

On neuralgic, rheumatic, and other painful affections : with notices of improved modes of treatment / by James Arnott.

Contributors

Arnott, James Moncrieff, 1794-1885.
Royal College of Surgeons of England

Publication/Creation

London : J. Churchill, 1851.

Persistent URL

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ON

NEURALGIC, RHEUMATIC,

AND OTHER

PAINFUL AFFECTIONS:

WITH NOTICES OF

IMPROVED MODES OF TREATMENT.

BY

JAMES ARNOTT, M.D.,

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PRESENTED
by the
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LONDON:

J. CHURCHILL, 46, PRINCE'S STREET, SOHO.

1851.

NEURALGIC RHEUMATISM

ETIOLOGY

PAIRED AFFECTIONS

IMPROVED MODES OF TREATMENT

JAMES PRUITT, M.D.

INTRODUCTORY NOTICE.

My attention was, three years ago, especially drawn to the subject of Neuralgia, by my own sufferings from that disease. After trying the usual remedies with very little relief, recourse was had, and with success, to two others which I had found useful in analogous affections. They have already been described: one of them, which is a mode of regulating the temperature of morbid parts with precision, or of applying heat or cold continuously and uniformly, is mentioned in my Essay on Therapeutical Inquiry; the other, being a method of making a powerful and general impression on the nervous system, was briefly noticed in an anonymous communication to a medical journal. To a more detailed explanation of these expedients will now be added the account of a third remedy of more recent introduction into the practice of medicine; and which will probably be found adequate to the cure of most of those cases of painful affection which resist the other methods of treatment adverted to, as well as those in common use; I allude to the regulated application of a very low or anæsthetic temperature.

In the two first of the remedies just mentioned there is no absolute novelty; the principle of each was known, although means had not been devised for carrying it out properly or efficiently in practice. But the third expedient referred to, is founded on an entirely new principle in practical medicine,

and, if I am not much mistaken, will very soon, from the safety of its operation, its power and promptitude in arresting inflammatory and painful affection; and its extensive applicability to diseases of this description, take its place in the very first rank of therapeutical measures.

The fact extracted from the records of a public institution and circumstantially related in the following pages, of nine consecutive cases of one of the most painful affections to which the human frame is subject, and which may be chosen as a type of the whole class, being permanently cured by a single or, at most, two applications of an anæsthetic temperature of five minutes' duration, is a striking evidence of the power and speedy operation of the measure; while its not having failed in any instance of the disease that presented itself within a specified period, entitles it to a character for certainty of action scarcely inferior to that of bark or quinine as a remedy for ague. This certainty eminently distinguishes it from the other means hitherto employed for the same purposes, which, generally speaking, are so little to be depended upon, that when pain ceases during their employment, it becomes a question whether its cessation be an effect of their application or a mere coincidence.

NEURALGIA.

It is not intended that the following observations should form a complete treatise on Neuralgia or Tic-Doloureux. What is known of its nature and causes has been so often repeated in monographs and systematic works, as to render this unnecessary; and I shall, therefore, restrict myself to the notice only of such well-ascertained points respecting these as have a useful bearing on the treatment of the disease.

The symptoms of Neuralgia, consisting principally of severe pains of uncertain recurrence and, ordinarily, short duration, are, generally, too well marked, and too little connected with any other sensible morbid condition, to be mistaken for the pains attending inflammatory or organic disease. If, on some occasions, it is difficult to say whether the affection be neuralgic or rheumatic—a difficulty which the invention of the term “rheumatic neuralgia” was intended to meet—this is, fortunately, of no great importance, as the measures which have been found successful in the removal of one of these conditions, have proved equally useful in the other.

Amongst the points principally deserving notice connected with the pathology of this disease, is the fact, that in by far the greater number of cases, examination after death has detected no sensible alteration in the structure either of the nerves which had been affected, or in the contiguous textures, or indeed in any part of the body; and of those alterations which have been

found, it can hardly be doubted that if they had any connexion at all with the painful affection, it was as effects, and not as causes. A knowledge of this truth leads to the idea that Neuralgia is generally a functional and not an organic disease; and therefore, that it is more under the influence of medical treatment than it would be under the latter circumstance.

The disease, it has been said, consists of nothing but pain; but irritation of a nerve of more or less persistence, or dependent upon circumstances more or less removable, is the cause of this pain. Organic changes, however, in the nerve itself, or in the contiguous structures, are sufficiently frequent, to render it necessary that they should be suspected and searched for in every case before the plan of treatment is determined upon. The removal of a tumour, or piece of diseased bone, or a foreign body pressing upon and irritating a nerve, may immediately put an end to Neuralgia. Such a cause of irritation may exist near the painful nerve, or some more distant nerve in connexion with it; or it may be lodged in the brain or spinal marrow, or, still more remote, it may act on a nerve only connected with the painful one through the medium of one of these nervous centres. The most familiar instance of Neuralgia arising from such causes, is that produced by carious or otherwise diseased teeth; for it is unquestionable that toothache must often be regarded as a variety of this malady.

The connexion between Neuralgia and other organic or functional diseases, particularly of the digestive and glandular systems, is equally deserving of notice, and, indeed, can hardly be considered as differing, in essential circumstances, from the causes of the disease just adverted to.

The pain, or paroxysmal aggravation of pain, in Neuralgia, generally recurs at uncertain times; on other occasions, there is a return after certain intervals. This periodical character of the disease suggested the employment of the same remedial measures that are found efficacious in other periodical diseases; and these have, in many cases, been found the most useful.

Particular nerves are much more frequently the seat of Neuralgia than others; and this is especially worthy of remark, on account of the fact that these nerves are the most exposed to atmospherical influences and other causes of irritation, the removal or prevention of which must, of course, constitute an important indication in the management of the disease. The nerves of the face and forehead are those most frequently affected, whether the disease be called tic or headache; and next in succession, particularly amongst women, are the intercostal nerves, the affection of which, called pleurodyne, may, on many occasions, at least, be justly ascribed to irritation caused by peculiarities of dress.

Although the pain is usually confined to some particular nerve or its branches, it occasionally flits from one to another, and sometimes even from the cerebro-spinal to the ganglionic system of nerves. This flitting or general Neuralgia probably differs in some essential respects from its more usual forms; and (which is another evidence of this) there is more difficulty in curing it. I have now under my care a lady who has been afflicted for many years with a migrating pain of this description, and for which she has tried a great number and diversity of remedies, under several practitioners, with very little benefit. In addition to a severe and almost unceasing pain in the region of the kidneys and in one of the groins, similar to that accompanying a fit of gravel, there is, at present, a neuralgic condition of the whole of the digestive and respiratory mucous membrane. She has frequent attacks of sneezing, and every time that food is taken, it appears to come in contact with a raw or highly sensitive surface, and very frequently causes vomiting and purging. There is moreover a fixed pain in the calf of the leg, requiring the frequent application of local measures for its relief. Under the idea that the disease was only one of the forms of hysteria, the usual measures prescribed for that malady were, at one time, vigorously employed, but without the slightest benefit.

Amongst the causes of Neuralgia, exposure to cold and damp, malaria, and mental disquietude or emotions of a depressing kind, are some of the most common, or at least, the best known. Hence a change of residence or occupation has often succeeded as a remedy when all other measures have failed. I may mention as an example of the effect of mental emotion, that a patient who had suffered severely for months from tic in the face, four years ago, has only once felt the characteristic neuralgic plunge for a moment since, and that was on the sudden announcement of a circumstance likely to cause him much annoyance.

Many cases of Neuralgia, after resisting every means adopted for their cure, get well of their own accord, or, in other words, are removed by the unassisted efforts of nature; while others, arising probably from organic and irremovable changes in structure, are incurable. Yet, even in cases of the last description, life may be protracted to a great length, in comfort, by having recourse to palliatives of an innocent and efficacious kind. There are anodynes occasionally resorted to, of a contrary description. About nine years ago, I was consulted by a sufferer from agonizing tic in the foot. The remedies I advised, and which were some of those then well known to the profession, proved of as little efficacy as what he had been already employing; and nothing subsequently recommended by other practitioners was of more avail. At length, despairing of relief from safer measures, he had exclusive recourse to brandy and opium; and after no great period died of delirium tremens.

TREATMENT OF NEURALGIA.

Several of the general points requiring attention in the treatment of Neuralgia have been adverted to in the preceding observations. The cause must be ascertained, if possible; and if still acting, must be removed; whether this be one of the physical or moral agencies known under the name of exciting causes,

or some functional derangement or organic change constituting another disease.

As the measures which have, either singly or in combination, been employed in the treatment of idiopathic Neuralgia are very numerous, it is necessary, in specifying them, to attempt some classification. Their usual division into general and local remedies is sufficiently convenient. The principal remedies acting generally on the system may be again divided into anodynes, and tonics or antiperiodics ; and after a brief consideration of these, the new general remedy which I have to recommend in Neuralgia, will be more minutely described.

1. Anodynes, exhibited internally, can hardly be considered as being more than palliatives ; and they rarely act as such without the counterbalancing effect of disordering the digestive or cerebral functions.

2. Amongst other tonics, carbonate of iron has had considerable reputation, and although it has not maintained the high station at one time assigned to it, when other measures fail, and no condition of the system opposes its employment, it deserves a trial.* Arsenic, so far as my own experience shews, deserves

* The writer of the chapter on Neuralgia, in the "Library of Practical Medicine," passes a high eulogium on Mr. Hutchinson, the introducer of carbonate of iron, for his "disinterestedness." If he means by this, that Mr. Hutchinson might, by keeping his discovery secret, have found an advantage from it in a pecuniary point of view, his intended compliment implies a severe, and I believe an unjust, censure on the medical profession ; for, surely there is no honourable member of it who would, for a moment, think of concealing the nature of a remedy in order that he might advance his own fortune. Yet, when we witness the consequences of publishing practical discoveries of much greater value that oppose common prejudices, it must be acknowledged that some credit for disinterestedness is due to those who do so ; for it rarely happens that they are not considerable losers thereby—not by the opportunity which they give others of using their discoveries, but by the actual loss of reputation which they suffer. No recent addition to therapeutics equals in importance the introduction of iodine into medicine, yet we find the discoverer,

more confidence when it is employed judiciously ; but quinine is the remedy, of this class, which will prove most frequently of service, provided it is given in adequate doses. Either quinine or arsenic is especially indicated by periodicity in the attacks.

Although I am hardly authorized to include mercury amongst medicines of this class, I may not have a better opportunity of stating that I have once witnessed the cure, by this drug, of a very severe neuralgic affection, following amputation of the fore-arm. The patient was an officer in the St. Helena Garrison, and so acute was his suffering that it was in contemplation to perform another operation on the arm, when he chanced to be attacked with the obstinate costiveness, or dry belly-ache, as it has been termed, endemic to that and several of the West India Islands. Mercury, the usual remedy for this, was administered until profuse salivation was produced ; and both affections were simultaneously cured by it. The mercury probably acted on this occasion as bark is supposed to operate in intermittent disease, viz., by exciting a new action or disturbance in the system, incompatible with, and consequently preventing the recurrence of, the morbid action ; and when it has been so prevented on one or more occasions, the system becomes incapable of it, or unsusceptible of the influences producing it. That this is the proper explanation would appear from the similar remedial effect of arsenic and other medicines, between the effects of which and bark there is no resemblance except in this production of general excitement. But if medicines or drugs so dissimilar in other respects, should agree in their quality of preventing the periodical accession of disease by virtue of this common property of causing excitement, it is not at all extraordinary that other agents of a physical or moral nature, strongly influencing the system, should, though not

Dr. Coindet, complaining in his correspondence with his friends, of the malignancy which it excited ; and it is very doubtful whether the happiness of Jenner was promoted by the publication of the greatest practical discovery yet made in medicine.

belonging to the category of drugs, possess a similar power. We have a familiar illustration of such a physical agency in the case of a person suffering from toothache, who walks quickly about the room and finds the pain assuaged thereby; and a still stronger example of the remedial effect of moral emotion, in the frequently immediate cessation of suffering from toothache from the alarm excited by preparations for extracting the tooth.

The observation of these and similar facts led me, many years ago, to think that medicine had not availed itself of the principle involved in them to a sufficient, or indeed to any useful extent; and being then myself a sufferer from intermittent disease, I determined to try the effect of its full influence on my own person. The remark that this principle has been neglected will, perhaps, appear at variance with the known and much-valued effects of bodily exercise and agreeable mental emotion, which, doubtless, may sometimes act beneficially in the same way. Dr. Darwin, also, tells a ludicrous story in his *Zoonomia*, of two carters, who were labouring under dysentery, and inmates of the same ward in the Edinburgh Infirmary when he was a student there, which will shew that it has already been attended to. Quarreling about something, they rose from their beds in a passion, seized their cart-whips, and lashed each other until their mental and bodily energies were quite expended. Their disease, Darwin avers, was instantly checked; and he goes on to explain the *modus operandi* of the fury and flagellation by one of his own hypotheses. A narrative by the late Dr. Marcet, inserted in a medical journal some thirty years ago, is likewise in point. After trying, without benefit, various remedies for chronic rheumatism in his own person, he clothed himself in flannel and set out on a long pedestrian excursion. Although hardly able to move at first, he gradually lost the pain as he proceeded, and before his return home his sufferings had entirely ceased. It is well known, too, that persons labouring under gout have at once lost their sense of pain, and regained their capacity of motion, under the influence of some sudden and violent mental emotion.

In the year 1814, I was seized, while at the Island of Java, with the endemic fever of that country, commonly called the Batavian Fever; and, for many years, had, in consequence of this seizure, a tendency to irregular fits of the character of ague, after fatigue or other causes of depression. When in Calcutta, four years afterwards, this disposition became stronger, and as the disease at length assumed a periodic character, recourse was had to bark and subsequently to arsenic, which subdued the frequency and periodicity of the attacks without, however, preventing the recurrence of ague fits at long intervals as before. Little attention was paid to these, as the general health in the intervals was perfect, until the year 1825, when, being much incommoded by them, I determined upon the trial of something that might prove of service, even though delayed until after the premonitory symptoms had appeared. This expedient was violent exercise: continued for a considerable time, it succeeded in preventing the cold stage on several consecutive occasions; and although a complete exemption from the attacks afterwards was not thus secured, they gradually declined in frequency and force.

Three years ago, and perhaps in consequence of this disposition to intermittent disease, I was attacked with *tic-doloureux*,—the nerve chiefly affected being the inferior maxillary branch of the fifth pair. The paroxysms were not frequent, but while they lasted the pain was excruciating. As the recumbent posture generally caused them, I rarely, for many weeks, was able to sleep except in an arm chair. The whole routine treatment of Neuralgia was tried with very little advantage. After influencing the abdominal secretions, under the idea that the Neuralgia might be symptomatic of disorder there, quinine, arsenic, colchicum, and various narcotics were taken separately and in combination. The most relief was obtained from large doses of quinine and the local application of heat and moisture. I at last determined to try the effect of general excitement from severe bodily exercise. It is unnecessary to describe the par-

ticular modes adopted, farther than that they were calculated speedily to produce great vascular excitement.

The paroxysms of pain were quickly subdued by this expedient; and, at length, I was able, on their first approach, thus completely to prevent them. It is possible that a change of residence, which was then made, may have assisted in the cure, but assuredly to the plan described, the chief influence was due. My observation since of the benefit in similar cases from means of the same description, confirms this opinion. If the influence of strong mental emotion can be conjoined with that of bodily excitement, the beneficial effect will be more rapid and complete.

A theoretical objection may be made, that this practice, although it may be adequate to check an approaching paroxysm of pain, would be too transient in its operation to effect a permanent cure. All, however, that is required, is a transient influence, incompatible with the morbid action constituting the disease, and powerful enough to supersede this; and could the effect of quinine or arsenic be limited to this duration, it would probably be enough. Were there indeed a necessity for expelling a poison from the blood, it would be otherwise; and the notion that a poison had to be expelled in ague, constituted the objection, that so long and so disastrously opposed the use of bark in its treatment; as it was supposed from its astringent nature, to be a drug better calculated to retain, than evacuate the mordific matter.

The chief defect of the remedy which I have described is the difficulty of applying it. To be capable of severe bodily exercise, implies the existence of a considerable amount of muscular power; and it too frequently happens that this disease is found associated with so much debility, that even with the temporary energy acquired from stimulants the plan is impracticable. It may often, however, be carried out to a certain degree, and act advantageously in combination with other measures.

Amongst the most efficient of these, the remedies constituting the next division of our subject, or those which act locally,

must, unquestionably, be reckoned. Although, as we have already seen, Neuralgia occasionally assumes the character of a general or constitutional disease, it much more frequently is of a local description, and, on that account, might be supposed to be most frequently amenable to local measures. Because a disease may sometimes originate from such a general cause as malaria, it by no means necessarily follows (as has been erroneously supposed) that it must, on that account, be always a general or constitutional disease ; nor must we draw the same inference from the observation that it is often curable by bark or other general remedies. The effect of both cause and remedy, in these instances, may be local. We know, besides, that Neuralgia often arises from manifestly local causes of nervous irritation, and that it is as manifestly cured by remedies of local or partial agency.

The principal local remedies which have been used in Neuralgia may be divided into stimulants, anodynes, and the application of heat or cold ; bearing in mind, however, that this classification is more convenient than accurate, inasmuch as high or low temperatures may, with their own peculiar virtues, be the means of answering the purposes of both the other classes. Ammoniacal lotions, blisters, and electricity, are amongst the principal stimulants ; opium, aconite, veratria, belladonna, chloroform and other ethers, constitute the principal anodynes. But neither are so certain or permanent in their effects, as the remedies in the remaining division.

The low temperatures resorted to in Neuralgia have been those of the coldest water and of ice. The efficacy of ice is counterbalanced, in the opinion of Dr. McCulloch, expressed in his elaborate work on Neuralgia, by the reaction that follows its use. Without stopping to enquire whether this objection be well founded or not, I shall only now remark that in estimating the remedial character of different degrees of low temperature, a broad distinction must be made between those hitherto employed, and one lower by thirty or forty degrees of Fahrenheit's thermometer. The first are *cold* applications ; the

latter produces a sensation more allied to that of heat; and they differ as much in their remedial as in their sensible effects, as will be afterwards shewn; for, on account of this essential difference, it will be better to consider these expedients apart.

Heat has been applied in Neuralgia in many different modes, either singly or in combination with other means, both local and general. It has been applied through the medium of solids, fluids, and vapours. A greater importance, perhaps, has been attached to the mere mode of applying heat than philosophy warrants, and by writers who cannot for a moment be suspected of imposing a trifling modification for a novelty of principle; yet, as the success of the treatment depends upon the principle it involves being properly carried out, it is of essential importance that the instruments employed should be sufficient for this purpose.

Sir Anthony Carlisle conceived there was great advantage in applying heat by means of an iron previously dipped in hot water, which, truly, does not very remarkably differ from the old practice of *ironing* the part with a laundress's heater; and Drs. Corrigan and Day have severally recommended the repeated strokes of a small heated hammer, as a remedy possessing peculiar powers. The "transcurrent cauterization" of the French, and which has been so highly eulogised by M. Valleix as a remedy of sciatica, belongs to the same category; though it is probably more efficient than the others, as it is more severe.

The same unimportant variety is observable in the several ways practised of communicating heat by vapour or air. In steam there is certainly, as in poultices or fomentations, the combination of moisture with heat; and it has generally been admitted that such an union possesses higher powers. Dr. McCulloch says he never failed in at least relieving the pain by the application of steam.* To this combination of moisture

* In a paper published some time since in the *Lancet*, when anticipating an objection to a method which I proposed of arresting uterine hæmorrhage, that it would be difficult to obtain the requisite apparatus, I enumerated the various useful purposes which a long

and heat, another element, the narcotic principle, has been supposed to be added in what the French term "*douches des vapeurs sedatives*," by infusing narcotic herbs in the water which generates the steam. Such an addition, however, is only consistent with temperatures not so high as to stimulate; and whatever advantage may be gained from the combination, would, generally, be more conveniently and certainly procured by placing narcotic tinctures or extracts in contact with the part before the heat is applied. An ingenious instrument has been constructed for the same purpose, on the principle of the popular remedy for toothache of smoking tobacco; hot air being substituted for the vapour of the douche.

The common mode of applying heat, and not the least efficient, though the simplest, is by liquids. Common poultices and fomentations may have less influence on the imagination than more complicated measures; but that they are beneficial in Neuralgia, the experience of ages can testify.

In another work* I have explained, with great minuteness, (though, I presume, not greater than the importance of the subject demands) the defects of the common modes of applying

flexible or vulcanized India-rubber tube will serve in the practice of medicine, as a reason why every practitioner should have one in his possession: To these I would add its use in applying steam to any part of the body. No simpler or more expeditious method could be devised. One end of the elastic tube will clasp the spout of a common tea kettle, which has been made vapour-tight by placing a bit of cloth under its lid; and the other end may be placed under a blanket, covering the patient, when a whole bath is required, or be inserted in a funnel, or applied directly, when the steaming is to be partial. A little spirit poured into a heated tea-saucer, forms a ready substitute for a spirit lamp, when it is necessary to remove the kettle from the fire. Simplicity and accessibility of apparatus is of more importance in cases requiring the speedy application of heat, than perfection.

* On Indigestion, and its Treatment by Heat and Moisture; with an Account of a Mode of Applying Heat or Cold Uniformly and Continuously, in various Irritative and Inflammatory Diseases.

heat in the treatment of disease, either simply or in combination with other principles. I have shewn, by using the test of the thermometer, that great delusion exists on the subject of the amount of heat communicated by these modes, and have pointed out how their defects (often not only making the remedy inert, but positively injurious) may be removed. It is not now my intention to enter into the matter with any detail, but I shall merely give a brief description of the apparatus which I have devised for the purpose of applying an uniform and appropriate temperature, and for combining with it other useful agencies, as pressure, moisture, the action of narcotics, &c.

A waterproof bag or cushion, of appropriate size and shape, and moistened with warm water or a narcotic infusion, is placed upon the painful part, when, by means of two long flexible tubes attached to the bag, an uniform stream of water, of the required temperature, is made to flow through it, from a raised reservoir. The temperature can thus be exactly regulated; the same temperature can be uniformly continued for any period; if a great degree of heat is desirable, (a cushion of vulcanized caoutchouc will bear any degree) it can be gradually applied so as not to cause pain; and, if instead of continuous heat, an alternation of heat with cold is desired, (a plan which I have known to be eminently successful) hot and cold currents of water can be passed through the bag in succession. Another and simpler form of this apparatus, consists of a cushion and *one* tube, which is made to answer the double purpose of the channel by which the water enters and that by which it escapes alternately, without the cushion being removed or the patient disturbed. By either of these instruments, heat and its associated agencies can be better applied in Neuralgia than by any other means; and relief will often be obtained by thus carrying the principle thoroughly out, when other imperfect modes have failed.

It now remains that I should describe a local application in Neuralgia, more powerful and more generally successful in

cases yielding to local measures than any yet noticed. This is, likewise, a modification of temperature, but cannot, whether we regard the sensation it produces, or its effects on the part to which it is applied, be ranked with any degree or modification of temperature hitherto used. I have termed it an anæsthetic or benumbing temperature, as its first and most striking effect is to benumb or suspend the sensibility of the part to which it is applied; and because much of its remedial efficacy probably depends on this effect.

This anæsthetic temperature is produced by bringing into contact with the part subjected to it a mixture of certain salts, which, by rapidly acting upon and dissolving each other, reduce the temperature below zero of Fahrenheit's thermometer. The sensibility is suspended during the application of these frigorific mixtures; and as the exaltation of sensibility constituting pain proceeds from a morbid excitement, either of the blood-vessels or nerves of the affected part, which is subdued by an anæsthetic temperature, although sensibility soon returns upon the restoration of the natural temperature, it returns in its natural or normal condition.

The first purpose for which a very low or anæsthetic temperature was employed in medicine, was to produce insensibility during certain surgical operations. As such a temperature was found to be not only a perfect preventive of suffering, but a preventive also of that inflammation which often impedes the healing of the wound after operations, its employment for relieving the pain in neuralgic disease, as well as for removing the irritation on which, as has just been said, that pain probably depends, was an obvious extension of the principle.*

* I am glad to have it in my power to bring forward the authority of the first surgeon in Europe, M. Velpeau, in favour of an opinion which I have often expressed, that it is wrong to subject a patient to the hazard of chloroform, and to suspend his consciousness, in order to prevent pain in operations, which can as well be prevented without hazard or any unpleasant effect by local means. In the 42nd num-

As I have already minutely described the mode of applying an anæsthetic temperature in other publications on its remedial uses, I shall on the present occasion, instead of repeating these instructions, confine my observations to certain points connected with the subject that have not been so fully explained.

ber of the "Union Médicale," of last year, there is an interesting report on the employment of frigorific mixtures to produce anæsthesia, drawn up by M. M. Bérand and Foucher, Internes of the Hospital la Charité, of which the following paragraphs are extracts.

After mentioning that the hopes, once entertained, that the local application of ether or chloroform might produce local insensibility, had been disappointed, they thus proceed: "It is now some months since M. Arnott, in pursuance of this idea, (that it was not only useless but dangerous to render the whole organism insensible when the surgeon's intention was to apply an instrument on only one region of it) made some trials of a refrigerating mixture in the hospitals of Paris; and M. Velpeau reported to the Academy of Medicine the encouraging results of these. The Professor of 'La Charité' has since then himself employed the same means; and it is our duty now to relate the three facts of which we have been witnesses.

"1. In the case of a young girl having a large abscess above the right knee, M. Velpeau applied the frigorific mixture, composed of two parts of ice to one of sea-salt. After four minutes, the skin having become blanched in all the points in contact with the mixture, it was practicable to make an incision of about an inch in extent without the patient's being sensible of pain. There was nothing peculiar in the after progress of the abscess.

"2. A few days afterwards, having to remove a nail which had grown into the flesh of a woman, M. Velpeau applied the frigorific mixture upon the affected great toe. After two minutes he was able to introduce the point of a scissors under the nail, cut it in two parts, and tear it out with a pincers, without producing the least pain. The patient watched the different steps of the operation like an unconcerned spectator. The remaining history of the case differed in nothing from the usual consequences of this operation.

"3. On the same day a patient entered the Hospital for the like purpose of having an 'ongle incarné' removed. After having had the same anæsthetic agent applied during four minutes, she was operated upon in the same manner, and, as in the former case, without any pain being produced.

It is desirable on all occasions to apply this remedy without causing much uneasiness, but especially so, in neuralgic cases, when the patient has, from long suffering, become more susceptible of, or at least less able to endure pain. If the frigorific mixture be properly prepared, the moment it touches the part

“In these three cases the insensibility lasted from two to four minutes ; the part which had been rendered insensible quickly returned to its former or normal condition.”

After the report of these cases, the writers proceed to relate, with great minuteness, the sensations and appearances caused by a series of applications of the frigorific mixture to their own persons. After congealing the fore-arm, they pierced it on several occasions as deep as the bone, without causing pain. Their inferences from these experiments prove their acquaintance with the most important points relating to the subject, excepting that they do not appear to be fully aware of the fact, that a certain degree or continuance of congelation is highly useful in preventing inflammation and facilitating the healing of the wound. It has this additional advantage over chloroform in the operations for which it is adapted.

The employment of congelation by M. Velpeau, now reported, is more interesting on account of the operation for onyx, or a nail growing into the flesh, which is most painful if no anæsthetic agent is resorted to, having twice proved fatal from the use of chloroform. With a knowledge of such facts as the above, and such an unexceptional record brought into court, there might be some difficulty in meeting an accusation of malpractice, should another death from chloroform occur under similar circumstances.

It is very natural that the disappointment from the exaggerated statements which have been made respecting the effects of chloroform, either as a means of producing insensibility, or of relieving pain, should indispose the surgeon to put trust in any local anæsthetic, without such corroborative evidence as that contained in the above quotation ; but that congelation, properly applied, never fails to produce complete anæsthesia to a certain and very useful extent, any one having doubts on the subject can ascertain, as the reporters of the above cases did, by a simple experiment on his own person. Even the internal exhibition of chloroform is not so certain ; owing to peculiarities of constitution, it sometimes fails in producing insensibility. Neither can the trouble attending the use of congelation be alleged as a reason for preferring chloroform. The latter not only requires an assistant to administer it, but sometimes more than one

it benumbs it; and the patient is hardly sensible of the application until it begins to produce congelation. It is seldom spoken of as a *cold* application; it causes a slight smarting or tingling, and is rather warm than cold. Children will often bear it without wincing. When it is continued until congelation is produced, the smarting is increased, and, frequently, when there is disease present, and the nerves affected are morbidly irritable, some management is required to prevent pain. Should the congelation be steadily continued, the uneasiness caused by it is indeed soon at an end; but it would prevent this being complained of, if the congelation be more gradually made; or, in other words, if the same amount of uneasiness be spread over a considerable period instead of being concentrated. After the application, when the part first regains its sensibility, there is a similar sensation of smarting, provided means be not adopted to prevent it. This is usually so slight that I have rarely taken such a precaution,

to restrain the convulsive movements of the etherized patient; and the apparatus required for its administration is ~~not~~ less simple than that required for congelation. An English surgeon, who has published his experience of the use of cold as an anæsthetic, and who has adverted to its advantage in rendering the presence of an assistant unnecessary, speaks also of the trouble which it prevents by restraining embarrassing hæmorrhage. Any objection to congelation, on the score of reaction being likely to be caused by it, or other injurious effects, can only originate either from not distinguishing between the lowest temperatures hitherto employed in medicine, and one forty degrees lower still, or from not perceiving the difference that subsists between a regulated and limited congelation and one that is uncontrolled or unlimited. Although it has now been employed thousands of times, both as an anæsthetic and a remedy, I have never observed any such result. It is true that there are deep-seated parts operated upon which cannot thus be deprived of their sensibility, unless the frigorific were applied after, as well as before, the first incision; but if the greater and more intolerable pain attending these operations, or that proceeding from the incision of the skin and contiguous tissues, can be thus prevented, it becomes a question whether the surgeon is justifiable in endangering the patient's life, in order to save him from the minor and more tolerable degree of suffering which would remain.

unless requested to do so, and few patients care about it. The mode of preventing it is to keep the heat of the part for some time under its natural degree, and the application of a bladder containing cold water is the best mode of effecting this. If the water be constantly changed, as in the "current apparatus" described above, this preventive is complete.

It is singular, that when a frigorific mixture is applied to the womb through a speculum, there should be no uneasiness caused, however quickly the congelation be effected. I have, indeed, heard of pain being then excited, and on more than one occasion, but I ascribe this to some error having been committed in the mode of application.

The duration of the anæsthetic application in neuralgic cases must obviously depend upon various circumstances requiring the exercise of the practitioner's judgment. In lumbago, as will be presently seen, and in sciatica, this has generally been about five minutes. I have rarely exceeded, and more frequently fallen short of, this period.

How long the circulation of blood in the part could be suspended with safety, while, as is usually the case in the remedial employment of congelation, it continues vigorous in other parts of the system, it is difficult to determine; but there can be no hesitation in saying, that not the slightest risk can be incurred by any such short continuance as is then required. No educated medical man will, upon the least reflection, confound the action of a limited application of an anæsthetic temperature, with the effects of long exposure to the cold of severe winters or high latitudes, when he knows that almost all our other efficient curative means consist of the regulated application of agents, which would prove injurious or destructive if not so restricted. He would be as likely to confound medical electricity with lightning, small doses of opium or prussic acid with poisonous doses, or, I may even say, momentary immersion in water with that which produces asphyxia. So far from there being any hazard from the proper use of an anæsthetic temperature, I

do not hesitate, speaking now from very great experience, to say, that no other remedy of comparable efficiency is nearly so safe. But although a well informed practitioner is not likely to be prejudiced against a new remedy, merely because it is the limited and regulated action of a power which is injurious when unrestricted, it is very possible that he may not at first perceive the essential difference which subsists between such a temperature as we have been speaking of, or one producing insensibility, and the common low temperatures, as those of evaporating lotions and of ice, that have hitherto been used in medicine. To understand this difference, it is necessary to reflect upon the very distinct properties of the various degrees of temperature, with which he is already familiar, and the very different purposes which they are calculated to fulfil. Neither mercury nor antimony, each of which fulfils the most dissimilar indications according to the quantity in which it is administered, comprehends in its scale of doses so many different medical qualities as the scale of temperature does; and if the soothing warmth of a fomentation of 100 degrees of Fahrenheit differs as much from the stimulus of scalding water 40 degrees higher, as a mercurial laxative does from a mercurial sialagogue, the temperature of ice differs quite as much in medical properties from that of a frigorific mixture 40 degrees lower. It has already been remarked that the sensation of cold is hardly perceived on the application of such mixtures to the skin, and, therefore, to speak of them both as *cold* applications, leads to a confusion of their qualities with other effects of temperature of a very different character.

In conducting the treatment of a case of Neuralgia, the most judicious plan is, if there be no condition of the part, or peculiarity of constitution, indicating the use or avoidance of any particular remedy, first to try those measures, whether general or local, which experience has proved to be the most certain, and on the failure of these, to have recourse to others. Although, however, the practice in this disease must be founded on mere

observation or experience, our empiricism ought to be of an enlightened character, and we must take especial care that the remedies employed shall not be incompatible, or oppose each other in their action. It could hardly have been supposed that the application of extreme heat could be advantageously employed in the same case, and nearly at the same time, with a very low temperature; and yet such is the practice of M. Nelaton, an eminent surgeon in Paris, to whom I had the pleasure, when visiting the Hospital of St. Louis some eighteen months ago, of describing the remedial application of the latter agent. His *intention*, it is true, is not to combine their therapeutic agencies, but to use one as a preparative for the more effectual employment of the other. M. Valleix, whose favourite remedy in some of the species of Neuralgia is what has been termed transcurrent cauterization, prevents the pain of the application by previously etherizing the patient; and M. Nelaton, with the same view, suspends the sensibility of the part by congelation.* Now, without denying the efficacy of transcurrent cauterization, which after the high testimony in its favour by so philosophical an observer as M. Valleix, would be very unreasonable, I still cannot doubt that it is to the congelation which precedes it in M. Nelaton's operations, that the benefit is due, and that they would be equally successful were he to omit the second part of the process; I even question whether these two remedies, thus used in immediate succession, are not incompatible. A writer in an early number of the *Gazette des Hopitaux* of last year, who witnessed two successful applications by M. Nelaton of the frigorific followed by cauterization, speaks of it as an unexpected and singular advantage, that the pain usually following cauterization, should be so prevented, as well as that which accompanies it. This secondary pain is, no doubt,

* M. Nelaton qui emploie journellement la cautérization en produisant l'insensibilité locale à l'aide d'un mélange de glace et de sel."—*L'Union Médicale*, 23rd November, 1850.

the result of inflammation, caused by the cautery, and as this is prevented (just as in the treatment of burns by congelation) by the previous application of the frigorific, there must be a loss of that enduring counter-irritating power to which probably the efficacy of cauterization is mainly owing. One would also have supposed that the sudden restoration of heat in this treatment would have as suddenly restored the sensibility ; but I have been assured by Dr. Gueneau de Mussy, physician to the late King Louis Philippe, and who has himself employed this combination with the same views, that this is not the case.

I have preferred giving the following details of lumbago to minutely reporting other cases of Neuralgia, such as sciatica, or tic-doloureux in the face, not as being more important, but because I have had a greater number of cases of this, than of the other species ; and the success of the treatment can only be properly estimated by an extensive application of the remedy. Besides, as has already been remarked, from its being a disputed point whether lumbago be a neuralgic or chronic rheumatic affection, and from its certainly having many points common to both, it may be regarded as a type of the whole class of these painful diseases. The cases reported consist of *all* those which came under my own care at the Brighton Dispensary, in the months of March and April of last year, and some others to which my attention was drawn by the House Surgeon of the Institution, though not belonging to my division of its duties.

Margaret Morison, aged 45, of 55 Hereford Street, admitted at the Dispensary 25th March, 1850.—When I saw this patient on the 26th, she was complaining of a constant and most severe pain in the loins, aggravated by the least motion of the part. She stated that she had, for years, been subject to similar attacks, which usually lasted for several weeks, but none had been so severe as the present. She had passed a miserable night, and the means which had been resorted to for the alleviation of her

suffering, and which had been of the kind that had formerly relieved her, namely, sinapisms and turpentine stupes, had afforded no relief.

After placing her in a proper posture, (in which there was considerable difficulty, from the increase of pain, excited by the movement) an anæsthetic temperature was applied over a space of about eight inches across, and half as many deep, for four or five minutes; the integuments being thoroughly under its influence 9-10ths of that period. The smarting that succeeded the application, and which continued for about ten minutes, was lessened by applying a rag dipped in cold water to the part.

27th. The application completely removed the pain. She fell asleep soon afterwards, and passed a good night. She remains in bed, more, she says, from dread of the pain returning, than from inability to rise. The skin which was subjected to the anæsthetic is very tender, but unless anything presses it, this causes no annoyance.

28th. She is now sitting up. There has been no return of pain in the part that was congealed; but on one side, and more in front, there is pain, which, though comparatively little, she is anxious to have removed by the frigorific. She was desired to send to me if there should be any increase of pain in the course of the day.

29th. The pain having increased, the anæsthetic was applied this morning over the part described, as at first, and with a similar result.

30th. Has been perfectly free from pain since the application of yesterday.

15th April. There has been no return of pain. She was, soon after the last report, able to resume her usual household duties. Although there is no pain, her back, she says, is weak, and she has been latterly taking a mixture containing quinine.

Mary Lamar, aged 70, of 14 Foundry Street, 28th February. For four months has been unable to follow her occupation, as a

sick nurse, from severe lumbago ; the pain being felt on every movement of the spine, and particularly during the night. A large portion of the loins had the frigorific applied to it for five minutes. She did not complain of the application.

29th. The pain was completely and immediately removed by the anæsthetic : there has not been the least return of it.

I saw this patient about a week afterwards ; she had remained perfectly free from pain, and had been able to resume her usual employments. The portion of skin that had been congealed, still remained discoloured ; but the smarting (she stated) that usually follows the application for a few minutes was so trifling, that she had not taken the trouble of applying cold water to the parts to reduce it as I had recommended.

Thomas Olive, aged 35, of 100 Woburn Place, 11th March. Lambago of three weeks' continuance, consequent on continued fever. It is not so severe as to prevent his walking, but he is unable to stoop, and his sleep is much interrupted.

A frigorific mixture was applied for precisely five minutes (a medical friend who was present having measured the time) over the painful part of the loins. He left my room declaring he felt no pain on motion ; and when I saw him four days afterwards, he stated that he had gone to his usual occupation the same day. I requested that he would call, should the pain return in any degree, but I have not since seen him. I have learned that he has continued in perfect health.

Sarah Lock, aged 45, of 12 Union Street, 13th April. Lumbago of two months' duration ; and so severe during the last three weeks as to prevent her turning in, or rising from bed without assistance. The anæsthetic to be applied to the loins for four or five minutes.

15th. Perfect and permanent relief up to this period. The skin to which the low temperature was applied, still continues tender.

22nd. Not having heard from the patient since the preceding report, I conclude she continues well.

This patient is the wife of the person whose case of chronic gout is briefly adverted to in my essay on the treatment of erysipelas by congelation. He admits that he has enjoyed better health since, than he had done for many years previously; and mentions the interesting fact (and the more interesting because it accords with other observations) that though he has not been quite free from gout, the particular joints to which the anæsthetic was applied have not been affected since.

James Gamlin, aged 47, 8 Little Western Street, admitted 22nd of April, had been affected with pain in the back for several days, and had taken medicine and applied counter-irritation without any benefit, when I saw him on the 24th. States that he has had several attacks of lumbago before, some of them confining him to his house for months, but none nearly so severe as the present. Ascribes this attack to a sprain from carrying a heavy weight. The pain is much increased at intervals when it extends over the chest and embarrasses his breathing. A mixture of salts and senna prescribed, to be taken in repeated doses until the bowels should be freely purged.

25th. Rather easier early this morning, but the pain has now returned as severely as ever. To take five grains of iodide of potassium every five hours.

26th. Much suffering during the night and no sleep. Cannot turn in bed without acute pain in the loins, extending, on one side, half round the body. A frigorific mixture now applied for five minutes, over a space of about nine inches across and four deep. To discontinue taking the medicine.

27th. The pain entirely ceased after the application. Passed a good night.

28th. States that his back feels weak, but has had no pain since the 26th.

In this case, as circumstances prevented my conveniently

having recourse to an anæsthetic temperature on my first visit, I was willing to try the effect of cathartics, a remedy which I had lately heard highly commended; but I found these of no greater avail than other former practices in this disease. I saw the patient on the 24th, with another physician, who suspected (as in fact, I did myself) that the great severity of the symptoms might arise from some other cause than lumbago, but the result of the treatment would show that this was the sole cause.

There occurred four other cases of lumbago within the period mentioned, of similar character to those already reported, and all were as quickly cured by the same means. Only one of them can be usefully noticed here. The case of Henry Lloyd, a seaman, living at No. 5, Grosvenor Cottages, Carlton Hill, was remarkable on account of the severity of the symptoms, and the obstinacy with which they had for more than a month resisted all the usual remedies, including mercury pushed to salivation. He was quite incapable of motion, and complained of severe pain in the back. He mentioned that about nine years before, he had been several months in St. Bartholomew's Hospital on account of the same affection. Within half an hour after the application of the anæsthetic to the back, he was able to rise and sit by the fire; but as a little pain remained higher in the side, the remedy was applied again after three days. Although weak from his long confinement and sufferings, he had no return of pain in the back.

The nine cases which have been related and referred to, furnish instances of quickness, completeness, and certainty of cure, hitherto, I believe, unexampled in the whole range of therapeutics. In only three of them was it necessary to make a second slight application of the remedy to remove some remaining pain, which might, probably, have been removed on the first occasion, had the anæsthetic been applied over a large surface, or for a minute or two longer. And it is very important to observe that the cure of these cases has proved permanent as

well as complete; no relapse having taken place (so far as I know, and I have made enquiries respecting nearly all) up to this present period. I have had about an equal number of cases under my care in the Dispensary and private practice since the dates of the above, but their history (had I kept notes of the minute circumstances) would, as differing in no essential respect from the histories already given, convey no useful information. They have all yielded as speedily and certainly to the same remedy as the others did. I am persuaded, therefore, that if the practitioner should fail in the treatment of any case of unequivocal and uncomplicated lumbago by the method in question, his failure, must be attributed to its imperfect application; although a perfect administration of it would, of course, have all the appearance of failure, if made in cases only resembling lumbago, but not of a nature susceptible of being benefited by the same remedy.

The cases of sciatica in which I have employed congelation amount to more than half the number of the cases of lumbago, and it has proved as successful, though not so strikingly so, as more than one application has generally been required, and sometimes it has been necessary to apply the remedy to the leg as well as over or near the sciatic notch.

I have already, in my Treatise on Headache, alluded to the employment of an anæsthetic temperature in facial Neuralgia, which is, indeed, closely allied to certain kinds of headache: but I had then had scarcely an opportunity of using it in any unequivocal instance of this affection. Since that time it has been employed in five severe cases. In one, where the ophthalmic branch of the trifacial nerve was implicated, one application of three minutes' duration, immediately terminated a state of torture that had continued, with short intervals, for a fortnight. In two others the remedy was equally successful, though there was a necessity for repeating it several times. In a fourth case, that of a shopkeeper in Western Street, Brighton, and which was sent to me by a practitioner who had tried many of the usual

remedies in vain, the disease only gave way after repeated applications of congelation while he was under the influence of arsenic. And in a fifth, where the superior maxillary nerve has been affected for the great period of ten years, the relief is only of short continuance. I have had other cases, but these were treated successfully by different measures.

In the fourth case of facial Neuralgia, just referred to, I was doubtful whether the influence of the remedy would reach the seat of the disease, as the pain was felt most acutely deep in the socket of the eye; but this and other instances of the kind, shew that it is not always necessary that the low temperature should pervade the whole extent of the painful part. If one portion of a nerve be thus strongly affected, the adjoining or connected portions probably participate in the affection. We know that in the analogous instance of the application of nitrate of silver to inflamed surfaces, it is not always necessary to touch the whole of these with the medicament.*

In Neuralgia of the side, or pleurodyne, as it has been termed, I have found the application of this remedy most effectual; the details of one case, so treated, have been given in my Essay on Headache. When the pain is widely spread over the side, it is probably more of a rheumatic than of a neuralgic character; and, certainly, it is less frequently of a common inflammatory description than is sometimes supposed. A patient who, on this supposition, had been on more than one occasion bled and blistered for an accession of severe pain in the left hypochon-

* When this can be accomplished, however, the remedial effect must be more certain. The application of lunar caustic to the edges of the larynx, though often of use in a diseased condition of its membranes, cannot be so effectual as if the caustic were applied over a larger surface. I am glad to find that the plan which I proposed six years ago, in my Essay on Therapeutical Enquiry, of inhaling the dust of nitrate of silver by the aid of an apparatus, and which was not then so well received as I had hoped, has since been employed by several practitioners. Indeed, no less than three of these have proposed it as an invention of their own!

drium impeding her breathing and causing cough, was treated on the recurrence of the affection, by the application of a frigorific, with immediate and permanent relief.

In what may be termed general Neuralgia, remedies of general action must be chiefly depended upon, although much relief may be obtained from the occasional use of an anæsthetic temperature applied to the painful parts before such remedies have succeeded in eradicating the disease from the system.

There are diseases attended with severe pain or other uneasy sensations, which might almost be regarded as compounded of Neuralgia and Inflammation, or some other morbid affection. An anæsthetic temperature will, in relieving this pain, generally, at the same time, act beneficially in mitigating or removing the accompanying diseased action. I have, in a separate treatise, spoken of this application of it in Cancer; but its use is not more remarkable in this disease than in various distressing affections of the skin, in ophthalmia attended with severe pain, in glandular inflammation, and in irritable ulcers. I have also, in the treatise just referred to, alluded to its employment for alleviating as well as preventing the pain and inflammation after contusions, sprains, and other injuries of the kind.

The difficulty which, with all my familiarity with this remedy, I have sometimes experienced in applying it to certain parts of the body, will be found in a greater degree by those not so conversant with it; and they must, therefore, in cases of failure, determine whether all the conditions of a proper application are complied with, before the want of success is attributed to a want of potency in the means employed. Certainly, to no cases is the saying of an eminent writer, respecting the application of remedies, "that there is a vast difference between merely doing a thing and doing it well," more applicable than to those which have been occupying our attention. A remarkable illustration of this was lately furnished by an incident in the Middlesex Hospital, where congelation has been used with great advantage in cancer. A patient, affected with this disease,

refused to have the remedy employed, because it had already, she said, been tried without benefit before she left her home, by a surgeon of eminence. It was at first supposed that it could not have been a frigorific mixture that had been used, but she averred that it was the same remedy that she had seen employed by the surgeons of the hospital. Upon questioning her minutely respecting the precise mode in which the frigorific had been placed upon the part affected, I learned that this had been done while she lay in a posture that rendered it impossible to make the application effectual, without the assistance of an apparatus, which had not been used! Unless the remedy be applied properly, it should not be applied at all. Its imperfect use can rarely be of advantage.

CHRONIC RHEUMATISM.

Chronic Rheumatism, though often a consequence of acute rheumatism, is, in its nature and symptoms, more nearly allied to Neuralgia. The parts that had been inflamed in acute rheumatism remain after this has ceased, or as some would express it, after the elimination of the rheumatic poison from the blood, in an irritable and painful state; but, evidently, the disease differs essentially from that which preceded it in the circumstance of its being of a strictly local character; and it cannot be doubted that it often originates from other causes than rheumatic fever, just as boils and other local inflammations originate from typhoid fevers as well as from more ordinary causes. This connection, however, of rheumatic fever with the local affection, will justify a few preliminary remarks on certain opinions at present entertained respecting it.

Notwithstanding the attention which has been directed to everything connected with so frequent and dangerous a disease as rheumatic fever, no satisfactory explanation of its nature has as yet been given. The attempt that has been made at this, on the principles of the humoral pathology, although plausible in some, fails in other points. In the first place, the diseases, which, as there is every reason to think, really do arise from *poison* in the blood, are, as would naturally be expected, of a contagious nature ; such are typhus and typhoid fevers, and the exanthemata : it is not pretended, that rheumatism, or the kindred disease, gout, is contagious. Again, it would be difficult, on this supposition, to explain how rheumatism of the ordinary character could arise from urethritis ; and why both gout and rheumatism should often immediately succeed some local injury or other cause little calculated to generate a poison. That lithic acid is to be found in the blood of persons suffering from gout, in every case, and in gout exclusively, may be true ; but granting all this, we are by no means justified in at once inferring that lithic acid is the *materies morbi*, or cause of the disease. Its presence may be a mere effect of disordered function and of little importance ; and there are, probably, numerous other co-existing derangements as respects the materials of the blood or secretions. It is well known that at the crisis of other fevers, as well as the rheumatic, the urine is usually loaded with its solid constituents, but these fevers are not attributed to their retention in the blood.

Acute rheumatism belongs to the class of constitutional diseases which are usually accompanied by local inflammatory affections. It is the opinion of some, that the joints and heart, which are the parts generally inflamed, are so, as the immediate effects of the same cause ; and in proof of this they allege the fact that the inflammation of the heart often precedes, or is simultaneous with, that of the joints. At any rate, the ancient doctrine of metastasis, or that the heart becomes implicated from the inflammation shifting to it from the joints, is now

almost superseded by the more rational belief that the "disease merely extends or migrates (to use the words of the late Dr. Hope) to the internal fibrous tissue, just as it does from joint to joint, by what Bichat calls the affinity of tissue."*

As it has been observed that the risk of the heart being attacked is in proportion to the acuteness of the affection of the joints, and of the fever, it might have been supposed that the reduction of the articular inflammation, and so much of the febrile disturbance as may be supposed to be sympathetic with the local affection, would have engaged the attention of practitioners. In proportion to the violence of other fevers, as well as the rheumatic, (according to the accurate observations of M. Louis) is the risk of dangerous internal inflammation or secondary lesion; and it is probably because the sympathetic fevers of children are, as a rule, more violent than those occurring in mature age, that rheumatism is then generally accompanied with endo or pericarditis. The unremitting pain, and the fear of the lameness that so often follows long continued inflammation of the joints,

* See an Essay, by Dr. Hope, on the treatment of Rheumatic Fever by Calomel and Opium, in the Medical Gazette for 1837.

It may be remarked with respect to this remedy, which is now very general, that its efficacy must depend upon its antiphlogistic power, first clearly pointed out by Dr. Hamilton of Lynn Regis; and that it must directly reduce the articular inflammation.

This practice, I believe, was introduced by Dr. Chambers; and it can hardly be doubted that his long connection with the medical department of the East India Company's service, must, at an early period, have impressed him with the value of mercury as a general remedy in inflammatory disease. It is a singular fact (assuming the correctness of this supposition) that Dr. Hamilton should have acknowledged that his use of mercury as an antiphlogistic, originated from a communication with an Indian practitioner who had used it extensively in hepatitis. The bark which we owe to the West, is not a more valuable acquisition to medicine, than this employment of mercury which is due to the East. A great objection to the use of mercury with these views, has hitherto been, the severe inflammation and pain of the mouth which it often causes; but for this we have now an unfailing remedy in the direct application of a frigorific mixture.

would also, naturally, have made the relief of the local affection an important indication. But vague fears arising from ancient erroneous theories not quite abandoned, and the results of improper practices which have sometimes been resorted to with this view, have opposed it. In France, indeed, the local treatment of rheumatism has lately attracted much notice, and expedients recommended for subduing the pain and inflammation, have been marvellously well received ; for, in some other countries, a worse fate would befall the individual who should propose the reduction of the local affection by energetic measures, than befell him who first opposed the hot and sweating regimen in fevers ; or (which is more in point) him who restored the use of colchicum in gout. Although this is now universally acknowledged to be, under ordinary circumstances, and when judiciously administered, the best remedy for gout, it was long deemed a dangerous innovation ; and was certainly totally opposed to the old and established system of torturing and crippling the patient by leaving him to “patience and flannel alone.”

The practice in chronic rheumatism has been of the very contrary character : its evident local nature and the total absence of fever, have made local remedies those most confided in. Yet as strictly local affections can often be much benefited by general remedies, or such as act on the system, these ought not to be neglected as adjuvants, at least, of other measures. Iodine and guaiacum have often rapidly afforded relief ; and when acute rheumatism has been the cause, and may still be supposed to linger in the constitution, some of the numerous general remedies which experience has proved useful in it, may be resorted to.

It is not my purpose to enumerate the various stimulants and anodyne applications hitherto employed in chronic rheumatism. I shall only remark, that though sometimes useful, they are, generally speaking, quite as little to be depended upon for permanent relief, as those used in Neuralgia. In lieu of them, and at a very early period of my use of the remedy, I employed

an anæsthetic temperature ; and can recollect no instance in which it has completely failed. It will, of course, have no influence over the debility or partial paralysis that so often is the consequence of, and is mixed up with, long-continued rheumatism ; but by its timely application, this lamentable effect will be prevented. An anæsthetic temperature is applied in chronic rheumatism just as it is applied in Neuralgia ; but it will not always be so speedily curative as in the instances of lumbago which have been related. If there be much inflammation in the part, the application must either be continued longer, or be more frequently repeated.

Although the days of polypharmacy are gone, when prescriptions contained a hundred different constituents, I am conscious that, in medicine, complexity is still preferred to simplicity. Even mystery (as the continued success of that most humiliating of quackeries, homœopathy, proves) is a high recommendation of any thing exhibited as a remedy. Under these circumstances, I shall not be surprised if the treatment which I have recommended, be objected to by some on account of its simplicity ; but as this ought, on the contrary, to be, after its utility, its chief recommendation, I would remonstrate with those who object to it on such an account, in the words of a great authority, whom the opposition and abuse which he encountered in his introduction of Peruvian bark and other great improvements, had taught the necessity of obviating, as far as he could, the prejudices that opposed him. Having described a simple mode of treatment which he had prescribed with success in a particular case of rheumatism, Sydenham says, “ If any one should lightly esteem this method, by reason of its inelegance and plainness, I must tell him that only weak minds slight things because they are common and simple ; and that I am ready to serve mankind at the expense of my reputation. And I must add, that were it not for the prejudice of the vulgar, I am certain that this method might be suited to other diseases which I shall not now enumerate. And, in reality, it would be much more serviceable

than the pompous garlands of medicines with which such as are ready to expire are crowned, as if they were to be sacrificed like beasts."