Pathological and Surgical Observations on Diseases of the Joints.

By B. C. Brodie, F. R. S. Assistant Surgeon to St George's Hospital, and Lecturer on the Theory and Practice of Surgery. 8vo. pp. 329. London, 1818.

In this volume, Diseases of the Joints are classed pathologically, according to the particular tissue which is first implicated. Thus they come to be divided into those that arise, 1st, from various morbid states of the synovial membrane; 2d, from ulceration of the cartilages covering the articulating surfaces of bones; 3d, from a scrofulous affection, originating in the cancellous structure of the bones themselves; and, 4th, from inflammation of the bursae mucosae lying over, or immediately contiguous to, a given joint. There is a chapter towards the end of the book on curvature of the spine, (from disease of the bodies of the vertebrae themselves, or of their interposed cartilages,) a topic, it must be admitted, sufficiently allied to the principal subject of the work, to allow of being considered in immediate connection with it.

The morbid states of the synovial membrane are inflammation, ulceration, and organic change of structure. Of these the first is by far the most frequent, and the author traces its symptoms with sufficient precision; but as they are principally such as are to be expected from pure inflammation, we may be spared the necessity of dilating upon them in this place. Yet we ought to notice the increased secretion of synovia which always takes place when the membrane is acutely inflamed. This effused fluid increases the general swelling, and when it has accumulated in the joint, its fluctuation can be distinctly felt externally.

The pain, tension, and symptomatic fever in the early stage of inflammation of the synovial membrane of a joint, are always much more considerable than where ulceration of the cartilages is the primary disease. Besides, as the author has well observed, though the pain on any general motion of the joint is greater, the pain on rubbing the articulating surfaces strongly against each other is much less than when the cartilages are in process of ulceration. Hence, in the former (viz. inflammation of the synovial membrane) the limb can support the weight of the body without much uneasiness, whereas in the latter (viz. ulceration of the cartilages) any attempt to throw the weight of the trunk on the diseased limb causes very great pain. From repeatedly observing these facts, Mr B. advises, in every case of
suspected hip disease, that we should press the articulating surfaces of the affected joint strongly together, as this will materially assist our diagnosis. In the true morbus coxarius,

"if the patient be placed on an even surface, in a horizontal position, and the hand of the surgeon be applied to the heel, so as to press the head of the femur against the concavity of the acetabulum, violent pain is the consequence; although this be done in so careful a manner, that not the smallest degree of motion is given to the hip-joint. This circumstance is well deserving of attention; and no one should attempt to give an opinion as to the nature of a disease connected with the hip, without having made an examination in the manner which has been just described." P. 141.

The treatment recommended by the author for inflammation of the synovial membranes is certainly good; yet we wish he had laid more stress upon general blood-letting in addition to cupping and leeching. Cases of this affection not unfrequently occur where the local inflammation is so severe, and the general fever so violent, that nothing short of very decisive general as well as topical depletion can quell the symptoms. We are convinced that when cases of such severity are given over to the ordinary routine of leeches, fomentations, and so forth, death, or at least incurable lameness, will often be the result. That treatment is frequently the most inert, where, as the phrase is, "every thing is done;" because, according to this mode, every remedy, although but of secondary or third rate importance, obtains in its turn a fair trial and its share of trust, while much valuable time is irrecoverably lost, and the really active measures, which alone held out a fair prospect of efficacy, are either superseded, or used with an insufficient degree of vigour and perseverance.

Mr Brodie relates some uncommon cases where an attack of gonorrhoea was attended with a purulent ophthalmia, and a painful swelled state of the joints of the upper, and especially the lower extremities. This he considers to be an affection of the synovial membranes, probably from extension of the inflammatory irritation. We ourselves have met with more than one instance of the like kind; but we always looked upon the articular affection (we know not whether rightly or not) as simply wandering rheumatism, accidentally co-existing with the gonorrhoea. What led us to adopt this opinion was, that the subjects of the disease were men of intemperate habits, and had been, as they themselves familiarly expressed it, keeping it up for several days before the symptoms appeared. It is not to be wondered at, that exposure to night-dews, after being debilitated by venery and excessive drinking, should have induced an attack of rheumatism. In the cases we have seen, the digestive organs were always greatly deranged, the pulse from 96 to 108,
the tongue deeply furred, and the belly costive. The complaint proved tedious, but ultimately yielded to purgatives, small doses of pulv. ipecac. comp. and remedies directed to restore the healthy tone of the stomach and bowels. We beg to put it to Mr Brodie's recollection, whether the cases he treated also occurred in persons addicted to intoxication. It appears that he found the vinum colchici more successful than any other remedy in removing this painful and tumescent state of the joints.

In order to promote absorption of the fluid effused in cases of inflammation of the synovial membranes, the author advises repeated blistering and frictions. For the latter purpose he thinks the liniments of our pharmacopoeias too weak,—(a circumstance which we have long been convinced of,) and recommends the following in their stead.

"Ρ. Olei olivae ʒiss:
Acidi sulphurici ʒss. M. Fiat linimentum." P. 35.

He adds a judicious caution, that friction should not be employed too freely, as it sometimes causes a return of inflammation in parts where the inflammatory disposition may still linger. When this untoward effect results, the friction should be laid aside, and topical bleedings renewed.

He comes next to state his opinion on the pathology of morbus coxarius; the primary morbid cause, he conceives, is ulceration of the cartilage covering the head of the femur and the concavity of the cotyloid cavity.

"Ulceration of cartilage may be the consequence of inflammation of the cartilage itself, or of the bony surface to which it is connected; but in many instances there are no evident marks of inflammatory action having preceded it, either in one part or the other; and the inflammation which afterwards takes place, appears to be rather the attendant on, than the cause of, the ulcerative process. The ulceration of soft parts is usually, and, as far as I know, always, attended with the secretion of pus; but it is otherwise with the articular cartilages, in which suppuration seldom takes place, while the ulcer is small, and often the disease proceeds so far as to cause caries of the bones to a considerable extent, without matter being formed in the joint. This circumstance is deserving of notice. It has been long established, that suppuration may take place without ulceration; and it appears, that, in this instance, ulceration may take place without the formation of pus." P. 101, 102.

That ulceration may sometimes take place without the formation of pus, we are willing to concede to our author; but that it ever takes place without being preceded by inflammation, is what we cannot possibly conceive. On the contrary, we are accustomed to think, that, in every case of this sort, a languid
inflammation, such as is incidental to scrofulous habits, precedes
the process of ulcerative absorption, and by its presence urges
on the progress of destruction in the cartilages and bones of
the joint. What is termed the scrofulous diathesis manifests
itself, for the most part, by this tendency to slow and insidious
inflammation. It generally makes its appearance in that part
of the body which is either originally weakest, or which has
been rendered so by the application of cold, or other causes of
an injurious tendency. In this way the local disease is often
merely an index, or topical outlet of the constitutional disorder,
which, if restrained in one quarter, is extremely apt to break
out in another, under a different form. As illustrating these
opinions, we may state the case of a young lady that came under
our observation within these twelve months. She had for a
length of time laboured under well-marked symptoms of the
morbus coxarius. These had even gone so far as to impair her
general health, and induce hectic fever. At the distance of seven
months from the first appearance of the complaint, the disease
in the hip underwent a spontaneous cure,—we say spontaneous,
(for it would be too much to attribute this favourable change to
the caustic issues, &c. which had, for the six preceding months,
been tried in vain;)—her relations flattered themselves that she
would do well. But ere long symptoms of confirmed phthisis
occurred, and in a few weeks put a period to her life. Now,
we regard the constitutional cause of both diseases, in this case,
to have been one and the same; and are inclined to believe, that
there was a conversion of the scrofulous inflammation of the
hip into a similar affection of the lungs, which were tubercu-
losous; and that the occurrence of the latter was the cause of
the cessation of the former, which, but for this occurrence, would
in itself have proved fatal.

We can assure Mr Brodie that, though we have thus taken
the liberty to oppose an opinion to an opinion, we mean not to
dogmatise on the subject. Much is yet to be learnt, and, upon
the whole, the matter is one that must be committed to future
investigation.

The following account of the progression of the symptoms is
well drawn.

"1. Ulceration takes place in the cartilages generally in that
of the acetabulum first, and in that of the head of the femur after-
wards: sometimes it begins in both at the same time.

"2. The ulceration extends to the bones which become carious;
the head of the femur is diminished in size, and the acetabulum is
rendered deeper and wider.

"3. Abscess forms in the joint, which after some time makes its
way by ulceration through the synovial membrane and capsular liga-
ment into the thigh, or nates, or even through the bottom of the
acetabulum into the pelvis. Mr Astley Cooper has shewn me two specimens, in each of which the abscess had burst into the rectum.

"4. In consequence of the abscess, the synovial membrane and capsular ligament become inflamed and thickened. The muscles are altered in structure; sinuses are formed in various parts, and at last all the soft parts are blended together into one confused mass, resembling the parietes of an ordinary abscess." P. 120.

In the advanced stage of this dreadful disease, either the acetabulum becomes absorbed, and allows the head of the femur to slide upon the dorsum of the ilium, or the head of the bone itself is destroyed, and thus admits of the femur being drawn upwards by the action of the muscles. In this way the shortening of the limb is sufficiently accounted for. But, previous to this, there has been observed an opposite symptom, namely, elongation of the limb, which has greatly puzzled pathologists. Our author thinks that this elongation is apparent only, and caused by obliquity of the pelvis:

"The apparent elongation is produced by the position of the pelvis being altered in such a way, that the crista of one ilium is visibly depressed below the level of that of the other. It is easy to understand how this effect is produced, by observing the position in which the patient places himself when he stands erect. He supports the weight of his body on the sound limb, the hip and knee of which are in consequence maintained in the state of extension. At the same time the opposite limb is inclined forward, and the foot on the side of the disease is placed on the ground, considerably anterior to the other, not for the purpose of supporting the superincumbent weight, but for that of keeping the person steady, and preserving the equilibrium. Of course this cannot be done without the pelvis on the same side being depressed. The inclination of the pelvis is necessarily attended with a lateral curvature of the spine, and hence it happens that one shoulder is higher than the other, and that the whole figure is in some degree distorted." P. 146, 147.

We are satisfied this view of the subject is perfectly correct. Indeed, this very opinion has been advanced by Mr John Hunter, and farther illustrated by Mr Crowther in his work on White-swelling, published in 1808, though Mr Brodie neither refers to the one or other of these gentlemen.

We regard as one of the novelties of the age, that over-confident spirit by which too many modern writers erect themselves into independent observers, and treat their subject with all the ha.diesse of seeming originality, just as if it had never been written upon—and well written upon, before. Instead of being at pains to consult the labours of their predecessors, 'tis odds but they endeavour to make a merit, in the eyes of the reader, even of their negligence; and then we are sure to be treated with a few stately periods touching the tyranny of great names, and the mischief of slavish obedience to the tenets of books!
Yet those who act upon this cavalier principle are surely guilty of inconsistency, if not of presumption: for who, think they, are to read their books, when they will not do the like favour to others? If all were to imitate their contempt for the writings of those that have gone before us, what, in a short time, would be the fate of their own lucubrations?

These are general remarks, and we state them without intending any particular reference to Mr Brodie. On the contrary, we believe him to be a writer of a far better stamp; yet, honestly speaking, there are, for so well-informed a writer, marvellously few acknowledgments to those authors who have already treated so ably of diseases of the joints.

The following remark on caustic issues will be read with great pleasure; it bespeaks the man of experience.

"I have seen several cases in which the caustic issue has, in the first instance, removed all the symptoms of the disease, and yet, after some time, notwithstanding the patient has remained in a state of perfect quietude, and there has been no evident cause of aggravation, they have returned nearly in the same form as before, and with their original severity. In some of these cases their recurrence is to be attributed to the issue itself, which, from some cause that the present state of our knowledge does not enable us to explain, produces an effect apparently the opposite to that which it produced when it was first made. The issue being allowed to heal, the symptoms again subside, and, perhaps, the patient may find himself entirely and permanently relieved before the sore is completely cicatrized. The same thing may be observed, perhaps more frequently, where a blister has been long kept open by means of the savine cerate; and here, if the blister be of a large size, the recurrence of the pain is usually attended with a furred tongue and much constitutional irritation, of all which the patient is relieved when the blistered surface is allowed to skin over." p. 179.

We are somewhat surprised that the author has not employed corrosive sublimate as an escharotic, after the manner recommended in a communication at page 432 of the fifth volume of this Journal. We know that, in the hands of various practitioners, it has been successful. We think also that the application of the Moxa, in the manner recommended by Baron Larrey, and other Continental surgeons, deserves a more extensive trial, in chronic diseases of the joints, than it has hitherto met with in this country.

We have now given an account of the principal contents of this work. The remaining two chapters are on Curved Spine, and Inflammation of the Bursæ Mucosæ; but they do not suggest any particular remark.

We conclude by recommending the volume before us as a
useful one; but we must confess, that, as a whole, we found it neither so interesting nor instructive as Mr Brodie's known ability and opportunities led us to expect.

IV.

Physiological and Medical Researches into the Causes, Symptoms, and Treatment of Gravel. By F. Magendie, Doctor in Medicine of the Faculty of Paris, &c. &c. Translated by a Member of the Royal College of Surgeons in London. Longman and Company, 1818. 12mo, pp. 103.

The principal novelty of this book consists in the author's recommending abstinence from animal food in the treatment of calculous affections, on the new ground that such diet is injurious, by furnishing the azote which is essential to the production of lithic acid. His treatment is, in fact, the converse of that suggested by Mr Rollo in diabetes, and it produces frequently a discharge of urine, the copiousness and qualities of which indicate a condition of the system nearly approaching to that of this latter malady.

"I have myself," he tells us, "analysed the calculous concretions voided by patients afflicted with gravel, and in every instance, above thirty in number, found them composed of uric acid, united with a small proportion of animal matter. Thus overlooking, or considering as exceptions, the very rare cases where gravel has been found wholly, or in part, composed of oxalate and phosphate of lime, cystic oxide, &c. we may state, that this substance is constantly composed of uric acid, united with a small proportion of animal matter, which is probably the mucus that lines the urinary passages." pp. 7, 8.

It is, accordingly, to the chemical composition and production of lithic* acid, that the author, in the first instance, di-

* We consider this name as far preferable to that more generally employed, of uric acid, for the reasons mentioned by Dr Marcet, (on Calculi, p. 59)—the latter name appearing objectionable, "not only because the substance in question is found in gouty concretions as well as in urine, but also on account of the close resemblance which the term uric bears to that of urea, another and most characteristic constituent of urine totally distinct from this."