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Falconer, William, 1744-1824.
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Publication/Creation

London : T. Cadell and W. Davies, 1805.

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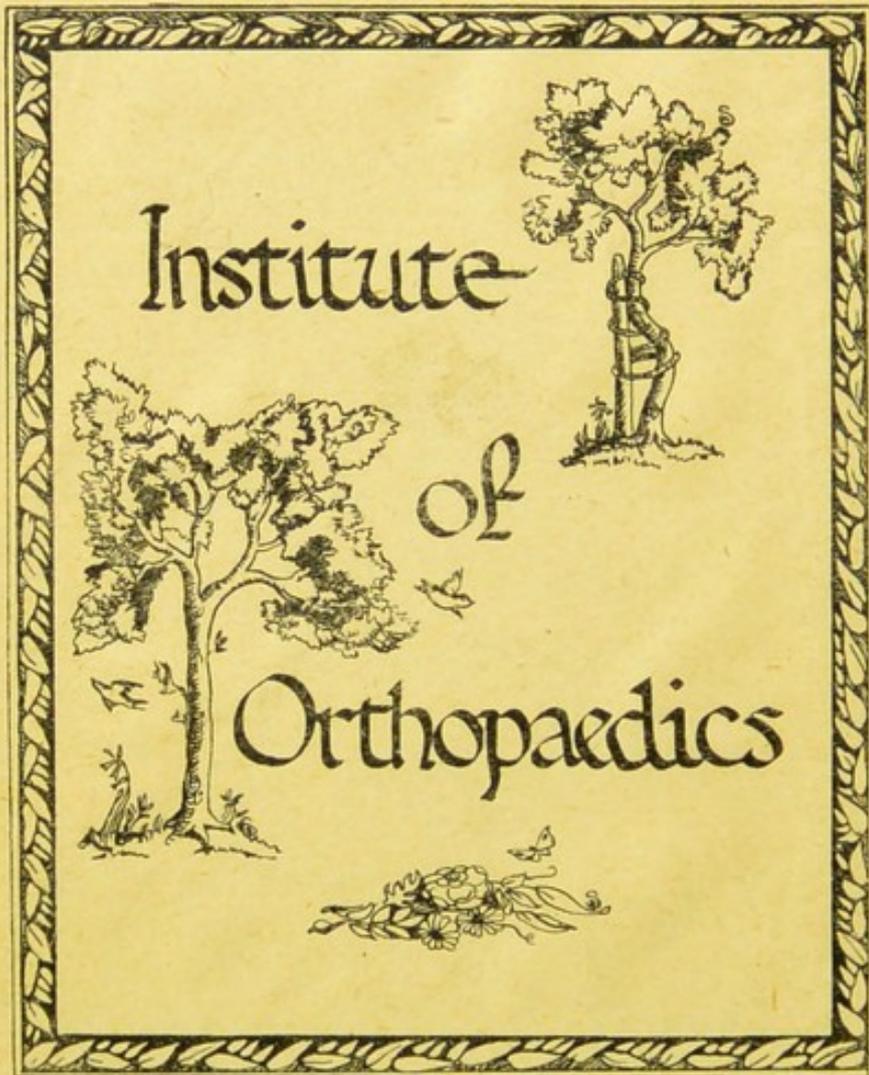
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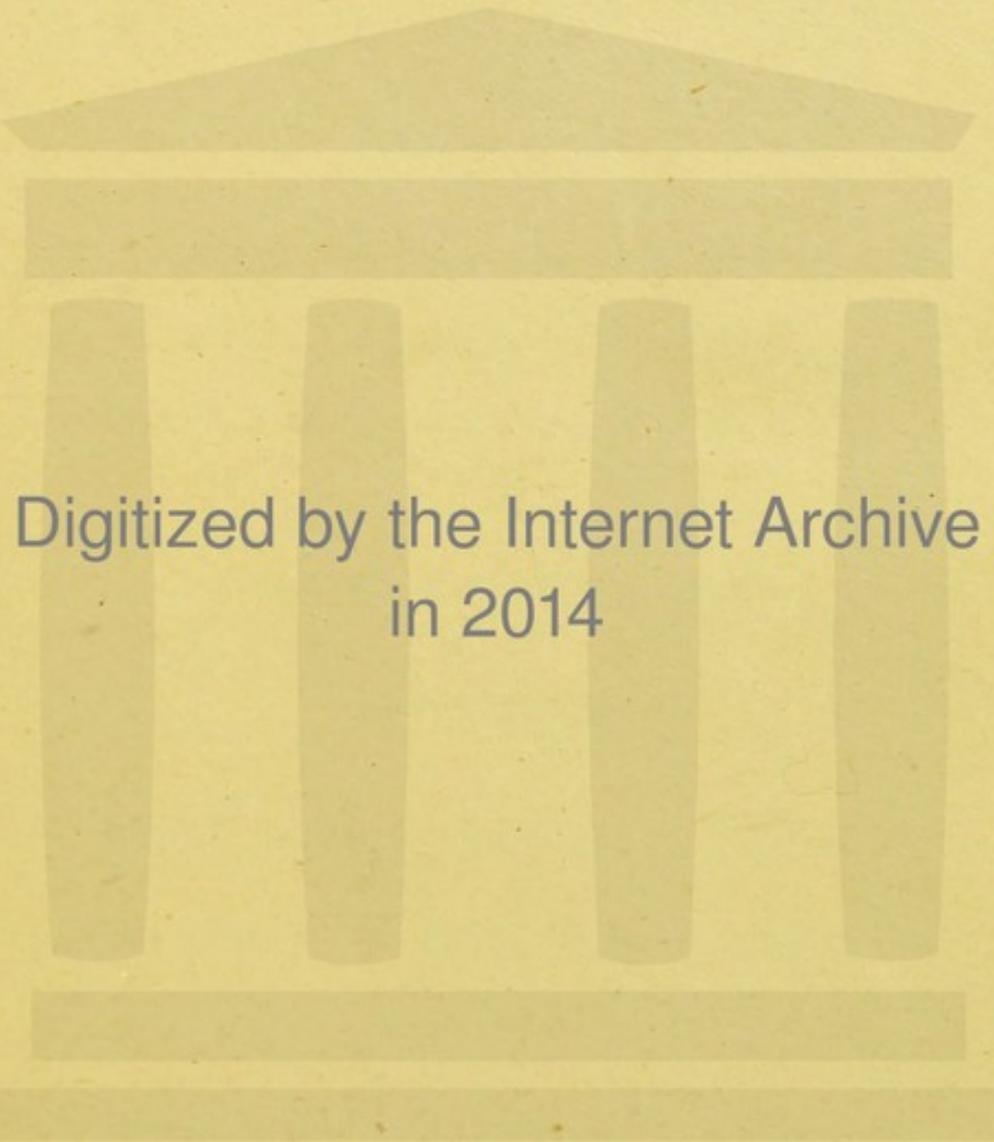




Glass Case

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A DISSERTATION
ON
ISCHIAS ;
OR,
THE DISEASE OF THE HIP-JOINT,
COMMONLY CALLED
A HIP CASE ;
AND
ON THE USE OF THE BATH WATERS
AS
A REMEDY IN THIS COMPLAINT.

BY WILLIAM FALCONER, M.D. F.R.S.
Physician to the Bath General Hospital.

Ἡ δὲ νόσος χαλεπή λίην ἐστὶ καὶ χρονία.

HIPPOCRAT.

London.

PRINTED FOR T. CADELL AND W. DAVIES, STRAND.

1805.

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Printed by G. SIDNEY,
Northumberland Street, Strand.

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A
DISSERTATION,

&c.

THE complaint of the hip-joint, commonly called a hip-case, has (in modern times especially) been much overlooked in the enumeration of diseases.

It has, under the appellation of sciatica, been confounded with rheumatism and gout, and also with psodiac abscess; from all which it differs materially, both in its nature, seat, and method of cure.

I shall endeavour, first, to give some account of the appearance of this complaint, and of its attendant symptoms, and proceed to speak of its causes, and the method of cure, and conclude with some remarks on

what other writers have delivered on the same subject.

Few practitioners have seen this disease at its commencement. Its symptoms are usually inconsiderable and transient, sometimes disregarded, and at others considered only as the consequence of some casual strain or over-exertion, or of too long continued exercise; and, if the person affected be in middle life, or farther advanced, it is mistaken for a gouty attack. It is certainly true, that all these causes may produce symptoms nearly resembling those hereafter described, however different the nature of the several complaints may be.

In the state wherein persons labouring under this disease come to Bath for relief, the seat of the pain is generally described to be, rather behind the great trochanter of the thigh-bone, and nearly on the same level. The persons affected speak of it, as being, to their sensations, deep-seated, but still capable of being aggravated by moderate pressure with the finger on the part where the pain is felt. No external soreness of the skin is observed. The glutæus magnus, and the
vastus

vastus externus muscles generally appear wasted and flabby, and the external line of division between the glutæus and the biceps, and semitendinosus seems in a good measure obliterated, and filled up with a flabby protuberance, as if the glutæus magnus was let down, or spread over the upper part of the muscles which lie immediately below it. Notwithstanding this apparent enlargement, the circumference of the thigh is, in reality, diminished; which diminution in large subjects, I have seen amount to three or four inches, when compared with the side not affected.

Sometimes the breadth of the nates on the diseased side is much increased, though its prominence and firmness are diminished; a man now* in the Bath hospital, has the nates on the left side, at least three inches wider than on the right. The head and neck of the thigh-bone itself may be discerned, by feeling, to be much more prominent on the affected side; and the joint suffers, I believe, a partial dislocation.

A 3

The

* August 27, 1801.

The tubercle, or lower part of the ischium, may, in many instances, (but not always,) be discovered, by feeling it behind, to be lower on the affected side than on the other. A man now in the hospital is a remarkable instance of this difference between the height of the bones on each side; and a pelvis of a person who died at the same place, and was preserved there many years, shewed it still more strongly. The leg on the side affected is sometimes shorter, though it is more frequently longer than on the other. Sometimes the difference is but little; but, I believe, always perceivable. A man, now in the hospital, has the left leg, which is the side affected, at least two inches and a half longer than the right. It often happens that the leg, which had been at first elongated, becomes, in the course of the disease, shorter than the other; but I have seen unquestionable instances, in private practice, as well as in the hospital, wherein the affected limb was shortened, without any previous elongation. Motion of the limb is, I believe, always painful, although not in any violent degree, unless in the advanced stages of the disease; but I have observed, in several instances, that the patients

patients could describe a circle with their toe, with as much ease as they could advance the foot forwards.

In general, they find it difficult to extend the legs sideways, far from each other, though sometimes the contrary is the case. It is, I believe, universally true, that they are unable to support any considerable proportion of the weight of the body on the affected side; or to stand alternately on the legs, as is usually done by persons in health.

The pain is not confined to the spot nearest to, or lying over, the real seat of the disease; but seems to be propagated downwards, in the course of the vastus externus, to the knee, and along the peroneus anticus to the outer ancle. Sometimes the pain of the knee has been so violent as to cause that joint to be mistaken for the seat of the malady, when the hip-joint only was affected. *

It

* There is a considerable analogy between the effects of a carious or inflamed tooth, and those of a similar event taking place in the hip-joint. The pain is, in both instances, diffused to a considerable distance from the seat of the disease; the tooth is raised from the socket, analogous to the lengthening of the limb in hip-cases; and

It is not uncommon for the seat of the pain to be on the upper part of the pectineus muscle,* near to the spot where psoadic abscesses often appear; and, in such cases, the pain descends on the inside of the thigh, nearly in the direction of the adductores of the triceps, the vastus internus, and in a straight direction from the knee downwards to the internal angle.—In the general state of the disease, as above described, I have mostly found the pulse regular, and of the natural standard, in point of quickness, the skin cool, and the evacuations as usual in health;

and when the pain and inflammation subside, the tooth sinks lower into the socket than it was originally. This is analogous to the shortening of the limb after a previous elongation. The thickening of the membrane lining the socket of the tooth, which is caused by the inflammation, raises the tooth upwards; and the wasting or decay of the same membrane afterwards, allows the tooth to sink deeper into the socket, than it did when in its natural situation.

* In a case now in the hospital, the pain began on the outer part of the hip, near the great trochanter, and almost entirely removed from thence into the groin, where it remains at present.

health; and indeed very little change in the general system. But when the disease advances, and the part affected becomes sore and tender to a *slight* touch, and the pain grows acute, throbbing, and uninterrupted; when the swelling increases, and the skin of the pained part changes to a red or pink colour, with an appearance of slight erysipelatous inflammation, the pulse *then* is accelerated considerably, the face changes alternately from a lead-colour paleness to flushing, and the contrary *; the skin is mostly covered with a clammy sweat, the tongue grows white, the flesh wastes, the strength declines, and the situation of the sick person becomes, in a good measure, similar to that of one in the advanced state of a pulmonary consumption. As the Bath waters are confessedly prejudicial in every situation accompanied with hectic fever, we *seldom* witness the last stage of this disease, such persons being usually sent home

* I have been informed by Mr. Phillot, surgeon to the hospital, a gentleman whose judgment, as well as long experience intitle his observations to the highest regard, that he has remarked startings and catchings during sleep to be, in this stage of the disease, some of the most certain signs of the formation of matter.

home as incapable of receiving benefit from this remedy. Sometimes indeed we have been necessitated to retain such distressed objects, until the termination of their miseries; as when they have, through the indiscretion, ignorance, or unfeelingness of those to whose care they were intrusted, been sent hither in the last stage of the disease, and were too weak to be sent back. An abscess, in such persons, has been usually formed on the outside of the thigh, near the seat of the pain; and has either burst of itself, or been opened, and the patient either sunk presently under the excess of the discharge, or continued to linger some time in the same state with those who die tabid, as it is called, from long-continued, and excessive suppuratory evacuations. Every case, however, where suppuration takes place, does not prove fatal. Some escape, and I have been informed, that they have principally been those, wherein the abscess has been suffered to burst of itself, in preference to its being opened with the knife.

If the quantity of matter be not very large, and the hectic fever abates on the discharge of it, there are hopes that attention and professional assistance may prove successful.

But

But the advice of an eminent surgeon *, when speaking of the empyema psoadicum, is here in a good measure applicable, “ that the
 “ instances of those who perfectly recover are
 “ so few, when compared with those to whom
 “ it proves fatal, that it will never be prudent
 “ to make a favourable prognostic.”

In such cases, where the patient escapes with life, an anchylosis, or great rigidity of the joint, often takes place, or at least a considerable shortening of the limb; which last, indeed, is often the consequence of the disease, under circumstances much more favourable.

Hectical symptoms, though they cannot but suggest a doubtful prognostic of success, are not always indications of impending suppuration. If proper management be used, and *timely* applications made, this disposition may *often* be checked. Even when there are the strongest reasons to believe, that a fluid has been effused into the sheaths of the muscles, it has been found possible to cause it to be reabsorbed, without coming to suppuration, or without its being again deposited on some other part, or producing any other bad consequences.

* Mr. Pearson, of the Lock Hospital.

sequences. But matter, when completely formed, is, I believe, never taken up again, without producing some mischievous effects.

Some writers speak of the shortening of the limb as a mark of suppuration being formed. A sudden change from elongation to abbreviation may perhaps indicate, or rather afford a presumption of this kind. But this event will be manifested by many other symptoms at least equally decisive. The mere abbreviation of the limb often takes place early in the disease, and long before the commencement of the feverish symptoms; and may be satisfactorily accounted for, without supposing it to arise from the formation of matter.—This disease is sometimes acute and rapid in its progress, and at others slow and chronical. I have several times seen it come to an alarming height in a few weeks*, and in other instances to continue several years without much perceptible abatement or aggravation.

In one person, two years elapsed after the beginning of the pain and lameness, before
any

* A man now in the hospital is an instance of this.

any perceptible alteration in the length of the limb took place. After that interval, the leg began to lengthen, and advanced so as to be nearly three inches longer than the other; in which state it still continues, (Sep. 24, 1801,) at the interval of full two years from the time it was first observed to become longer. During the above long period of the complaint he has suffered no symptom of fever, nor manifested any signs of suppuration.

In cases that terminate in death, anatomical examination obviously points out the nature of the disease. The head of the thigh-bone, and even the neck, is generally found carious; and the acetabulum, and sometimes part of the bones of the pelvis surrounding it, corroded, and sometimes in such a manner, as to open a passage internally into the cavity of the pelvis. Matter is often found in the cotyloid cavity itself, and in such a quantity as could scarcely be supposed to be lodged there; and it is said, without any marks of inflammation in the parts about it. To these appearances, however, I never have been an eye-witness.

The

The symptoms that occur at the first coming on of the disease, are so inconsiderable, and their advance so gradual, that it is difficult to recount them accurately. A sense of weariness and weight on the affected side are usually mentioned as the first marks of indisposition. This is followed by pain *, slight at first, but which increases gradually. A difficulty of stooping forward succeeds, so that the patients feel much uneasiness when drawing on their stockings, and are often obliged to put them on by bending the leg backwards, and placing the hand behind the body.

Stiffness of the joint, and an aggravation of the pain on motion, soon follow, and, in some persons, a difficulty of separating the
legs

* A man now in the hospital, who came in August 27, 1801, informed me, that his first symptom was a violent pain in the right hip behind the great trochanter, which attacked him after lying on the ground when he had been working in the hay harvest, on July 14th next preceding. This pain continued some time in that situation, and removed in a great measure from thence into his groin, where it is at present. Some little uneasiness still remains in the hip where it first began, but very inconsiderable, compared with what it was at its commencement.

legs sideways ; and in some, though more rarely, an equal difficulty in bringing the legs together. In the former case it has been found necessary, at the hospital, to provide cushions, to prevent the knees galling one another ; and in the latter, a band or belt inclosing both the knees, to guard against a strain, by too great a laterel separation of the legs from one another.

It is perhaps, not difficult to account for several of the above, seemingly contradictory, symptoms, without supposing any real difference in the nature of the disease.

The thigh-bone stands in nearly the same direction with the trunk of the body, only a little obliquely, in such a manner that the upper parts of the bones are at a greater distance from each other than the lower. The neck of the thigh-bone is a protuberance, situated rather interiorly at the upper end of the bone, inclining upward, and a little forward, and making an angle with a right line drawn through the center of the thigh-bone, of about 48 or 50 degrees, but in some subjects the direction of the neck is almost transverse, or at right angles with the trunk of the body.

The

The head of the bone contains about two-thirds of a sphere, not indeed accurately so, but sufficiently inclining to that figure to explain several circumstances that take place in this disease. The largest part of the convexity of the head of the bone lies in the back part of the acetabulum.

I have already observed, that a partial dislocation of the limb takes place, when it either shortens or lengthens; and I think it clear, that this alteration of the length depends on the part of the head of the thigh-bone, or of the acetabulum, which shall be affected. We cannot doubt that the first appearance of this disease is in form of inflammation of the part, which is the seat of the complaint. The pain, difficulty of motion, and in bad cases, the subsequent suppuration, indicate this decisively. The effect of inflammation on the cartilage, or membrane covering the head of the joint, and on that lining the socket, is to thicken it in the parts so affected. If, then, the inflammation affects either the lower part of the head of the bone, or of the acetabulum, it will raise the head of the bone, and at the same time partially dislocate it, and thereby shorten the limb, and cause a projection

jection of the head of the bone. If the cartilage, or periosteum, be thickened in the superior parts, it will thrust the head of the bone downwards, and lengthen the limb. If the disease be seated at the bottom, or the back part of the cotyloid cavity, or in the synovial glands, it will thrust the bone outwards, without much affecting its length. A man, now in the hospital, has the nates on the left side extended laterally nearly one-third farther than on the right, by the projection of the head of the thigh-bone. If the construction of the neck of the os femoris be to go off nearly at right angles to the trunk of the body, the apparent projection will be greater in proportion.

I observed, however, in the instance above-mentioned, that the glutæus muscle was not let down, but preserved the usual marks of separation from the muscles of the thigh.

It was noticed above, that the os ischium, on the affected side, was sometimes, but not always, lower than on the other.—I have seen this take place, both when the leg on the affected side was longer than the other, and also when it was shorter. It proceeds, I think, from the pendulous state of the af-

affected limb, which, whether it be lengthened or shortened, cannot bear its part in the support of the body, but hangs a dead weight on the affected side; and probably drags the parts, with which it is connected, downwards along with it.

When the seat of the pain is situated in the groin, it is not easy, at first sight, to distinguish a hip-case from the beginning of a psoadic abscess; and indeed, some cases of the latter kind have been sent to the Bath hospital, supposing them to be hip-cases. They may, however, I think, be distinguished, by observing, that the pain in the groin in psoadic abscess, though it extends to the upper part of the thigh, and sometimes a considerable way down it, does not shoot downwards to the knee, and from thence to the ankle, as in hip-cases.

In psoadic abscess there is no actual abbreviation or elongation of the limb, though there is sometimes a contraction of the knee-joints.—The thigh-bone does not project in psoadic abscess, nor are the nates larger on the affected side, nor is the glutæus let down over the muscles below it.

CAUSE.

CAUSE.

As this disease is often owing to carelessness, imprudence, or accident, some account of the causes that are most liable to produce it may not be without its use.

The permanent application of cold to the part, is the most common assignable cause.

On this account, and, indeed, for other reasons, hip-cases are more frequent among the lower ranks, and among labouring people; though the higher ranks are by no means exempt.

I have known it originate from damp beds, from working in water, or indeed in wet grounds, or being much exposed to wet casually, as among washer-women and brewers' servants, and others liable to have their clothes often wet.

But lying on the damp ground, especially when the body is heated, is the most common, and, as I think, the most powerful cause.

Labourers in harvest are particularly liable to hazards of this kind, from their lying down, and frequently sleeping, under trees, and on the damp ground, when the body is heated with labour, and exhausted with

fatigue. A very considerable portion of the persons in the table subjoined, owed their complaints to this dangerous indulgence, from which no caution, no intreaty, can divert them, though they are generally as sensible of the danger, as those who suggest the warning not to incur it. But a presumptuous spirit to shew what they esteem a mark of courage, prompts them to incur hazard without any obligation of duty, when, if any real demand for such a service had been made, they would have complained of being required to run so great a risk.

I was some time in doubt if the exhalation from the moist earth might not tend to produce this disease by means of its specific qualities, independent of the successive generation of cold which is produced by constant evaporation. But I am inclined to think, that it did not proceed from any specific quality of the moisture exhaled, but from the cold only; as I have seen the disease produced by sitting at an open window, where no exhalation of any kind could be supposed to have any effect.

Blows and falls are also accounted among the causes of this disease; and it is certain, that

that such accidents may, and often do, produce it.

Over-exercise and strains have the same effect. But none of these causes make any alteration, as far as I know, in the nature of the complaint.

METHOD OF CURE.

As those who resort to the Bath for relief in hip-cases, do it with a view to the trial of a local remedy, our principal intention must be, to put them into such a situation as will enable them to receive such benefit, as the remedy is capable of affording.

It should be observed, that the external application of the waters is alone employed, their qualities, internally taken, being too heating to be compatible with the purpose aimed at.

As fever and inflammation are most adverse to the general intentions of cure, and to the use of this particular remedy, every precaution is taken to prevent, or to check them.

It fortunately happens, that, in *most* instances, the pulse is little, or not at all, accelerated, though the pain and other symptoms

are very distressful. Under such circumstances, after the exhibition of a gentle purgative, it is usual to enter on a course of bathing. If the patient be tolerably strong, and the symptoms moderate, they are directed to bathe in the hot-bath, which is the one specially appropriated for the use of the hospital patients, and is about 105 degrees of heat. The usual time for continuing in the bath is from 15 to 25 minutes, and it is generally repeated twice or thrice a week. After a few times bathing, the dry-pump, as it is quaintly called, or pumping the affected part without bathing, is advised, and this is tried on the part affected, on those days when the patient does not bathe, Sundays excepted. From 50 to 200 strokes of the pump are usually given, the latter of which numbers takes up about five minutes of time.

The first good effects of this application are to abate the stiffness and pain of the joint, and to afford a greater latitude and extent of motion. This is often perceived after using it three or four times. As the effects of the remedy proceed, the soreness and swelling diminish, the nocturnal pain, which is often very distressing, abates, the power of supporting
ing

ing the body on the lower limbs, on the affected side, increases, the legs, whether shorter or longer, approach towards their proper dimensions, and the muscles, that were let down and wasted, regain their natural shape, firmness, and plumpness.

If the use of the waters succeeds as favourably as is above described, we seldom interfere farther, and have frequently the satisfaction to see a perfect cure performed by them, and sometimes in cases which, at the commencement of the trial of the remedy, did not appear very promising.

It happens, not unfrequently, that the waters will shew their beneficial effects to a considerable extent for some time, and then the amendment seems to be at a stand; but still without any accession of new morbid symptoms, or without any aggravation of the old. In such cases we find it requisite to suspend the use of the waters for some time, and to apply a blister upon the seat of the pain; after the healing of which, we often find the application of the waters may be repeated with advantage.—But the state and condition of the patient does not always allow us to pursue such an easy course of
practice

practice as is just described. It sometimes happens, that the irritability of the patient's nerves is so much excited by the use of the bath, as to render much caution necessary in the trial, especially in females.—Sometimes it causes violent perspiration, and much reserve is necessary on that account. In instances of the latter kind, unaccompanied with fever, a light infusion of the bark, with aromatics, is generally serviceable.

But the tendency to fever is most to be apprehended. If the spot where the uneasiness is felt, be externally sore, and tender to the touch, the swelling and pain considerable, and especially if the latter be much aggravated by slight motion, it is necessary to be on our guard, even though *no* acceleration of pulse has *yet* taken place. Cupping-glasses, with scarification, and even sometimes without it, are applied in such cases with advantage; or, if the skin be too sore or tender to endure, without much pain, the suction of a cupping-glass, a large number of leeches, sometimes as many as fifteen, have been substituted in the place of the other, and repeatedly applied, and have proved of great service.

In aid of these applications, saline cooling purgatives, and the common saline draught, with antimonials, are administered with advantage.

For the relief of the pain, which often subsists without fever, or at least without any that is indicated, either by the tongue or the pulse, we find it necessary to employ opiates. I have generally used Dover's powder with this intention, in the quantity of from five grains to a scruple, once or twice in twenty-four hours, and commonly with good effect.

If these means prove effectual (as they often do) to procure the abatement of the symptoms, the bath is cautiously tried, the Cross-bath especially, which is cooler than the other, and that for a short time only, and directed to be conducted with as little fatigue and trouble to the patient as possible. If this can be borne without aggravating any of the symptoms, but rather with a soothing effect, it is directed to be repeated, after an interval of three or four days, repeating the purgative, above-mentioned, occasionally. When the bath can be borne with ease, we recommend the use of the pump in the bath,
in

in which the impetus of the water thrown on the part affected is less than in the dry-pump*, as the stream is conducted to the part, beneath the surface of the water in the bath.

By these means, together with the assistance of a blister on the part, which I think succeeds best when the tendency to inflammation and fever has been somewhat abated by evacuations, we often render the application of the waters safe and effectual, of cases
that

* It should, however be noticed, that the construction of the dry-pump is such, as to admit, with great ease and convenience, the water to be thrown on any part, to which its application is desired, with a great latitude in the impulsive power. It flows through a long flexible leathern tube, with a brass pipe at the end, and may be conducted to any part of the body, at any angle, and of course, with almost any mitigation of the impulse that may be required. It is well known, that the original impelling power being given, bodies strike one another with a proportion of this power, according to the sine of the angle at which they strike. Thus, if we suppose the perpendicular force of a stream of water falling on a plane surface to be as 40, the same stream striking the same plane surface at an angle of 30 degrees, will act with a power of 20 only, the sine of 30 degrees being to the perpendicular, or to the whole sine, as 20 to 40, or as 1 to 2.

that seemed at first view not to allow their use. To reduce the swelling, and to promote a reabsorption of the effused fluid, when that can be safely done, (as I have found it sometimes may) I have directed a trial of the lime-poultice, composed of one part of quick-lime fallen to powder in the air, and two parts of oatmeal, and this made into a poultice with hogs'-lard, and spread about half an inch thick on a cloth, and applied, temperately warm to the part. This may be repeated every night, and removed in the morning, and continued an indefinite time. It generally produces some degree of moisture or exsudation under it, though without raising a blister, and this gradual local discharge is often an effectual, though gradual, method of reducing tumours, both of the hip and of the knee. Vomits of turbith mineral have been sometimes given in incipient white-swellings of the knee; I have seen them so administered, but without such proof, either of their efficacy, or of their safety, as to encourage a trial of them in hip-cases.

It happens indeed sometimes, either from the disease being too far advanced before the
patients

patients are sent, or from the tendency of the constitution to hectic fever, that suppuration will come on in spite of all our efforts to prevent it. Such cases being no longer fit subjects for a trial of the waters, are generally sent home with as much attention as possible to their ease and comfort.

If weather, distance, or the violence of the disease will not admit of their removal, consistently with their present safety, or with proper attention to their sufferings, they remain at the hospital; and four instances of persons who paid the last debt to nature under such afflicting circumstances, are recorded in the following table, and probably a similar fate attended a large majority of those who were sent home with proof, or strong suspicion, of matter being already formed.

TABLE

TABLE of the State of the Patients at their Discharge, who were admitted into the Bath Hospital for Hip-cases, from May 1, 1785, to April 7, 1801, classed according to their Ages.

Ages.	Cured	Much better	Better	No better	Im-proper	Irre-gular	Dead.	Total
Under 10 Years.	—	5	8	1	9	—	—	23
From 10 to 20	30	24	32	9	34	—	2	131
From 20 to 30	20	48	28	13	34	2	1	146
From 30 to 40	22	29	18	2	24	3	—	98
From 40 to 50	21	30	15	7	16	3	—	92
From 50 to 60	8	25	6	1	5	2	2. one of the Small-pox.	49
From 60 upwards	2	7	4	—	—	3	1. of the Small-pox.	17
Total	103	168	111	33	122	13	6	556

It is proper to apprise the reader, that by *cured*, in the second column of the foregoing table, is meant such persons who have completely recovered from their complaint, and who

who have *no* symptoms of the disease remaining, for which they were admitted. By *much better*, is understood such as have nearly recovered, but have still some stiffness, debility, or other mark of the disease remaining. This term, however, is never applied, unless to such as are nearly recovered, and never to crippled or helpless persons, however such may be circumstanced with regard to health.

By *better*, we understand persons who have received obvious and material advantage, but who have, nevertheless, strong marks of the effects of the disease. This term, however, is never applied to such as, although they may have received some temporary alleviation of their sufferings, still labour under hectic or other symptoms, that indicate their health to be declining.

It is much to the credit of the Bath hospital, that a great degree of candour has been uninterruptedly preserved ever since its foundation, above sixty years ago, in representing the state of the patients when dismissed. These, when minuted to be discharged by the attending physician, are again produced before some of the other professional persons,

persons, and examined as to the state they were in when admitted, which is compared with their state when examined, and both these are compared with the report of their state by the attending physician. They are again produced before the committee, and separately and regularly examined as to the same points; and I have repeatedly witnessed the committee requesting the attendant physician to alter the report, when it appeared to them that the amendment was more considerable than it was put down in the report; but I never knew the smallest hint offered, that the state of the patient was more favourably represented by the physician than it seemed to merit, on the examination before the committee. In short, it has been the invariable rule to err, if at all, rather on the side of caution, than on the contrary extreme, and to represent such patients only to have received benefit in any degree, whose cases exhibited obvious and undeniable marks of amendment, not such as are merely probable, or anywise equivocal.

It appears from the foregoing report of the state of the patients, that out of 556 persons admitted into the Bath hospital for
hip-

hip-cases from May 1, 1785, to April 7, 1801, 103, or about 1 in 5.398 received a complete cure; that 168, or 1 in 3.3095 received great benefit, and were nearly recovered; that 111, or nearly one-fifth of the whole received some benefit, and that the aggregate of these three numbers, amounting in the whole to 382, or as 1 in 1.4555, or more than two-thirds, received advantage from a trial of the remedy. Of the above numbers four only died in the hospital of the disease, a very inconsiderable proportion, 33 or nearly a 17th part of the whole, were no better, 122 were deemed improper cases for a trial of the waters, and 13 were discharged for irregularity.

By those set down under the title *improper* are meant, in general, such whose cases were, on their first examination, or soon after it, thought to be improper subjects for a trial of the waters, as being in too advanced a stage of the disease, or from other circumstances of their health that forbid the use of the remedy; much the greatest part of whom ought not to have been sent hither at all. In 97 of these, out of 122, matter was discovered to be formed, or forming, very soon after their arrival,

arrival, which of course rendered a trial of the waters inadmissible. These therefore should be struck out of the account, as proving nothing respecting the efficacy or inefficacy of the waters. The same, it is obvious, may be said of the 13, who were discharged for irregularity, and indeed of those who died, as four of these were, when sent, not in a condition to be removed with safety and propriety, and two died of the small-pox.—This takes off 141 from the list, and reduces the whole number that should be considered on this occasion, to 415. The proportions then will stand thus.

Cured 1—in 4.1553 nearly.

Much }
Better } 1—in 2.54, or nearly two-fifths.

Better 1—in 3.74.

Proportion of those who received benefit to the whole number as—9.2048.—to 10. or above nine-tenths of the whole.

It is unnecessary to observe how much the foregoing calculations, which are taken from the register of the hospital, a most accurate and authentic medical record, are in favour of the efficacy of the Bath waters in hip-cases, and it should *be noticed*, that they plead

strongly for a trial of them in the early stages of the disease. It is more than probable that a large proportion of the unsuccessful cases, amounting in the whole to 159, including those who were *no better—improper*—and those who *died* of the disease, would have received relief, had a timely application been made to this remedy.

Very few of those specified as improper were suffered to make any trial of the waters, and in 97 of them, as I have before observed, matter was discovered at their arrival, or soon after, and the hectic symptoms precluded all hopes from the use of the bath, and indeed left little room for the trial of any other means.

It appears that the Bath waters, applied in an early stage of the disease, have been nearly equally successful at very different ages. Their good effects have been manifested as early as five years old, and as late as 70 years, and the proportion of those who received relief at 60 years old and upwards, was as large as in the early periods of life.

The average stay in the hospital, of the first thirty of the persons *cured*, is 105 days, of the same number of those who were discharged

charged *much better* 155 days, and of the same number of those who were discharged *better* 138 days nearly. The average of the stay of those who were benefited is nearly 133 days, or 19 weeks.

It appears that the Bath waters are more successful in hip-cases at a warm time of the year than at a cold one, as is indeed the case with this remedy, when applied to other disorders.

Of 88 persons taken in order, who received benefit, and who were admitted in the months of April, May, June, and July, 25 were *cured*, 39 were *much better*, and 24 *better*.

Of 105 persons received in October, November, December, and January, 25 were *cured*, 41 were *much better*, and 38 *better*.

It is obvious that a larger proportion of those who were admitted in the spring and summer, and who had a prospect of a series of warm weather, received a greater degree of benefit than those who were admitted in the autumn and winter.

I have thus finished my remarks on the tables, and trust I have established the efficacy

of the Bath waters in this obstinate, painful, and dangerous disease.

They are undoubtedly very effectual, but much time is usually necessary to complete a cure; and indeed, it needs be no cause of surprise, that a disease should take up as many months in its cure, as in some instances it has lasted years before the remedy was applied. In very recent cases I have seen a few weeks complete a cure.

I shall next add a few remarks on the history of the disease, as described by former writers, and the indications of cure, which they recommend or suggest.

The disease of the hip-joint was not unnoticed by Hippocrates. In his treatise on * internal disorders, there are several † chapters on this subject under the name of *Ισχυιας*.—He says, that it sometimes happens from long exposure ‡ to the sun's heat, no improbable cause in a hot climate. It is described as accompanied with a difficulty of turning, or even
of

* *περὶ τῶν ἐντὸς πάθων.*

† Cap. LIV. LV. LVI. LVII. LVIII.

‡ *ἢν ἔλθῃ ἐν ἡλίῳ πελὺν χρονον.* Hipp. ut supra. Cap. LIV.

of * moving the hip-joint, on account of the pain and stiffness. The former of these is described to be in the † back and loins, those parts especially, which are connected with the hips, and also in the knees. Sometimes the pain is in the ‡ groin, as well as in the hip, and when that is the case, it is aggravated by raising the body from an inclined to an erect posture, or on moving sideways. The pain he describes as acute, and accompanied with a sensation of heat. In some instances it is attended with convulsion || of the part, with rigor, and other symptoms of fever. He observes, that many become § lame from this disease, and that an anchylosis of the joint is a com-

* ὁ γὰρ νοσέων σρέφασθαι ἢ κινεῖν τὰ ἄρθρα οὐ δύναται ὑπὸ τῆς ἐν αὐτοῖσιν ἀλγηδόνης, καὶ τοῦ συμπεπηγέναι τοὺς δακτύλους. Hipp. ut supra.

† ἀλγέει δὲ μάλιστα τὴν ὀσφύν, καὶ τοὺς σπονδύλους τοὺς ἐκ πλαγίων τῶν ἰσχίων, καὶ τὰ γόνατα.

‡ ἴσεται δὲ ἡ ὀδύνη ἐν τοῖσι βουβῶσι πλείστον χρόνον, ἅμα καὶ τοῖσιν ἰσχίοισιν, ὀξείῃ καὶ κλυματώδῃ, κῆν τις αὐτὸν ἀνισῆ, ἢ μετακινή ὑπὸ τῆς ἀλγηδόνης οἰμῶζει, ὅκοσον ἂν μέγιστον δύνηται.

|| ἐνίοτε δὲ καὶ σπασμὸς ἐπιγίνεται, καὶ ρίγος καὶ πυρετός. Cap. LIV.

§ ἐκ ταύτης οὖν τῆς νόσου πολλοὶ χυλοὶ ἐγένοντο. Cap. LIV.

a common * consequence. He adds, that it is a complaint of † long duration, and difficult to cure. The above account of the disease, though incomplete, is, as far as it goes, perfectly correct and agreeable to modern observation. The spasm or convulsion of the part, though little noticed in modern accounts, is, when combined with fever, as it is here described, not an uncommon symptom, and usually indicative of suppuration.

The method of cure, which he proposes, is more exceptionable on account of the articles which made a part of the *Materia Medica* then in use, than it is on account of the indications which he directs to be pursued. He recommends a vegetable ‡ and milk diet, the repeated application || of fomentations, the use of purgatives, especially of purging clysters, the application of cupping-vessels to the
part

* Ἦν δὲ ξυμφυῆ καὶ τὰ ἄρθεα ξυμπαγῆ πᾶσα ἀνάγκη χωλὸν γενέσθαι τὸν ἄνθρωπον. Cap. LVIII.

† Ἦ δὲ νοῦσος χαλεπὴ λίην ἐς καὶ χρονίη. Cap. LVIII.

‡ Σίτω δὲ καὶ μάζῃ χρεείσθω μαλδάκη ἄτριπτῃ. Cap. LIV.
καὶ γαλακτοποσίην. Cap. LIV.

|| Πυριῆσαι καὶ σικύην προσβάλλειν, καὶ φλεβοτεμῆειν τὰς ἐν τῆσιν ἰγνύησι φλέβας. Cap. LVII.

Ἐν τούτῳ κλύζειν. Cap. LIV.

part affected, and the drawing blood from the veins in the hams. To this he adds a recommendation to move the * joint frequently, to prevent an anchylosis. In some cases he advises suppuratory discharge to be made from the pained part by † means of several deep sores or ulcers to be produced, either by burning the part with fungous substances, suffered to consume slowly on it, or by means of a hot iron, or actual cautery. The plan of cure here laid down, is in a great measure agreeable to modern practice. Low diet, local bleedings, purgatives, clysters and fomentations, are our principal resources at present, as much as they were 2,500 years ago. Issues, indeed, and suppuratory discharges, where thought necessary, are made in a manner less painful and terrifying; but the purpose aimed at is pursued by discharges of the same kind.

Hippocrates, in the third section of the fifth Book of the Epidemics, relates a case where

* Ἦν δὲ μὴ δύνηται ἴστασθαι, ἐν τῇ κλίνῃ χερὶ περιφέρειν ὡς πυκνότεατα
--- ὅπως ἂν ἐντὸς μὴ ξυμφυῖ ὁ χόνδρος. Cap. LVII.

† Καῦσαι αὐτὸν τὰ μὲν ὀσώδεα μύκησι, τὰ δὲ σαρκώδεα σιδηρίοισι,
πολλὰς ἐσχάρας καὶ βαθείας. Cap. LVI.

where the pain was situated in the groin, and also in the hip-joint, in both of which a suppuration was formed.

Purgatives and bleeding were tried, but in vain, and the patient died at last, of the weakness occasioned by the excess of the purulent discharge. This case appears to me to have been rather a psoadic abscess than a hip-case.

In the succeeding case, which is more decidedly of the ischiadic kind, Hippocrates appears to have been more successful.

He, however, remarks, that in this instance the pain that extended down the leg was not violent, and no suppuration was formed, nor was the general health of the patient * affected. Purgatives, bleedings, and cupping, were the remedies employed, which proved effectual towards a cure.

In the sixth section of the Aphorisms of Hippocrates, there are two that refer to this disease, which, I think, have been mistaken by the translators, who have expressed themselves as if there was an entire dislocation of the head of the bone, when the
word

* Καὶ οὐκ ἐγένετο ἔμπυος, ὑγιῆς δὲ πολλῶν χρόνων. Epid. V. §. 3.

word * implies no more than a projection, which is, indeed, a partial dislocation. The meaning of Hippocrates is, I think, clear enough, that if the head of the thigh-bone be at first considerably protruded, or, as he expresses it, “stands out,” and again sinks back (suddenly is I think implied) into the socket or acetabulum, it indicates a suppuration to have taken place; and this I take to be true, provided, as we may reasonably suppose, that Hippocrates meant, that there be no general amendment, or abatement of the symptoms. The membranes which were at first thickened by inflammation, and which thrust the head of the bone outwards being melted down by suppuration, allow it to fall back again into the socket, from whence it had been pushed by the thickening of the periosteum, or of the lining of the cotyloid cavity. The succeeding aphorism implies no more, than that hip-cases of long continuance, accompanied with a projection of the head of the bone, are apt to induce lameness and wasting of the limb, unless a cautery be used.

Celsus

* Ἐξίσταται—exstat—stands out or projects—literally translated.

Celsus * appears to have been acquainted with the disease, but has left little concerning it.

He observes, that it is of the chronical kind, very painful and weakening, and in some instances mortal. He recommends first fomentations, then warm cataplasms, and afterwards the application of cupping vessels, and of a † plaster of hot brine, a remedy yet in use in some parts of our own country, for local pains. If these fail, he directs the use of the actual cautery, and that the ulcers it produces should be kept open a long time.

Cælius Aurelianus is more diffuse, both respecting the nature and description of the disease, and the means of cure.

He specifies ‡ cold as the principal cause, especially as produced by || lying on the ground, or digging in § moist earth, by such as are unaccustomed to work in that manner.

* L. IV. c. 22.

† Sale calido et humido utendum est. Cels. ut supr. cit.

‡ Perfrictio profunda—frigoris susceptio.

|| Terrena cubatio.

§ Insueta humi fossio.

ner. To these he adds, accidents by falls or* blows, violent strains from exercise, or exertions to lift † weights beyond the strength. He remarks, that it occurs at every time of life, but more commonly in middle age ‡, that it sometimes affects both sides, and calls it, when it appears in that form ||, Ischias duplex. He describes the symptoms to be, a sense of weight in § the part, and difficulty of motion, and in some a slight torpor ¶ and prickling sensation, attended by a sense ** of heat, fever, and restlessness, accompanied by a pain striking through the middle of the †† nates, and from thence upwards towards

* Aut casus, vel repentinus percussus.

† Ponderis levandi ex interioribus conatio.

‡ Fit præterea in omnibus ætatibus, sed frequentius in mediis.

|| There is a man at present in the Bath hospital, who is affected in this manner by working up to his middle in water, a cause which it is evident must operate on both sides alike.

§ Gravedine et difficili motu. Cœl. Aurel. morb. chron. Lib. V. Cap. I.

¶ Levi torpore et formicatione.

** Quibusdam cum vehementi atque pungenti, et fervido dolore.

†† Usque ad mediam natem, ac superius ad inguen, vel ad ancalen perveniens, atque suram, dehinc etiam talum, et pedis summitatem.

towards the groin, and descending from thence through the calf of the leg, to the ankle and the foot. This is succeeded by a * wasting of the leg and thigh from the nates downwards, attended with weakness, and sometimes with † a shortening, and at others with a lengthening of the whole limb. He describes the persons so affected as unable to begin ‡ to move without pain and difficulty, but these somewhat abate on continuing the motion. They are, however, often obliged to stop || suddenly in walking, and when they attempt to renew the motion, they find the same difficulty as at first. They are unable to set the § foot firm and flat
on

* Cruris totius tenuitas fit, quam Græci atrophian vocant, incipiens a clunibus.

† Brevitate cruris, aut ultra naturam longitudine passionis distensione suffecta.

‡ Initia motus impediuntur, fervore partium attestante: ac si perseverans fervor fuerit, motus facilius fit.

|| Tum rursus subsidunt, vel intenti resistunt repente, tanquam fuerant necdum grassu tentato.

§ Ambulant quidam, capitibus digitorum gradientes, alii extenti quidem, sed sinuatis clunibus, ut neque se pronos inclinare valeant: alii contracti atque conducti, qui pejus omnibus habere noscuntur.

on the ground, but are obliged to walk on tip-toe, sometimes with the legs extended, but with the nates pressed inwards, so that they are unable to bend forward. Others have their legs drawn close together, which is esteemed among the worst symptoms.

He supposes the seat of the disease (and as I think rightly) to be in the * peri osteum, or rather the cartilage, covering the head of the thigh-bone, which, when the disease becomes aggravated †, generates matter and sanies, and forms abscesses. The above account is all that is material which I have been able to collect from this writer, and argues him to have been well acquainted with the nature and symptoms of this disease; and the indications of cure, which he lays down, appear to me to be sufficiently judicious, and indeed agreeable to modern practice.

He

* Patitur autem principaliter membrana, quæ ossa circumtegit, quam Græci periosteon vocant.

† Denique augmento passionis, intercreatus humor, et frequenti dolore corruptus, in saniem transiens partes aliquas collectionibus afficit.

N. B. All the passages quoted from this author are from L. V. C. I.

He directs the patient to be laid on a * soft bed, in a warm place, and to use abstinence and rest. The part affected is ordered to be covered with soft wool moistened with warm sweet oil. He also recommends a vapour bath, and a fomentation of the oily kind. Bleeding †, a spare diet, and clysters, are also recommended, and the latter, not merely as evacuants, but as acting in the capacity of an internal fomentation; gentle ‡ laxatives are prescribed, but strong purgatives forbidden. If the pain resists these remedies, he advises scarifications (probably with a view to cupping) of the parts ||, and leeches, together with a fomentation of sponges soaked in

* *Iacere faciamus ægrotantem mollioribus stramentis, calido in loco, adhibita abstinencia, et requie usque ad primam diatriton. Tunc lanis mollibus, ac limpidis oleo calido dulci præinctis dolentia loca contegenda. Adhibenda etiam fomentatio jugis ex oleo dulci calido: item vaporationum commutatio.*

† *Phlebotomia tempore consueto.*

‡ *Adhibenda injectio—quo pariter fota atque vaporata interiora laxamento consentiant.*

Tentanda denique ac properanda sequentibus diebus facilitas ventris.

|| *Adhibenda scarificatio. Hirudines etiam adhibendæ.*

in* warm water; probably to encourage the bleeding

The actual cautery † is also recommended to be applied in such a manner, as to raise a superficial inflammation, but not to destroy the substance of the part to which it is applied. The fungous excrescences ‡ of trees are recommended for the same purpose to be placed on the part affected, and slowly consumed thereon. A cataplasm of mustard directed to raise a blister, or one of mustard, quick-lime and sulphur, made up with oil and water, || and in effect probably not very unlike

* Tunc vaporatio spongiarum ex aqua calida.

† Tunc cauterēs longi atque igniti immittendi, qui quidem cutem tangere minime debent.

‡ Alii ligneos fungos inferius ac superius angustos formantes, patientibus apponunt locis, quos summitate accensos sinunt concremari, donec cinerescant et sponte decidunt.

|| Sinapi admiscentes glebæ calcis æquis ponderibus et sulphuris partem, atque simul conterentes, parvo oleo et aqua admista.

A bag of hot salt is advised much in the same way as directed by Celsus, as above cited. Oportet sacellum linteum implere sale torrido, et apponere patientibus partibus.

like to the lime-poultice above described, but as it should seem more acrimonious.

Such is the basis of the practice recommended by this writer, which is selected from a farrago of strange frivolous additions, expressed in a dialect uncouth, and difficult to be comprehended, but still not so obscure as to prevent our discovering that the author was well acquainted with the appearance of the disease—with its nature—and with the objects proper to be pursued, in order towards its cure.

To come to modern times : it is somewhat extraordinary, that Boerhaave and his commentator Van Swieten, who paid so much respect to the ancient writers, and so frequently cite them, should have neglected the information they communicate, and have confounded this disease with rheumatism and sciatica, with which it has little or no connection, and from which it is clearly distinguished by the writers of antiquity. Van Swieten appears to have borrowed most of his information on this subject from Cotunnus, who probably had often seen the complaint, but neither Boerhaave nor Van Swieten give any description of it, nor suggest any remedies

dies or indications of cure worth repeating in this place. M. De Haen has left a Treatise of 38 pages de Morbo Coxario ; but I can discover little in it that can assist us either in distinguishing, or in curing the disease. I even doubt if he was properly acquainted with it, as distinct from rheumatism and sciatica, and the effects of external violence. He never mentions cold among the causes, although the most common of any. He, however, remarks the partial dislocation,* occasioned by the enlargement of the synovial gland at the bottom of the acetabulum, by which the head of the thigh bone was thrust upwards, and the limb shortened.

His method of cure is founded on a blind veneration for the writings of Hippocrates, whose opinions, though curious and far surpassing what might have been expected at such an early age, and under other disadvantages

* Tumida admodum glandula in cavo acetabuli ut caput ossis femoris intra illud excipi non posset.—Unde demum caput ossis femoris ex cotula trudi cœptum, crus sensim brevius redditum, et integra sed extensa adhuc capsula idem caput ossis ad superiorem cavi acetabulo marginem applicatum. *De Haen de Morb. Coxar.*

tages, it were absurd to introduce to supersede modern experience and observation, which has added much to the history of the disease itself, and suggested means of relief more effectual, as well as more easy to the feelings of the patient, than the coarse and painful applications recommended by the older writers.

Mr. Sauvages seems to have had only a gross and indistinct idea respecting this complaint.

The species called the *Ischias ex Abcessu*, and the *Ischias rheumatica*, come the nearest to the one here under consideration; but the former is little more than an advanced stage of the disease, and the latter is erroneously connected with rheumatism, and both of them are so imperfectly described, as to make it doubtful if the author had any personal experience respecting it.

Dr. Cullen has not included *Ischias* among his genera, or species morborum, but confounded it with rheumatism, with which it has no connection.

Dr. Francis Home, professor of *Materia Medica* in the University of Edinburgh, has noticed this disease in his chemical experiments

ments and histories, and has produced seven cases to prove the efficacy of the oleum terebinthinæ. I have no experience of the remedy, but am confident most of the cases sent to the Bath hospital would not admit of the trial of such a medicine without danger. It seems very doubtful to me if any of those he describes were properly ischiadic cases, except the two first, and even those are not decidedly so.—According to his experience men are more subject to it than women, and this nearly in the proportion of five to two. This coincides nearly with my own observation. Of 556 patients, 413 were men, and 143 women, which is nearly as 5 to 1.7312.

His next conclusion is altogether confuted by the foregoing table.

He says, “that it is a disease of advanced age, and that he does not recollect ever seeing one in this disease in the vigour of life.” Unfortunately for this observation it happens, that of 556 patients, 375, or more than two thirds, were from 10 years old to 40, an interval that certainly includes the prime and vigour of life. The Doctor’s experience in this complaint was too limited to

warrant his conclusion. The late Dr. Charlton, who was himself many years physician to the Bath hospital, and had frequent opportunities of seeing this complaint, has given (collaterally) a brief, but, as far as it goes, a very accurate, account of it, which is indeed the first I have seen which bears the marks of extensive personal experience.

The method of using the waters, which he recommends, is nearly the same with the one above-mentioned. *

It

* Dr. Charlton says, that “ Dr. Oliver justly remarks, that when the case is recent, and the patient young, our waters frequently effect a cure. To which he adds, that when the disease has been of long standing, they seldom do much service; and, if the parts are much inflamed, but particularly if matter is formed, the use of them is highly injurious. Recent cases in all diseases admit most easily of relief, but in the present, we need not despair from the long continuance of the disease, provided it has not advanced to the state of suppuration, and hectic fever. A man now in the hospital is in a fair way of being relieved, though his complaint is of four years standing; and indeed most of them are from twelve months to two years duration.—It is not the long continuance only of the disease, but the advanced stage of it, that renders the trial of the waters improper.

It appears from his account, that the number of hip-cases sent to the Bath hospital, in twelve years, namely, from May 1, 1761, to May 1, 1773, amounted to 296, of whom 192 were cured or benefited, two received no benefit, two died, one was discharged for irregularity, and ninety-nine were improper. The proportion of the persons benefited to the whole number admitted, is greater in the Table I have exhibited above, than in Dr. Charleton's account.

Either of them, however, sufficiently prove the efficacy of the Bath water in relieving such cases.

Mr. Edward Ford, surgeon to the Westminster general dispensary, published, A. D. 1794, a work, intitled, "Observations on the Disease of the Hip-joint, &c."

This gentleman has given a good description of the disease, and has added several useful plates, particularly the first, which shews the state of the muscles covering the nates, and those immediately below them, which afford some of the earliest and most decisive signs of the presence of the disease.

His

His indications of cure appear to me to be proper and judicious ; I am, however, inclined to think that he places too much dependance on the benefit to be derived from issues, and too little on the effects of the warm bath.

Had he considered Dr. Charleton's report of the proportion of those benefited by the warm bath, he would probably have ranked it higher in his estimation. I have thus finished what I mean to say on this subject. I have endeavoured to be as concise as possible, consistent with a sufficient explanation of my meaning. I have candidly stated the facts that have fallen under my observation, having no temptation to make an empirical display of the advantages of the remedy, but merely wish to lay before the public, from evidence not to be questioned, such an account of its effects, as may assist those who are intrusted with the care of persons so affected, to form their own judgment on the probability of success in each individual case.

I cannot, however, conclude without earnestly recommending to those to whom the
testi-

testimonies above recited appear satisfactory, to make a trial of this remedy, in as early a stage of the disease as possible; since, if it be delayed to a late period, it will serve only to aggravate misery, and hasten dissolution.

THE END.

1847
The first of the year
was a very dry one
and the crops were
very poor. The
winter was also
very dry and the
crops were very
poor. The spring
was also very dry
and the crops were
very poor. The
summer was also
very dry and the
crops were very
poor. The autumn
was also very dry
and the crops were
very poor. The
winter was also
very dry and the
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THE END

