

# Clinical Lecture

ON

## DISEASES OF JOINTS.

*Delivered at St. Thomas's Hospital.*

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GENTLEMEN,—In my last clinical lecture I detailed to you a case of acute disease of the knee-joint, in which I was obliged to mutilate the man to save his life.

Such cases used to be more common than they are at present. The advance of surgical science has nipped them in the bud, and we usually now receive them into our hospitals in a more chronic form. I should, perhaps, have hardly thought the case worthy of clinical remark had I not heard that a provincial celebrity had positively denied the necessity for any operative interference. I thought, then, that if a man of practical experience forbids the operation, it must be just such an illustrative case as would be of use to you. Let me, then, remind you, that it was the severity of the constitutional irritation, and the agony the patient suffered from the slightest motion of the joint, which in me decided the momentous question of amputation or no amputation.

To-day I shall speak of nine cases of diseased knee-joint in which I believe I have succeeded in saving both limb and life without any operation, and one case where the same ultimate result has been obtained by the excision of the joint.

Some of these cases were sent to me from the country as good cases for excision, which of course implies, or ought to imply, that there was no prospect of curing them without an operation; one came from a metropolitan dispensary, as a forlorn hope. The poor boy was almost *in extremis*.

There is one point which must, of course, strike you in listening to these details—viz., the length of time that some of them have been in the hospital. The power of retaining our patients in the hospital until a cure is effected is a privilege which can only be enjoyed in the old, well-endowed hospitals. And, for the sake of humanity, what a blessed privilege it is!

It is true that chloroform has robbed operations of all their pain during the performance, but it cannot remove the after pain, and it cannot remove the danger which is and must be attached to them, even when the most skilful hands manipulate.

I cannot deny that the length of time which is required to accomplish a perfect, usable ankylosis of the knee joint in the adult (from one to two years) is an objection to the plan which I am now advocating. It is true that in a favourable case for excision the cure is frequently complete in one-third of that time. It is also true that the cases which do best, and get well most rapidly, are those where there is very little disease, and where the operation ought never to have been performed. When I speak of from one to two years being required to perfect an ankylosis, I refer to patients above the age of eighteen or twenty.

In different forms of disease there is also a great difference in the length of time. In scrofulous caries of bones entering into the composition of a joint, the cure is always very slow and very difficult. This observation applies almost equally to cases of excision. There is another point in favour of excision. If the operation succeeds—that is, if your patient neither dies from the effect of the operation, which I must allow is very rarely the case, or the limb is not obliged to be removed ultimately, an event not so uncommon as we could wish, then the ankylosis is more certain than that which is obtained by medical as distinguished from operative surgery. I must confess that I have been disappointed in some of my cases of natural as distinguished from artificial ankylosis, by their return to the hospital after I had hoped a complete cure had been effected. This observation applies to the boy whose joint I ultimately excised, and also to Oliver R—. In the latter instance about a month's rest and a little counter-irritation have apparently completed our triumph over the disease.

I wish to put the subject fairly before you, and not to make you attach too much value to the medico-surgical treatment as opposed to the operative; nor must I forget that the longer

we practise our profession the less we are inclined to operate, unless the indications for the necessity are very apparent, till at last there is too much disposition to avoid all operations. Though I know that I have not arrived at that stage of my surgical existence, still I must take care the tendency does not tincture my instructions.

I must not detain you any longer from the consideration of the cases, the notes of which I will, however, curtail as much as possible.

CASE 1.—John D—, aged twenty-four, labourer, was admitted into Abraham's ward June 11th, 1860, with disease of the right knee. He states that this knee has always been larger than the left, and when about twelve years old he injured it by a fall; but it got quite well in a few days. He attributes the origin of the present disease to a cart-wheel running over his knee seven years ago, since which it has never been well, though he has been able to walk at intervals. He has now been laid up for more than five months, and has been under the care of an old dresser of mine at the Stamford Infirmary, who had applied blisters and issues; but as it did not appear to get much better, he sent the man up to St. Thomas's as a fit case for excision.

The joint was considerably enlarged, with some tenderness on pressure on the surface, and great pain when it was moved, or when the articular surfaces were pressed together. The pain at night was so great as to prevent him from sleeping. He was rather pale and weakly-looking, but had little febrile disturbance, and his appetite was good.

This was certainly a very favourable case for excision; for although the joint was completely disorganized, the disease was not scrofulous. And these are the cases which usually progress so favourably after an operation; but you have heard my reasons for avoiding an operation unless necessary to save life.

On admission, the limb was placed on a Liston splint, and a poultice applied to the knee.

June 13th.—Moxa to the inner side of the joint, that being the most painful part. Iodine mixture twice a day.

16th.—Ordered cod-liver oil, one drachm; tincture of sesquichloride of iron, twenty minims; three times a day. Twenty-five minims of tincture of opium every night. Moxa to the outer side of the joint.

22nd.—Much less pain in the joint, and he sleeps much better. The knee appears to be slightly diminished in size.

30th.—The joint appears to be rather more swollen, but he does not complain of increased pain.

July 5th.—No alteration in the size of the knee, but rather less pain. Moxa applied just below the patella.

12th.—The joint is rather smaller and more of its natural shape. There is now very little pain, but still some tenderness on pressure on the inner side. To leave off the opium, as he now sleeps well at night.

Aug. 2nd.—The joint is assuming a more natural shape, and there is no pain except on pressure. He sleeps well without opium, and his general health and appearance have much improved. Moxa ordered on the inner side.

29th.—Still some tenderness on the inner and lower part of the knee; otherwise much better. He sleeps well, and his appetite is good.

Sept. 3rd.—Moxa ordered.

December.—Since the last notes, his general health has been very good; the joint is free from pain, and has gradually been returning towards a normal shape, and ankylosis is slowly proceeding. The limb has been kept in a state of perfect rest throughout.

Ankylosis seems to be almost, if not quite, perfect; but great care will be necessary for some time. In a few days I shall remove the splints, and allow him to move the limb a little in bed. If this amount of exercise do not induce any pain or fresh inflammation in the joint, I shall next apply a gutta percha splint, and allow him to get up and walk a little with crutches; but I do not expect that he will be able to leave the hospital with safety for the next six weeks.

CASE 2.—Henry H—, aged eleven years, was admitted on the 29th of June, 1860. He has been ill ten weeks with swelling and severe pain of the left knee, which came on after kneeling on the damp ground, bird-catching with his father. He was quite well previously. He is now in a state of complete exhaustion, with an emaciated countenance, expressive of great suffering, and cannot bear the slightest movement of the leg without screaming from pain. An abscess has been opened in the neighbourhood of the knee-joint, and is discharging pus freely, and there is a large slough over the sacrum. Ordered,

cod-liver oil, one drachm; tincture of sesquichloride of iron, ten minims: to be taken twice a day.

When I first saw this poor boy, I believed that immediate amputation would produce a fatal result. I had, therefore, but one course to pursue—namely, to strengthen his vital powers, either to enable him to bear the operation if I could not improve the condition of the joint, or, what I hardly dare hope for, to do without the knife altogether.

The leg was placed on a Liston splint, and a linseed-meal poultice applied. A water cushion was ordered for the back. To have a mixed diet; wine, four ounces; porter, one pint.

July 4th, (five days after admission.)—Appetite and general health greatly improved; less pain in the knee.

11th.—The knee is better, but an abscess of considerable size has formed on the outside of the thigh. This was opened a little below the trochanter major. A splint, with a spinal support, was ordered.

21st.—Health has greatly improved, and his appearance is much altered for the better since admission. The slough on the sacrum has nearly healed; also, the abscess on the hip, and the knee is less swollen, and much less painful.

August.—He can lift the leg from the splint without pain, and firm ankylosis is taking place; his health is comparatively good.

September.—The knee appears quite solid. No fresh symptoms.

October.—The splint was left off.

November.—The knee remaining free from pain, he was allowed to get up a little; but in a few days it became swollen just below the patella, unaccompanied by pain. He was ordered to keep his bed. The potassa fusa was applied over the inflamed part, and the limb replaced on a Liston splint.

December 31st.—Under the above treatment the swelling has subsided. The leg is still kept on the splint. The boy's health is good.

Now, as regards the cause and progress of this disease, you must have been struck with its great similarity to that of the poor fellow whose leg I was obliged to amputate. Why the difference in the results? The different ages of the two patients is quite sufficient answer without any reference to the treatment.

The next case is a very simple one, but is likewise instructive:—

CASE 3.—Henry N—, aged eight years, was admitted Feb. 14th, 1860, with disorganization of the knee-joint, the disease having existed a year and a half. There was not only a painful and swollen condition of the joint, but considerable contraction. The active disease was gradually subdued by rest, with moxas and appropriate tonics, including cod-liver oil. The limb was then gradually straightened by means of a Liston splint, with an Archimedean screw at the knee, and a leather pad over the joint, with straps above and below. The limb is now quite straight, and ankylosis is going on favourably; but there is still slight tenderness on the outer side of the patella, which it is expected will soon be removed, when he will be able to leave off the splint.

This case is deficient in previous history; but the appearance of the joint told its own tale. There had been active disease at work; but the conservative action of Nature was prevailing. Ankylosis was nearly complete; but the ankylosis had not been properly directed by the science of surgery. Instead of the limb being nearly straight, it was bent at such an angle as to be useless as an organ of support and progression.

In such cases I always endeavour to get a straight limb by gradual extension, in preference to forcible extension under the influence of chloroform; and, in this instance, I have succeeded.

CASE 4.—Ellen B—, a strumous, delicate child, six years of age, was admitted into St. Thomas's Hospital, July 10th, 1860, with old-standing disease of the knee-joint. Her right leg was flexed at an acute angle, the foot being turned outwards, and the joint was marked with scars of old abscesses. Cod-liver oil was given twice a day, with full diet, and the limb was put upon a Liston splint. The splint was continued till the 2nd instant, when irons and straps were substituted. During the time she has been in the hospital, one or two abscesses have appeared in the joint, but have healed again. The limb is now quite straight, and though the joint is enlarged, there is no sign of the presence of disease in it. She is able to walk about the ward.

In this case the disease had completely subsided, which was not the case in the last; but the deformity was so great that I determined to extend it forcibly.

CASE 5.—Ann P—, aged six years, was admitted May 14th, 1860, after two years' previous disease of the knee-joint. She was sent to me by an old dresser as a fit case for excision of the joint. The patient was a strumous child, but now in good health. There was much swelling and pain in the joint, and the leg was flexed at an acute angle. There was no opening into the joint.

May 16th.—Ordered, cod-liver oil, one drachm; tincture of muriate of iron, ten minims: twice a day.

On May 24th, I made forcible extension under chloroform. After the operation there was much increase of the pain, and the child suffered from feverish symptoms. Opium with liquor of acetate of ammonia was given for a day or two after the operation.

31st.—The swelling of the joint has much subsided, and the feverish symptoms have nearly disappeared. The splint was continued till the end of November, when ankylosis was nearly complete.

CASE 6.—Caroline W—, a strumous girl, aged seventeen, was admitted into the hospital March 20th, 1860. At the early part of the year she had been attacked with synovitis and ulceration of the cartilages of the left knee-joint. Some time before, she had been in the hospital, suffering from disease of the same joint. The right limb is shortened and contracted, and has been diseased for fourteen years. Cod-liver oil and tincture of muriate of iron were ordered, and the limb placed upon a Liston splint. As there were considerable swelling and tenderness in the joint, six leeches were applied, and a linseed-meal poultice. Gradual improvement took place. During the spring and summer, potassa fusa was occasionally applied, and the poultice continued. In the autumn, irons and a boot were used, and the limb was kept extended, and by October, ankylosis was tolerably complete.

Dec. 13th.—She was discharged from the hospital, able to walk about the ward, the joint being perfectly stiff and devoid of pain.

CASE 7.—James W—, labourer, aged thirty-five, admitted Aug. 23rd, 1859. Whilst at work about four months ago, loading a cart with thorn bushes, he was struck on the knee by a bough, a thorn upon which penetrated the joint immediately above the patella. The thorn was extracted, and considerable inflammation followed; this ran on to suppuration, and two incisions were made to let out the pus, but whether the pus lay internal or external to the joint cannot be clearly ascertained. When admitted, the joint was red and hot; the cellular tissue covering it was very hard and brawny, and swollen to such an extent as to obliterate all the depressions and protuberances, and give it somewhat of an oval shape. There was a continual, acute, gnawing pain, very much increased by motion. The extent of this latter is very limited. There is frequently convulsive starting of the joint at night. It was put on a Liston splint, slightly bent, and a poultice applied. Iodine mixture, twice a day, was given.

Sept. 29th.—A small piece of dead bone was extracted to-day. The pain is not so severe, and only occurs at intervals; there is also a greater extent of motion. I ordered a moxa to be applied.

Nov. 15th.—Good deal of induration about the joint; not so much pain; health very good.

16th.—Opening over joint discharging still; joint rather painful.

May 21st.—Original wound still discharging. A little ankylosis has taken place; joint hard all round, and not painful unless moved.

August.—Wound healed; going on well. Moxas occasionally used. He is the very picture of health.

November.—Some small amount of inflammation still remains; ankylosis nearly complete.

December.—Liston splint removed, and gutta serena substituted. The man attempted to get up, but found that his leg was made worse by being out of bed, and therefore he has remained there since. The inflammation has not yet entirely gone. General health continues perfectly good.

I have little doubt that another month's rest will complete the cure, and that in about six weeks' time he will be able to return into the country.

CASE 8.—Oliver R—, aged twenty-six, was admitted Sept. 28th, 1860. He has had disease of the knee-joint for fifteen months, and has previously been in the hospital under my care. He left with the joint ankylosed; but, on moving the limb, slight pain and tenderness about the joint returned, for which he was re-admitted on the above date. A Liston splint was applied, with poultice and moxas, and in about a

month the symptoms had entirely subsided. Early in December a gutta-percha splint was moulded to the back of the joint, and he was allowed to walk about with this support, which he was able to do without any pain or inconvenience; and before Christmas he was discharged with a firmly ankylosed and very useful limb.

I will conclude this lecture with some brief notes of a case of excision of the knee-joint, which has been slowly advancing to a perfect cure.

CASE 9.—John C— was admitted into the hospital on the 5th of May, 1860. During the previous winter he had been in the hospital with great tenderness, pain, and swelling in the knee-joint, which gradually subsided under the application of moxas, conjoined with perfect rest, nourishing diet, and cod-liver oil. On his admission it was found that the disease had returned in an increased degree, with loss of appetite, cough, pain in the chest, emaciation, and night-sweats. With nourishing diet and tonics his general health improved, and the joint was excised on the 19th of May. The cartilages were found extensively diseased, with slight secondary disease of the bone. The extremities of the condyles of the femur, and the head of the tibia were removed, but not the patella. The limb was straightened on a splint, and sutures applied.

It was delightful to see this poor boy's countenance on the morning after the operation. He said he was quite free from pain, which the poor child had not been for months. Since this the boy's general health has gradually and steadily improved, but the ankylosis has been very slow; now, however, it is firm, and the wound nearly healed.

In my next clinical lecture I shall have some interesting cases of disease of the ankle and foot to talk about.

## CLINICAL REMARKS ON NEURALGIA.

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### No. II.

NEURALGIA is essentially a disease of middle life. The proclivity to it increases up to the fourth decennial period, when it occurs most frequently; after this time the tendency again diminishes in an inverse ratio with the advance of life. The susceptibility of early life to derangements of the nervous system is known to be very great; but it shows itself mainly in spasm. Tonic and clonic convulsions of a local or general character are the chief manifestations of infantile disease of the nervous system; pain, doubtless, often occurs, but it is commonly indicative of inflammatory action, while those causes which induce neuralgia in the adult give rise to the various forms of spasm in the child. There is an analogy between infancy and old age in many points; so in regard to the relative frequency of neuralgia. We do not, however, find that the aged present the tendency to spasmodic disease which characterizes the young. It would be interesting to dwell upon the physiological peculiarities of the different ages to which these differences and analogies are attributable; it might be attractive, if not very profitable, to speculate upon the teleological considerations involved in these various phenomena; but we must now content ourselves with the elucidation of the facts, rather than pursue a theory.

I cannot, however, avoid pointing out one palpable circumstance connected with the comparative predominance of neuralgic affections in adult life: it is, that they occur when they can be best borne. The physical endurance of the child would be insufficient to meet the exigencies of the severe pain which, in neuralgia, often nearly prostrates the adult in full vigour. On the other hand, the susceptibilities of the aged are manifestly reduced to a much lower ebb than they exhibited earlier in life; hence, though similar causes may operate, their effects are not recognised by the same symptoms as those which declare themselves in the child or in the adult.

If we examine the cases at our disposal, in order to determine their distribution according to the decennial periods of life, we find a steady progression up to the fourth decennium, after which the decline takes place with nearly the same regularity as the previous rise. The first decennial period yields one case at the age of ten in the comparatively rare form of brachial neuralgia; in the second we find seven cases; between the

twenty-first and thirtieth years, both included, the number increases to seventeen; while the highest number occurs from the years thirty-one to forty. The fifth decennial period has seven, the sixth eight cases; in the succeeding one, embracing the years sixty one to seventy, we find the number reduced to three, while the series is concluded as it began by a single female, rejoicing in the age of seventy-three.

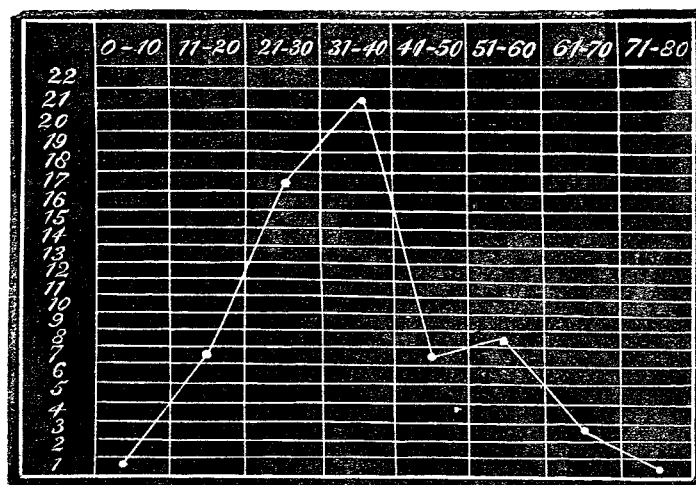


Diagram showing the distribution of cases of Neuralgia in decennial periods. The horizontal numbers represent the latter; the numbers arranged vertically, the former.

The relative frequency of neuralgia between the twenty-first and fortieth years would doubtless have been materially magnified had those numerous cases of painful dyspepsia been included which are ordinarily classed under the term gastrodynia; this, however, has not been done, because I wished to have as definite a field to work upon as possible, and as in so many cases of gastrodynia, unless they are very carefully watched, the diagnosis from gastric ulcer may remain doubtful. I shall, however, not hesitate to give, amongst the illustrative cases which I propose to lay before the reader, some cases of what I have regarded as undoubted gastric neuralgia, where the diagnosis has been confirmed by close observation or by the results of treatment, to which, unfortunately, we are compelled to have recourse at times for the verification or rejection of views adopted at the outset of a case. The list might have been further enlarged by including cases of headache, many of which are undoubtedly neuralgic. They have been omitted for analogous reasons.

If we ask whether the two sexes agree in the mode of distribution at different ages, the reply is that there appears to be no essential variation. The cases which serve as the special basis of these observations would be arranged as follows,—it being premised that the numbers stand in the order of the successive decennial periods of life, and that the upper row represents the females, the lower the males:—

F.	1	4	8	12	5	3	1	1
M.	0	3	9	9	2	5	2	0

The gradations are more regular in females than in males, but the difference is too trifling to merit discussion. We may lay it down, then, as a law applying equally to both sexes, that the period of life by far the most prone to neuralgia is that intervening between the twentieth and fortieth years, the number of cases occurring during this space of time far exceeding all those which belong to earlier and later dates collectively.

(To be continued.)

## ON INCONTINENCE OF URINE,

UNASSOCIATED WITH SURGICAL AFFECTIONS OF THE  
BLADDER AND ADJACENT PARTS.

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DR. UNDERWOOD, in his treatise "On the Diseases of Children," says that incontinence of urine is not a common disease of childhood, unless when it is combined with stone in the bladder; and this statement has been rather too implicitly adopted by subsequent writers.