully produced with the above quantity of clothing in moderately warm weather, by walking from one to two miles. For patients who are very much disabled, the quantity of clothing might be increased, and the distance diminished. When the excitement is well established, I find my pulse rise to between 90 and 100, and it is full and strong.” Notwithstanding the apparent simplicity of this method of practice, and its remarkable success in this case, I must observe, that it is too active a plan of treatment to be indiscriminately employed; and, indeed, should never be resorted to without medical sanction.



## CASE VIII.

Acute sciatica, accompanied with rheumatic inflammation of the ankle and shoulder. The patient of a full habit, and laboring under congestion in the abdominal viscera. Antiphlogistic treatment, with anodyne, alterative, and aperient medicines, together with local depletion and blisters, constituted the chief means used. Convalescence commenced in about five weeks.

A GENTLEMAN, aged 56, of the nervous temperament, corpulent, of full habit, and usually enjoying good health, found himself affected on first rising from bed, at the end of February 1827, with pain and muscular rigidity in the outer part of the left thigh, which increased considerably in the course of the day. He attributed this to cold. He was of the medical profession, and had been unusually engaged in fatiguing exertion. At this period he was in a plethoric state. Although a temperate person, he had been in dinner society of late more frequently than usual. At the onset of the disease he used a hot bath, took colchicum and Dover's powder, and afterwards aperient medicine. His avocations being urgent, he tried to resist the disease, but in vain. He was soon compelled to keep his bed; and such was the rapid increase of the symptoms,



that for six days he lay without the power of moving the body in the least degree. He experienced exquisite pain in the whole course of the sciatic nerve. He had a catarrhal cough, and he described that the act of coughing or sneezing so disturbed the painful nerve, that its whole course seemed to be accurately pointed out, and he felt as if electric shocks had been passed through a part previously rendered exquisitely tender. There was extreme tenderness on pressure. The outer ankle was next affected with pain; and in this part and the hip he had the sensation as if the integuments were hooped with heated iron. The whole limb seemed to be immensely heavy. Two days afterwards, the external ankle appeared swollen and very red. The severe pain was now divided between the ankle and the course of the sciatic nerve; but various other parts of the body were affected occasionally; and there was considerable permanent pain between the ribs on the right side. He frequently experienced severe cramps in the gastrocnemii muscles, lasting several hours.

A further period of five or six days having elapsed, the pain had materially abated in this



limb, when the right shoulder was attacked, and became the principal seat of suffering. It would be difficult to describe the continued torture which the patient experienced in this part. It was of less absolute severity than that which had affected the sciatic nerve; but the power of endurance lessened with the continuance of disease. The humerus was extremely tender to pressure. The disease appeared to be both in the ligamentous and tendinous textures. At the insertion of the deltoid muscle, there was extreme pain and soreness. The integuments were rather swollen; but there was no redness of surface. The very slightest movement of the arm was rendered impossible. Soon afterwards the pain extended to the wrist and hand.

In the progress of the illness, the patient frequently complained of sudden and transient gleams of intense heat, in various parts, as in the affected shoulder, the left pectoral muscle, groin, and ankle. He compared it to the sudden passing over the skin with a hot iron. Various other sensations, which it is impossible for language accurately to define, might be mentioned; but it would



be difficult to represent in any adequate description the sufferings with which this gentleman was afflicted for the space of five weeks, notwithstanding all the means of treatment which were used with unremitting attention. The pulse scarcely ever exceeded 72, his natural pulse being 68. The tongue was always white and sometimes much coated. There was usually nausea, and sometimes active sickness, partly imputable to the influence of medicines. The bowels were torpid, and the biliary secretion was deficient and very unhealthy. There was remarkable fulness in the right hypochondrium, and tenderness on pressure over the epigastric region. The urine was usually scanty, high coloured, and without sediment. There was an extraordinary degree of strangury before and some time after the application of blisters; and there was a slight gleety discharge. The skin yielded freely to the influence of sudorific medicine, and was always temperate, although there was occasional flushing of the cheeks. The sensorium was never affected to the degree of delirium. There was sometimes an extreme degree of nervous depression. The treatment was neces-



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sarily various, and adapted to the changing circumstances of the disease. To the lower limb, leeches repeatedly, cupping twice freely, fomentations prepared with belladonna and opium, poultices simple and medicated, evaporating lotions, and repeated blisters, were used in succession; and similar treatment, with the exception of cupping, was employed for the shoulder; to which account may be added the plastering of the skin with undiluted extract of belladonna, plasters with soap cerate and emplastrum opii, and next with pitch. Combed wool was also used when the weather was cold, and this was a source of comfort.

The internal means of treatment were even more various. In the first instance, mercurial aperients were taken, but when the sciatic nerve became painful to a degree of torture hardly to be described, and the least movement of the body was consequently almost impossible, anodyne medicine was alone admissible. Half a drachm of liquor opii sedativus and a  $\frac{1}{4}$  of a grain of antimonium tartarisatum were administered in a saline draught every four or six hours, and thus the patient's sufferings were rendered supportable. At a subse-



quent period, this opiate, instead of agreeing as at first, caused head-ach and nausea, and was exchanged for the acetate of morphine, as at p. 106, with perfect success. The patient was usually rendered tranquil in twenty minutes, and attributed much of the agreeable sedative effect to the union of the hydrocyanic acid with the acetate of morphine.

At the period when the stomach was most irritable, leeches were applied to the epigastric region with advantage. The symptoms sometimes appeared to have a marked remittent character; and perspiration being occasionally excessive, followed by general coldness of surface and increase of pain, sulphate of quinine was administered with temporary advantage; but its exciting influence seemed too considerable to allow of its continuance. *Liquor arsenicalis* was tried without apparent benefit, and with some disagreement. The hydrocyanic acid, in small doses, appeared to act usefully as a sedative. When the severity of the disease was transferred from the thigh to the shoulder, alterative and aperient medicines were very duly administered; and, for a few days, the



gum was slightly sore from the influence of the mercurial doses. Unceasing attention was paid in regulating the action of the liver. Lavements were often resorted to in aid of the usual medicines. The diet was throughout abstemious, and for a time was limited to asses' milk, bread, and tea.

The patient quitted his bed for the first time at the beginning of April; but he could not sit up for more than an hour, even at a period ten days later, in consequence of severe accession of pain in the shoulder, and occasionally in the sciatic nerve; for the latter part and the ankle continued to be very considerably painful occasionally.

The patient's habit was now much and very favorably reduced. The abdomen was soft, and the right hypochondriac region was free from the unyielding distention which was so evident in the commencement of the illness, and which was accompanied by some degree of soreness on pressure. The epigastric tenderness was removed. The natural functions were performed with more regularity than before.

In a review of the circumstances of this inter-



esting case, which my limits have only permitted me to describe concisely, we are led to the conclusion that this was an acute rheumatic seizure of the sciatic nerve, afterwards extending to other textures, and invading the constitution of a patient whose abdominal viscera were in a state of that kind of congestion which so commonly precedes a severe and tedious fit of gout. In forming therefore our prognosis of the probable duration of rheumatic neuralgia under these circumstances, we must estimate the amount of visceral error which has been very gradually and insidiously taking place. Many weeks must be required in order to effect the requisite change in the condition of the viscera ; a quick cure is impossible. The use of opiates, when manifest torpor and error exist in the functions of the liver, is not proper on principle ; but it becomes indispensable to the alleviation of suffering when so intensely severe as in this case. The anodyne treatment will not prove so curative when the action of the liver and the digestive organs altogether are much disordered, as when the nervous system is more exclusively affected.



The local application of extract of belladonna had not any influence in relieving the pain, although used in a concentrated state. There were no characteristic symptoms to indicate that the belladonna was absorbed.

It seems remarkable that in this case, although the patient was of full habit, the action of the heart and arteries was seldom in any degree increased. In the first week of the illness the pulse was fuller than natural, and rather hard. Sensible relief was experienced from the repetition of the local bleedings, and from the repetition of the blisters, indicating the existence of inflammatory action in the nerve. In the first instance these remedies did not appear useful. The evaporating lotion, p. 120, relieved more than the narcotic applications, after the depletion just stated.

The condition of the mucous membrane of the stomach and intestinal canal in this case demanded particular attention in the advanced stage of the disease. The symptoms of disorder in this internal texture were, the milk-white tongue, almost constant nausea, some tenderness on pressure about the stomach, and irritation easily in-



duced in the bowels, notwithstanding there was difficulty in procuring full and relieving evacuations. Leeches applied as already mentioned, the mild nutriment of asses' milk, the use of minute doses of the hydrocyanic acid, the avoiding irritants and stimulants, appeared to be very favorable in removing this state of error in the mucous membrane, which we considered to be that of chronic inflammation.

At a period now of seven weeks from the attack, the patient is favorably convalescent. He has lately taken subcarbonate of iron with marked advantage.

He considers that he has also derived much benefit from the use of "native oil of laurel,\*" a remedy in use among the North American Indians, for rheumatism and other disorders of the joints, applied to the affected parts by means of friction. It appeared manifestly to have the effect of quickly removing pain from the shoulder and

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\* See No. XXXV of the Journal of the Royal Institution for an account of this vegetable production, by Dr. Hancock of Demerary.



from the thigh, which was increasing severely when he began the friction ; and this good effect was produced several times.

As my present volume will not admit of my detailing any further examples of sciatica, I shall abstract from my register of cases a few more practical observations, both in regard to general and local treatment.

When the nervous system is in a state of great irritation, and the pain of the disease excessive, the anodyne treatment is the most desirable to be tried ; it being always a point of attention, at the same time, to regulate the digestive functions, and the action of the bowels. If opium in any form should disagree with the patient, conium is usually the most useful substitute.

Liquor arsenicalis sometimes exerts a specific power over rheumatic neuralgia, but should be given with caution, and not be very long continued.

Oil of turpentine alone, or joined either with the vinum colchici or the extract from the acetum colchici, sometimes proves successful.

In one instance, I saw remarkable relief af-



forded in sciatica by vinum colchici alone ; but, for the most part, colchicum has not appeared to be permanently beneficial in this complaint. In the same proportion that sciatica has been associated with error of the biliary system and digestive organs generally ; alteratives, aperients, and regulated diet, have produced both palliative and curative effects.

When the nervous system has been universally in a state of debility, subcarbonate of iron has been useful ; but has rarely, in my experience, appeared to possess a specific power in neuralgia rheumatica.

I have the same observation to make on the properties of the sulphate of quinine.

The regular use of white mustard seed has, in some instances under my observation, been useful.

The warm bath may prove useful on general principles of treatment, but does not in a direct manner relieve sciatica.

A douche of vapor is much more effectual in relieving the affected branches of nerves.

The Buxton bath is less efficacious in the



treatment of sciatica than of the other forms of rheumatism. The shower bath, employed in the advanced stage of convalescence, is a valuable remedy, and in its tonic influence on the whole system exerts a useful control over the affected nerve.

When there is evident sign of inflammatory action in the nerve or contiguous parts, the abstraction of blood by means of cupping or leeches will be proper. When the affected nerve lies near the surface, leeches are to be preferred. It usually happens in sciatica that, notwithstanding there may be increased vascular action affecting the nerve, it is not of the kind which receives relief from depletion of the blood vessels; and blisters prove more serviceable.

But in order to obtain decided benefit from the application of blisters, several should be applied in succession, with such frequency as the state of the parts may allow; and this mode I have found more successful than the keeping up ulceration by irritating ointments. When the nerve is affected in different parts of the limb, the situation for the application of the blister should be varied.



It sometimes happens that a first or even a second blister does not appear useful, and may even cause an increase of painful irritation ; and yet, by perseverance, material benefit is eventually obtained.

I have not seen any good effects obtained from the employment of tartar emetic ointment in this complaint.

In one case I saw great benefit produced by rubbing in camphorated mercurial ointment along the course of the affected nerve.

In acute sciatica, stimulating liniments and friction are hurtful ; and, by the converse principle, narcotic applications, as the belladonna fomentation, or plaster, or opium plaster, mentioned in this Treatise, prove soothing and useful.

In chronic sciatica, and in proportion as there appears to be a deficiency of nervous energy, shewn by remarkable coldness of the limb, and weakness of the muscles, friction and stimulating liniments, oils, or substances in the form of powder\*, have a useful influence. When such means

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\* As, for example, a mixture of flour of mustard, salt, and black or even cayenne pepper.



fail, a douche of hot water should be tried, and which may be rendered more powerful by impregnation with sulphuretted hydrogen gas, as explained at page 385.

On the same principle of exciting action, electricity will be proper.

The support of a roller from the foot upwards usually affords comfort and benefit. In cold weather it should consist of flannel ; and, if the nerve be affected near its origin, and especially if lumbago be joined with the sciatica, it is advantageous to extend the roller firmly around the loins.

I have now to add a few examples of the rheumatic affection of other nerves.

#### CASE I.

Neuralgia Rheumatica affecting the femoral nerve. A cure effected by means of the subcarbonate of iron.

A GENTLEMAN, aged 49, tall and muscular, usually enjoying good general health, first experienced rheumatism in the muscles of the chest, and in one arm ; the pain in the course of a fortnight changed its situation to the front of the thigh, pro-



ceeding from the upper part near the groin. The complaint had existed some months when I first saw the patient. The pain returned in paroxysms at irregular periods, and was of such intense severity, that full and repeated doses of opium served only to mitigate the violence of suffering ; but this medicine so much disagreed, that he dreaded rather than courted its influence. He had made trial of sulphur baths, twelve in number, and had applied two blisters.

There was a high degree of nervous irritability affecting the constitution of this gentleman. He had twitchings of the face, frequent cramps in the muscles of the lower extremities, and jactitations at night.

I prescribed half a drachm of the subcarbonate of iron with eight grains of the subcarbonate of ammonia, three times a day. At the end of the third day the amendment was most satisfactory, and by perseverance in the use of the medicine, he obtained a cure in three or four weeks.



**544 NEURALGIA OF FEMORAL AND TIBIAL NERVES.**

**CASE II.**

Neuralgia Rheumatica, affecting the femoral nerve and cutaneous branches of the tibial nerve. By anodyne treatment a cure was effected.

A GENTLEMAN, aged 33, slight and of the nervous temperament, after exposure to wet, suffered rheumatism in one shoulder and in the loins. Recovering from this, he was attacked suddenly with severe pain in the front of the thigh ; and, shortly afterwards, it extended over the outer side of the tibia. He had suffered so severely, that he had accustomed himself to take, about once in twenty-four hours, a tea-spoonful of laudanum.

A little below the knee the veins appeared remarkably full, and the skin was knotted. At this part there was much tenderness on pressure, and it was often the seat of the most exquisite suffering.

Leeches were applied twice, with great advantage. He took the black drop in a saline draught three times a day, and the bowels were regulated by means of a mild senna mixture.

A cure was obtained in about a month.



## CASE III.

Neuralgia Rheumatica, affecting the brachial nerve ; much benefit obtained by electricity.

A GENTLEMAN, aged 22, who had three years previously suffered from acute rheumatism, was attacked with pain in the internal part of the left arm, above the shoulder, after getting wet in driving. He had imprudently discontinued wearing a flannel waistcoat. There was no external appearance of disease. The pain, although troublesome in the day, was most violent at night, and returned periodically. It was excruciating. He made use of embrocations and one blister, without success. It had continued nearly three months, and the arm was become enfeebled and rather smaller than the other. He had paid attention to his bowels, and had taken occasional doses of opium. He then had recourse to electricity, and of its effects he gave me the following account. "The operation of strong electric sparks at first produced great pain with violent perspiration ; this increased pain continued throughout the day.



The electricity was repeated every day for a fortnight, and the pain was diminished by its second application, and was gradually removed without any other remedy being used."

#### CASE IV.

Neuralgia Rheumatica, chiefly affecting the branches of the brachial nerve. Liquor arsenicalis proved successful, the sulphate of quinine having failed to give relief.

A GENTLEMAN, aged 38, of rather delicate constitution, was attacked, from exposure to wet, with rheumatic pains in the arms, shoulders, and neck. After a short time, the great severity of suffering was fixed in the right upper arm. The pain came on about eight in the evening, and reached its utmost intensity about two in the morning. It was evidently seated in the nerves. He could not remain in bed; and, as the complaint had lasted many weeks, he was considerably reduced in strength when I first saw him, and was subject to profuse perspirations at night. He could scarcely use his hands in writing; he complained of a remarkable sense of weight in the arm, and the whole of the arm was affected with tremor. He



made trial of the sulphate of quinine without success, and it disagreed much with his stomach. I then prescribed liquor arsenicalis in the dose of six minims, three times a day ; and, for a few nights, a full dose of the black drop. The result of this treatment was most satisfactory. The patient obtained a cure in a short time. He found benefit from wearing the opium plaster as at p. 374, for the first fortnight ; and afterwards, regular friction was used to restore the tone of the muscles. Finally, he derived great benefit from the shower bath.

#### CASE V.

Neuralgia Rheumatica, affecting some branches of the articular nerve of the shoulder. Notwithstanding the favorable influence of warm air, warm baths were not useful ; and the cold shower bath proved curative.

A GENTLEMAN, who had exposed himself to cold when under the influence of mercury, became affected with a pain of the shoulder joint on every occasion of passing from a warm to a cooler temperature ; so that while it lasted he was incapable of using the arm. He considered that if he could continue constantly in an equal, warm temperature,



he should escape all inconvenience. The pain occurred instantaneously upon a door or window being opened near him, and ceased on his approaching the fire. It was most severe. He had used cupping, blistering, and warm baths, without any relief. He had occasional excessive perspirations, and was weak.

I directed the shower bath, which, after the third time, was used cold ; the sulphate of quinine with sulphuric acid ; and the application of the opium plaster. After six days from the commencement of the treatment, this gentleman lost his complaint entirely. I was highly satisfied with the useful agency of the shower bath in this case.

*Hemicrania*, although a species of nervous disease, sometimes assumes much of the character of rheumatism. A young lady, at present under my care with this complaint in its distinct and intermittent form, has several times experienced a sudden renewal of the pain on slight exposure to cold or damp air.

The nerves of the teeth are occasionally affected with rheumatism, quite independently of caries.



I have seen many severe cases of this description\*. The treatment is to be conducted on the same principles which guide us when other nerves are affected. Constitutional treatment is alone to be relied upon for the cure, although palliative relief may be obtained from local remedies, as the topical application of leeches, blisters, and liniments. The liniment which I have found very useful, is that mentioned at p. 328. If it fail, the following may be used : R Extract. belladonnæ, ʒi. linim. camph. comp. ʒi. M.

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\* I have known the tooth-ach, arising from exposure of the nerve, quickly and completely relieved by the application of a drop of hydrocyanic acid.



### ON NEURALGIA SPASMODICA.

THE more familiar term of *Tic douloureux* is so far expressive of the disease now under consideration, that the pain which affects the unfortunate patient comes with all the suddenness of an unexpected blow ; but the term *Neuralgia Spasmodica*, is more descriptive and classical. The seizure of pain is truly in the manner of spasm, and a nerve or nervous filament is invariably the texture affected.

As the branches of the fifth pair of nerves are more frequently the seat of this disease than any other nerves of the body, some authors have confined their appellation to the description only of the affection of the face ; but, as any nerve in the body may be affected in an equally distinct manner, I shall borrow from Dr. Kerrison\* the term *Neuralgia Spasmodica*, using it in an extended sense.

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\* *Tentamen Medicum inaugurale de Neuralgia faciali Spasmodica*, 1820.



A severe case of this disease produces a degree of pain not to be exceeded by any other kind afflicting the human body ; and were its duration equal to its intensity, the endurance of it would be beyond the measure of human fortitude.

The introduction of the use of the subcarbonate of iron in large doses forms an æra in the treatment of this most painful disease ; and it is with great satisfaction I refer such readers as have not yet perused Mr. Hutchinson's important work on the subject to his encouraging narrative of successful cases. It requires long and collective experience to determine the true value of remedies. I desire not to be considered as undervaluing the merit of Mr. Hutchinson's treatment, in now relating instances in which it failed. We must not expect the remedy for any disease to be uniformly successful in every case to which it is applied. The ample testimony offered by Mr. Hutchinson and his correspondents, in favor of the subcarbonate of iron, is such as fully to command our regard and confidence.

I proceed to offer my account of the disorder in the statement of a few cases.



## CASE I.

Neuralgia Spasmodica of all the branches of the fifth pair of nerves, and of the portio dura of the seventh pair, unsuccessfully treated. The patient, after several years of suffering, died from apoplectic seizure.

A GENTLEMAN, aged 55, tall, robust, plethoric, and, before the invasion of this disease, of the most healthy appearance, subject to occasional regular gout from the age of 43, first perceived the attack of tic in the right eye, and fancied that, as he was getting into his carriage, the coachman had accidentally cut his eye with the whip. He had been suffering from the disorder for three years when I first visited him. This was the most urgent case of tic douloureux which has ever come within my observation ; and it would be difficult in any language to convey an adequate idea of the tortures experienced by the unfortunate patient.

He represented the nature of the pain in these various descriptions—as if stabbed in the eye by a sharp instrument ; as if hot needles were suddenly forced into the globe ; in the short sleeps which occasional intervals from severe pain allowed at night, he would dream that some one was dig-



ging out the eye ; and this was the prelude to awaking suddenly in agony.

Always at the instant of the tic the body was thrown into violent contortion ; the breath suspended, with manifest efforts of fortitude and resistance ; he experienced the instantaneous sensation of a flash of fire ; a suffusion of deep red overspread the cheek and forehead ; tears and mucus flowed copiously from the eyes. Membranous ophthalmia was a very troublesome part of the complaint. Sometimes the inflamed and swollen under lid was inverted, sometimes everted. There was great tenderness of the scalp.

Mastication of any solid food was frequently rendered impossible, from the dread of its being instantly followed by a paroxysm. Even speaking was often avoided for the same reason.

All the branches of the fifth pair of nerves were affected at different periods ; but in and about the eye, the greatest intensity of pain prevailed. The portio dura of the seventh pair was also affected.

During the day, the interval between the paroxysms seldom exceeded a quarter of an hour ; and often was not longer than two minutes. For the most part, the pulse and the natural functions



did not deviate materially from a state of health ; although occasionally there was great constitutional disturbance, either from the excessive irritation produced by pain or accidental causes, or from the influence of strong medicines tried in the way of experiment.

It may with truth be said, that scarcely any mode of treatment which could afford the least hope of benefit was left untried in this case.

A regular and severe paroxysm of gout occurred, but instead of relieving the pain of the tic, it appeared to add to its force, by rendering the system still more irritable.

Several branches of the nerves just beneath the sub-orbital foramen were divided by an eminent surgeon. On the following day, the patient complained of a horrid sensation, as if the eye were bursting ; and no benefit was derived from the operation.

At one period, the administration of two scruples of bark\* every two hours appeared to produce

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\* Dr. Kerrison, in his excellent Thesis, strongly recommends the use of bark, the state of the stomach and intestinal canal being previously prepared ; but very properly insists on its administration in large doses, in order to obtain its good effects.



such excellent effects, that, for twenty-four hours, so much relief was experienced as to afford great encouragement of benefit; but very shortly the pain returned with increased severity. Belladonna was taken in such free doses that a temporary loss of vision and taste ensued, with muscular tremors and great nervous depression. The liquor opii sedativus agreed much better than tincture of opium or the black drop; which preparations proved stimulating, and caused a suspension in the secretion of bile. The quantity sometimes taken was from 150 to 180 drops for the dose, three or four times in the twenty-four hours. If this medicine was used with greater freedom, the pain, although more subdued for a few hours, returned with increased violence; and occasionally severe sickness was experienced from a full dose of opiate.

Mercury was given at one period to the extent

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He thus expresses himself. "Actio cinchonæ curativa febribus et hemicraniis intermittentibus, ubique terrarum agnoscitur, et hujus effectus salutifer ægrotis *Neuralgiâ facialis spasmodicâ venatis* haud minus manifestabitur, si detur conditionibus idoneis jam memoratis: *his autem prætermisissis, aut male ordinalis, minime adjuvat.*



of producing ptyalism, and at different times as an alterative. Local bleeding by means of cupping and leeches, and general bleeding, were fully tried; blisters; ice to the immediate part and neighbourhood; sedative applications locally, as the hydrocyanic acid undiluted, and extract of belladonna.

The subcarbonate of iron received a full trial, without affording any benefit.

It will naturally be expected that a disease so unrelenting in its progress broke down the powers of the constitution, and reduced the patient to a state of great debility and exhaustion.

In about five years from the commencement of the disease, this unfortunate gentleman fell a victim to an apoplectic seizure.

An inspection was made of the brain, but not with a sufficient degree of minuteness to afford all the explanation which might probably have been obtained. No examination was made of the state of the affected nerves, or their bony foramina. The following is the report of the appearances which were found: "In the falciform process of the dura mater, at a little distance from the crista galli,



a small ossification was found, measuring three-eighths of an inch in length, rather less in breadth, and about a line in thickness. There was slight adhesion of the tunica arachnoides to the dura mater at the vertex. The vessels of the pia mater on the right hemisphere of the brain were full and turgid. Where the tunica arachnoides and dura mater had adhered, there was a milky appearance of the pia mater with effusion of coagulable lymph on the surface; the turgid state of the blood vessels of the pia mater was observed throughout its whole extent on the right side, but not at all on the left. The right lateral sinus was distended with blood, especially just before its termination in the jugular vein. The substance of the brain seemed to be softer than natural. The quantity of fluid collected from the ventricles amounted to  $7\frac{1}{2}$  drachms."

Could the ossification in the falx serve to explain the nature of this incurable disease? It is highly probable that there was organic change in the fifth pair of nerves, or in some part of the contiguous bony matter, as so little even of palliative relief was procured by any of the active means of treatment which were employed.



## CASE II.

Tic douloureux, affecting the ophthalmic, and superior and inferior maxillary branches, attended with symptoms requiring anti-phlogistic treatment and the use of mercurial purgatives; finally cured by subcarbonate of iron.

A GENTLEMAN, aged 66, robust, corpulent, and very plethoric, had been suffering from tic douloureux when I first saw him. The chief seat of pain was in the ball of the right eye; but it extended along the side of the nose down to the lower jaw; and occasionally the eyebrow was affected. At this period he was afflicted with the disease more severely than at any former period; and stated that, upon an average, he experienced the tic every ten minutes throughout the day, and often with almost as great frequency in the night. Using the handkerchief to the nose always brought on a paroxysm instantaneously. When this occurred, these were the usual symptoms:—forcible contraction of the orbicular muscles of the eye, and of the compressor naris; redness of the integuments all around the eye and nose; a copious flow of hot tears; involuntary placing of the open hand over the eye, with the general attitude of being overpowered by pain.

The patient stated that he had been subject to



regular gout, inherited from his mother, every year since the age of fifty. He had found a slight alleviation of the tic from a severe attack of gout, but not any permanent relief.

He had made trial of bark, and subcarbonate of iron, separately; but, as it appeared to me, without due preparation, and he had found his symptoms much aggravated by these medicines. Leeches had been applied to the temples, and immediately below the under eye-lid, with the effect of producing erysipelatous inflammation, and an aggravation of the tic.

He complained of occasional pain of the whole head, of giddiness, and of such a sense of weight, that in the morning on first rising he had great difficulty in raising his head from the pillow. The bowels were torpid; the urine was deficient in quantity, and deposited lateritious sediment very copiously. The tongue was furred; the pulse was full, rather hard, and 88. The indications for the immediate employment of the antiphlogistic treatment were manifest.

Twenty ounces of blood were taken from the neck by cupping; and twelve ounces from the



arm at each of three bleedings in the course of a fortnight. The blood was much cupped, with a thick buffy coat, except at the last bleeding, when its appearance was natural.

The following pills were given each night for a week, and afterwards each other night for a fortnight, when the gum appeared full and was tender: *R* Hydr. submur. gr. iss. pulv. Jacob. gr. i. extract colocynth. comp. gr. iv. extr. hyoscyam. g. iii. *M. et fiant pilulæ ii.* The following draught was given each morning early, and repeated at noon, unless previously the bowels were freely affected: *R* Potassæ carbon. 3ss. magnes. carbon. 3ss. magnes. sulph. 3i. ad 3iss. antimon. tart. gr.  $\frac{1}{4}$  ad gr.  $\frac{1}{2}$  aquæ puræ 3x. acet. colch. 3i. syrup. tolutan. 3i. *M. fiat haustus c. additione succ. citric. in statu effervescentiæ sumendus.* Some relief was afforded by the local application of equal parts of hydrocyanic acid and liquor plumbi acetatis.

Rigid abstemiousness was enjoined with respect to diet, which was chiefly fluid, and wholly unstimulating.

The state of the bowels showed the necessity of



purgative treatment. The excretions were of the most unnatural kind, being dark almost to blackness, or of olive green, and extremely foetid.

This mode of treatment had the most favorable result in reducing the fulness of habit, and evacuating the surcharged system of the vena portarum. The general symptoms affecting the head were quite removed, and the tic itself was very considerably relieved.

The patient was called away by his affairs to a distance, and I heard of him further only by letter. When the advantage which I have just stated was obtained, he took liquor arsenicalis in the dose of 8 minims twice a day for three weeks, with perfect agreement, and much benefit, and, after omitting medicine for a fortnight, was put on a course of subcarbonate of iron, with so excellent a result, that in the last report which he made to me, he spoke of himself as being cured.

### CASE III.

Neuralgia spasmodica, affecting branches of nerves in various parts of the body. A removal to the climate of the Pyrennees, and a trial of the baths of St. Souveur, proved beneficial.

THE Gentleman who is the subject of the fol-



lowing very interesting case of neuralgia spasmodica, is tall, slight, of delicate constitution, and of the nervous temperament. His disease commenced under circumstances of great mental anxiety, in the spring of 1818, with some tic in the middle of the thigh, but a still more distressing affection of the head, as frequent severe pain, giddiness, disturbance of the faculties although not with delirium, and impaired vision. The muscles of the eyes were affected so as to induce squinting. This state of head was relieved chiefly by cupping, blisters, mercurial purgatives, and regulated diet. During the summer months he was free from all complaint, but in November became again affected with tic, and up to the present period, April 1827, has experienced more or less of the symptoms which I am about to relate.

He went to the Pyrennees in the summer of 1824, and again in 1826; visiting also different parts of France.

The average frequency of attack, for the most part, had been about three times in a week. The pain more commonly seized some part of the lower limbs than the upper, but occasionally affected the



head just above the neck. The attack usually took place in the day, but sometimes in the night. He described the usual mode of attack as being an instantaneous and most excruciating pain in one or more parts of the thighs, knees, or feet, sometimes in extent not exceeding a pin's point, and never more than an inch. The attack lasted from five to eleven hours ; was occasionally stationary in one or two places, but at other times shifted from one part to another with wonderful rapidity, usually with intervals of ease for two minutes. Perspiration, and nervous agitation, sometimes amounting to hysteria, were attendant on a paroxysm. No external appearance of disease. The part affected exquisitely sensible to the touch. The sensations were various, as a sudden stabbing of the part with a sharp instrument ; as if red-hot needles were forced into the skin ; he had sometimes a general sense of coldness in the limb ; sometimes, the gentle sensation of warm water trickling for five or ten minutes ; and this was invariably followed by a protracted duration of the symptoms. He was left extremely languid and exhausted, and sometimes could not, till several hours after the subsidence



of an attack, bear the exertion of speaking. On recovering, the affected parts were entirely free from tenderness.

I saw the patient formerly in several attacks, and witnessed their severity, which sometimes so much exceeded his powers of endurance, that he was almost frantic with agony. It was an affecting spectacle of suffering. He gave me the following general account of the different methods of treatment which had been pursued. From Nov. 1818 to Feb. 1819, camphor internally, and externally in poultices. Feb. to May, stramonium, henbane, oil of amber, warm sea bathing, and frictions. May to June, mercurial alteratives, sarsaparilla, a seton in the neck. During the autumn and close of the year, absolute rest in the horizontal position, and several successive blisters along the spine. Beginning of 1820, a caustic issue at the middle of the spine, kept open for three months; pilula hydrargyri with sarsaparilla; afterwards, at different periods, liquor arsenicalis, and argentum nitratum. In the autumn, blisters on the head in succession for nine weeks, afterwards the shower bath, and large doses of bark.



I found at my first visit that the functions of the liver were not healthy, that there was much laceritious sediment in the urine, and that the tongue was furred: yet the appetite was usually natural. I prescribed gr. iv. of the pilula hydrarg. submur. compos. each night, an aperient in the morning early, with potassæ tartras, infusum sennæ, infusum anthemidis, and tinctura cardamomi composita, together with a strictly regulated diet.

I was anxious to mitigate the torture of the attacks which usually came on without any warning. He received immediate relief from full doses of the liquor opii sedativus, or from the acetate of morphine; but the attendant sickness was so extremely distressing, and the subsequent nervousness so intolerable, that he dreaded even to obtain ease on such terms. I therefore directed the anodyne in the way of injection; and with much advantage. To the affected part he found most relief from a very hot poultice, made simply with grated bread, linseed meal, and water.

Having succeeded in correcting the faulty state of the digestive functions, and so far improving the patient's situation, I put him on a



course of the subcarbonate of iron, with a sanguine expectation of effecting a cure. But in this I was disappointed. I began with 3ss twice a day, and soon increased the dose\* to ℥iv three times a day. The medicine agreed, but did not appear beneficial. Afterwards he took sulphate of quinine, which appeared to be too exciting. His constitution was indeed remarkably sensitive; and it was much more easy to disturb than amend the nervous system by any treatment which could be devised.

As I have already mentioned, this gentleman has twice visited the Pyrennees. On the last occasion, he used the baths of St. Souveur, a few miles from Barége, every day for six weeks, with such

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\* We do not appear to be well acquainted with the maximum dose of this medicine, or that which may be the most useful. I am inclined to believe that the stomach cannot dispose favorably of more than a drachm for the dose; and I conceive that it is better to give such a dose with increased frequency, than more at a time. It is not with this medicine as with bark, which contains its active principle involved in a mass of inert, or comparatively inert matter. The subcarbonate of iron is of uniform composition. It is very insoluble in its nature; it seldom disagrees, although it sometimes offends the stomach, suspends the appetite, and oppresses both the stomach and bowels. By combination with other medicines, much of these inconvenient effects may usually be obviated.



success that he remained free from an attack for a month. He mentions that the temperature of the bath was  $84^{\circ}$ , and that he remained in three quarters of an hour. Change of air and scene on each occasion proved beneficial to his general health. He has gained flesh and strength, and his appearance at this time is very much improved; yet he continues to be affected with attacks in the same manner as formerly, but with less frequency; the usual interval, now, being eight or ten days.

Scarcely any part of the body, except the face, has escaped being affected. The pain, as formerly, takes place without warning, except that sometimes he has for a few minutes a sensation, at the part about to be affected, as if a person were blowing upon it with the breath. I intend that he shall again make trial of the subcarbonate of iron, and of the shower bath, graduating the temperature and quantity of the water.

This case affords an instructive lesson that the invalid who cannot procure relief to the sufferings inflicted by either of the forms of neuralgia of which I have treated, in the variable atmosphere of England, should visit France or Italy, or other



favorable climate, upon a regulated plan of suiting his particular place of residence to the season of the year. The use of baths and mineral waters would also be a subject of consideration.

In determining the principles of treatment best calculated to alleviate or cure the sufferings of this most severe species of nervous disorder, we must in every case investigate the causes of the symptoms so far as the opportunity will allow us. It commonly happens, we must acknowledge, that the mystery is too deep to be penetrated.

If there be change of structure in the brain or spinal marrow, or in the bony parts, causing pressure on the soft parts, it is obvious that the powers of the medical art must be limited to the palliation of symptoms.

If, on the contrary, the disorder shall not have extended beyond the functions of some viscus, we may be enabled to accomplish much by the employment of suitable remedies.

It happens sometimes that a diseased portion of bone, and especially if there be a sharp or pointed surface, so irritates nervous filaments as to disturb the nervous system and cause *tic douloureux*.



in some part of the body, according to the particular situation in which the affected bone may be. In such cases it may possibly be within the art of the surgeon to afford relief.

A morbid growth of bone, furnishing spiculæ, may equally give rise to this symptomatic form of the complaint.

In the case of a gentleman, subject to sudden and excruciating pain of the head just above the os frontis, not occupying more than half an inch in space, I saw extraordinary and permanent benefit produced, by forming an eschar with lunar caustic immediately on the part affected, three several times; the ulceration being allowed to heal on each occasion. Various medicines, the subcarbonate of iron included, had been tried in vain. I have reason to believe that the patient remains well. The disease ensued some months after a fall from a horse, in which there was contusion of the head; but as recovery took place quickly, no treatment was then used.

Tic douloureux is sometimes symptomatic of an unhealthy action of the liver, and of a generally disordered state of the digestive organs.



A lady of the nervous temperament and of bilious diathesis, had suffered for several months from attacks of excruciating pain in the eye, cheek, and side of the nose ; occurring at irregular periods, day and night, lasting usually about half an hour, with intervals of two or three minutes. The complexion was yellow, the tongue furred, the action of the liver and kidneys deficient, and the intestinal canal itself torpid and unhealthy in its functions.

Alterative and aperient medicines with a strictly regulated diet, according to the principles of practice which may be justly assigned to Mr. Abernethy, led to so much improvement of the general health, and of relief to the neuralgic pains, that little seemed wanted to the completion of the cure. The subcarbonate of iron was however given twice a day. The medicine agreed, and the patient obtained a perfect recovery. The following is an example of neuralgia arising from sympathy.

A lady, upwards of forty years of age, ceasing to expect any further increase of her family, became pregnant. In the second month, she experienced pains very much in the manner of *tic douloureux*,



in the branches of the radial and ulnar nerves. Leeches, repeatedly applied, were very useful ; and, as a medicine, subcarbonate of soda was beneficial in conjunction with other occasional remedies ; but no effectual relief was procured by any treatment. An abortion took place at the end of the third month, and after that event there was not any recurrence of pain.

The administration of the fixed alkalies, two or three times daily, often proves useful in the different forms of neuralgia.

I have, in many instances, found it advantageous to join with the subcarbonate of iron, the administration of subcarbonate of soda in solution, in doses of fifteen or twenty grains.

The profession and the public are very largely indebted to Mr. Hutchinson for having introduced the use of subcarbonate of iron as a most valuable remedy in the treatment of neuralgic disease. The candid and liberal manner, in which he disclosed the simplicity of his practice, does him honor as a medical philosopher, and as a man of humanity.

It is not the least recommendation of this remedy that it is perfectly innocent in its nature ;



and, although a fit state of the digestive organs, and of the circulation, is always a proper object of attention, and in many cases an indispensable preliminary, yet it would rarely prove to be an unsafe medicine. Bark in full doses, so strongly recommended by Dr. Kerrison, is the tonic medicine next in efficacy to the subcarbonate of iron ; and, according to that gentleman's report, possesses great power over the tic douloureux.

A division of the diseased nervous filaments by the knife, has occasionally succeeded, according to the report of cases by the late Dr. Haighton\*, Sir Astley Cooper, Mr. Thomas, and others ; but the operation has too often failed to merit implicit confidence ; and it is a happy circumstance, when by means of medicine we can supersede the neces-

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\* For Dr. Haighton's very interesting case, see Medical Records and Researches, selected from the papers of a private Medical Association, 1798.

Sauvages, in his *Nosologia Methodica*, tome i, p. 533, quotes from André a case of tic douloureux of the inferior maxillary branch of the fifth pair, of fifteen years standing ; in which a cure was performed by destroying the nerve with caustic, which was applied at the mental foramen.



sity of having recourse to the more painful measures of the surgeon.

I conceive that our pathology of the disease requires further study, and which must be founded upon an investigation of the morbid anatomy of all the parts concerned in this most painful affection.

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IN bringing this volume to a conclusion, I may with propriety offer a few general observations on the subject of regimen and diet, to which points of attention I have had such frequent occasion to advert.

The rheumatic invalid should study to fortify his frame by regular exercise, at the same time carefully avoiding exposure to cold winds and a damp atmosphere, unless defended by suitable clothing. Should he accidentally get wet, he should hasten to put on dry clothes; and, if the body be chilled, he would do well to restore the warmth of the surface by using friction with warm flannel.



When a general chill of the body, produced either by exposure to damp, or to cold alone, is followed by feelings of indisposition, the prompt use of a warm bath proves not only soothing and refreshing, but is well calculated to prevent any permanent illness.

I would recommend cold sea bathing, the cold bath, or the shower bath, at the proper season of the year. Washing the head with a towel dipped in cold water every morning, or even night and morning, together with the habit of sponging the feet with tepid or cold salt water, will also be found to constitute a very beneficial part of the preventive plan.

In this variable climate, the use of flannel worn next the skin is required by the rheumatic patient at every part of the year, except in the settled weather of a warm summer, when he may be permitted to substitute calico. I have occasionally met with individuals who have ascribed their rheumatic pains to the wearing of flannel, and have really found advantage from the discontinuance of it. The explanation is, that they have possessed great liability to perspire too freely on taking ex-



ercise, and thus have been rendered more susceptible to the vicissitudes of atmospherical temperature\*.

The consideration of diet is indispensable in the treatment of all diseases, and it is of obvious importance towards the preservation of health.

In acute disease, attended with fever, the patient does not feel the temptation to commit error, for the appetite is suspended, and there is no desire but for cooling and diluting drink.

It is in the management of chronic diseases, that the skill of the physician and the prudence of the patient are particularly required. In most instances of chronic rheumatism the appetite is not interrupted; but, notwithstanding this circumstance, unless the diet is regulated, the morbid actions of the frame may be supported to an indefinite extent. The absence of feelings of indigestion is not a proof that the digestive process in its different stages is healthily performed. The error

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\* In this Treatise I have already commented on the occasional expediency of wearing shamois leather over thin Welsh flannel; but, I may here observe, I do not approve of leather being worn next the skin as a waistcoat.



occurs chiefly below the stomach ; and for the proof of perfect digestion, in the extensive acceptation of the term, we must look both to the state and action of the bowels, and also of the kidneys.

On the question of diet, it appears to me that some eminent writers of the present day have advocated principles not only of an opposite nature, but each carried to the extreme. Injunctions of abstemiousness in the daily quantity of solid food, even to the nicety of making the estimate by weight, will occasionally be proper, but cannot be required as a common rule even for the dyspeptic invalid. The entire avoidance of drink at meals may in occasional instances be judicious ; but although I strongly recommend moderation in this particular, I cannot discover the reasonableness of entirely prohibiting the practice of taking fluid at dinner, which both nature dictates, and experience has sanctioned as correct, under proper regulations.

The error, however, committed by the opposite party, in allowing too great a latitude to inclination, is, in my apprehension, fraught with much greater evil.



I differ, indeed, most widely from those who profess to leave the choice of food to the dictates of the palate and the guidance of experience, however plausible their arguments may appear. Such liberty may be permitted, for the most part, to those who are in possession of robust health, and who live under favourable circumstances of enjoying air and exercise, but cannot be safe for persons who are subject to the attacks of gout or rheumatism, or of other occasional diseases.

How prone the generality of mankind are, in all ages, to forget that the enjoyment of permanent health is utterly incompatible with an habitual indulgence in the luxuries of the table, is but too evident from the forcible language of the Roman satirist.

“ *Poscis opem nervis, corpusque fidele senectæ.*

*Esto, age: sed grandes patinæ tucetaque crassa*

*Adnuere his superos vetuere, Jovemque morantur.”*

PERSIUS, Sat. ii.

FINIS.



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 indulgence in the luxuries of the table, is but too  
 evident from the forcible language of the Roman  
 satirist, Juvenal, and various others. I, therefore,  
 find it prudent to add and all guidebook systems in  
 "Locis opem nervis, corporaque fidele senectis."  
 "Properis tunc cibis, et non solum cibis, sed et  
 fatis, aetate, et gradibus patitur luculentus cibus."  
 "et adducit adhibere cibis, et non solum cibis, sed et  
 fatis, aetate, et gradibus patitur luculentus cibus."  
 Presque, Sat. ii.  
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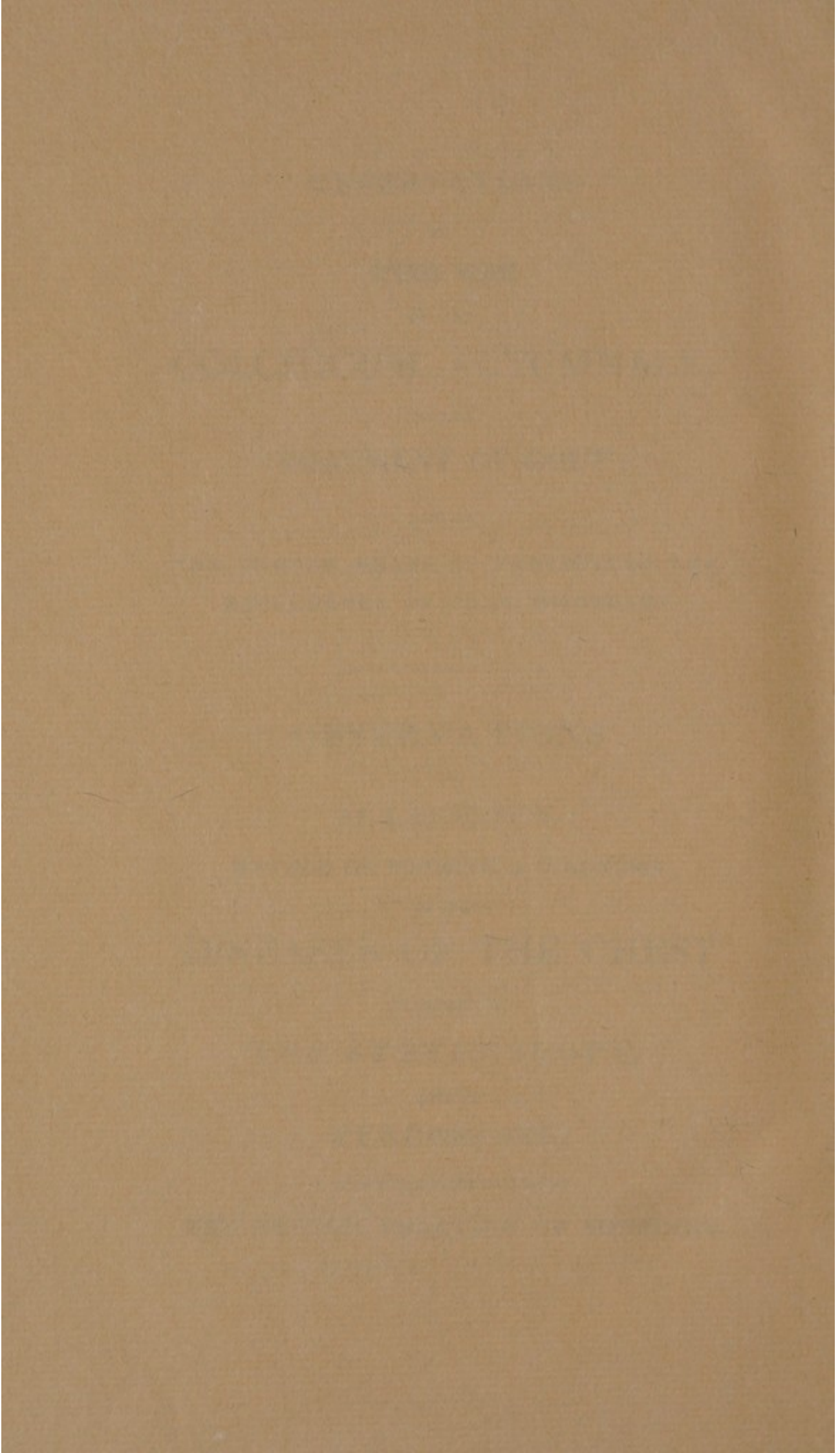
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