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On Some Difficulties in the Diagnosis of Chronic Rheumatism, with Illustrative Cases.

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In accordance with paragraph XVII of the Regulations for Graduation in Medicine in the University of Edinburgh - I certify that the accompanying thesis "On some Difficulties in the Diagnosis of Chronic Rheumatism with illustrative cases" has been composed by myself.

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In the routine of a general practice a day seldom passes without a summons to attend a case of what the patient describes as "Rheumatism" - the term used being expressive of the fact that the patient suffers from some pain more or less dull, more or less persistent - usually aggravated by active movement and situated in the neck, back or limbs.

In these circumstances it becomes a matter of considerable importance to discriminate between a great variety of conditions which give rise to pains of such a character, otherwise a case is certain to err and often to occur when a mistake in

Diagnosis

diagnosis brings dispute upon the practitioner – To say nothing of the unsatisfactory results of any treatment which is content to regard all such pains as of a rheumatic character and to consider them amenable to a single scheme of anti-rheumatic regimen and ~~diet~~ drugs.

Consequently, I propose in the first place to enumerate certain various disorders which are in my experience likely to be confounded with genuine rheumatism and then to consider more fully three of them which have especially presented themselves in my practice as cases of doubt or difficulty – and from which I have derived valuable hints for future guidance.

Of course if a practitioner be ignorant enough or careless enough, any pain may be regarded and treated by him as rheumatic – but even assuming a reasonable amount of intelligence and carefulness on his

part

part, – serious errors are apt to be made in diagnosis of these cases and are made even by leaders of the profession. This may be well illustrated by a note of Dr Pye Smith's in Tagg's "Practice of Medicine" (1st Ed. Vol I. p. 549) where a case of deep-seated sarcoma was considered to be of a rheumatic nature and the subsequent appearance of secondary nodules in the skin was taken as an example of rheumatic purpura (purpura rheumatica) proving and supporting the diagnosis in the first instance.

When one is consulted for supposed "rheumatism" the first point to be investigated is the precise situation and distribution of the pain. In determining this, the following classification has seemed to me as a useful one to adopt – viz. –

1. Pain

1. Pains of joints
   A. Acute
      Acute Rheumatism
      Acute Gout
      Pyaemia
      Gonorrhoeal arthritis
      (Rheumatoid arthritis)
   B. Subacute or chronic
      Gonorrhoeal arthritis
      Rheumatoid arthritis
      Chronic Gout
      Chronic Rheumatism
2. Pains of muscles (Myalgia)
      Inflammatory
         Pyrexial
         Anaemic
         Rheumatic
3. Pains along nerve trunks
      Rheumatic neuritis
      Neuralgia
      Locomotor ataxia
      Pain caused by pressure on nerves

4. Pains of bones
   Ostitis or periostitis
   Abscess of bone
   Syphilis
   Rickets
   (Chronic Rheumatism)

5. Other deep seated pains e.g.
   Lumbar, from renal disease.
   Pain in knee, from hip disease.

In examining this table the first point of interest to be noted is that <u>Rheumatism</u> occurs in most of the divisions - thus there are Rheumatic myalgia (Lumbago), Rheumatic neuralgia (Sciatica) and Rheumatic pains in bones, - and in the absence of any adequate pathological definition of Rheumatism I will limit the cases due to it as being those distinctly traceable to exposure to cold or wet, or those occurring in individuals having a rheumatic history or inheritance. I may add that the Swedish attri-

-tude

-tide when investigating any case coming under any of the above classes is to assume Rheumatism as a "dernier ressort" in case no other cause for the pain can be discovered after careful examination - or at least to arrive at a diagnosis of Rheumatism only when there is positive evidence in its favour, carefully avoiding the idea that a pain must needs be of a rheumatic character because of one's inability to make out at the first interview, distinct evidence of any other cause for it.

In the first group and first section of it I have placed certain acute affections of joints, because they stand apart by virtue of their acuteness from all other painful affections that follow - and as my difficulties have been chiefly with the more chronic painful affections I propose to refer only briefly to the former.

former.

It may be worth while however to record a case where an examination of the blood for uric acid after the simple method suggested by Doctor Garrod ("Gout and Rheumatic Gout" III Ed. p. 88) enabled me to clear up an obscure case of joint mischief.

J. H., act 50, a strong labouring man consulted me about an acute affection of the knee joint. There was considerable pain and effusion with slight superficial redness of the skin. No other joints were at all affected. He had never had gout and there was no history of injury nor of gonorrhoea, the attack being attributed to cold. The limitation of the disease raised a doubt in my mind as to whether it was an ordinary rheumatic attack and I therefore bled the patient from the arm 8 ounces — and obtained from the blood serum a fine crop of uric acid crystals.

crystals. This evidence was conclusive, and the patient rapidly improved under colchicum and was shortly afterwards convalescent. The detection in such doubtful cases not only facilitates exact diagnosis but may, as in the case of this man, who declared himself much relieved by the operation, produce an excellent effect on the mind of the patient!

Gonorrhoeal arthritis in either its acute or chronic forms is frequently a trap for the unwary medical man; in fact the only safe way is to keep the disease constantly upon one's mind and to regard with suspicion any case of rheumatism occurring in a young man when its course is at all anomalous and especially if it be limited to a single joint. In this latter case gonorrhoeal arthritis should at once suggest itself and the medical man should

visit

insist if necessary, on kindly examining for any signs of urethral discharge, because of the oblivious course of these cases and the obstinate way in which they resist treatment. If there be present catarrhal conjunctivitis with rheumatism and at the same time tenderness or pressure over the os calcis (plantar fascia) the probability of gonorrhœa being present is increased, and should at once put the medical man on the alert.

That lower gonorrhœa may co-exist with true rheumatism seems quite possible and a case which came under my care five or three years ago appears to support this view.

J. L., cab driver, aged 40 - complained of rheumatism in the right hip and right knee. - He had had gonorrhœa for six weeks. His temperature was slightly raised (evening 100°.2.) Treatment by rest in bed & Sodæ Salicylat. (gr. xx every 4 hours) brought

Soon

down the temperature in two days -
and the pain also completely disap-
-peared in the same time.

My own experience in cases of
true gouty arthritis is that
Sodii Salicylas is absolutely without
effect in the more chronic cases. In
the acute forms it may relieve the
severity of the pain, but it does not
at all modify the tediousness of the
case which lingers on in spite of
it in the usual slow and unsatis-
factory manner.

I may quote another case where I
erred in diagnosis of gouty
arthritis.

H. G. aet 28, a gentleman in business
in London, when at the theatre
one evening sat on the outside seat
of the stalls, opposite a door through
which there came a draught. During
the whole performance. On rising after
a seat of about three hours he felt
the knee and shoulder which had
been most exposed to the draught,
painful

painful and somewhat stiff. He tried by a two miles walk to "walk it off" - but on the contrary the pain became aggravated and after two days' suffering he called me in. From the history he gave me, coupled with my knowledge of a very decided family history of rheumatism, I ascribed his condition to rheumatism from exposure to cold, and treated him accordingly, - expecting him in the course of a few days to be much better! In this I was disappointed; after a week's treatment he was very much "in statu quo". At this time on further investigation, he told me that two months previously he had contracted gonorrhoea but had now quite recovered. I found however on examination that he had a slight but distinct urethral discharge of a gleety character - which at once threw a new light on his case. The very protracted and tedious course his illness took, quite convinced me that

that I had a genuine case of gonorrhoeal arthritis to deal with, - regarding the true nature of which I had at first been mistaken by the history of the case and by my having omitted to enquire into the existence of gonorrhoea or gleet.

The diagnosis of Rheumatoid arthritis depends mainly upon the peculiar deformities with which it is associated, and which are especially to be sought for in the joints of the wrists and fingers. When the disease attacks only a single joint and especially if that be a deep-seated joint like the hip the diagnosis is not so easy. It is necessary to remember that rheumatoid arthritis may occur at almost any age. Dr Garrod (Reynolds' System of Medicine", Vol I. p. 919. Ed 3) says he has seen well marked examples in children of 10 & 12 - and I myself have seen it in patients under

twenty

twenty years. Tuberculosis for the diagnosis, the characteristic deformities are as a rule very marked in these young patients.

There is also an acute joint affection which occurs sometimes with phthisis pulmonalis and which has given rise to discussion upon the point whether rheumatism is not a predisposing cause of phthisis. (Vide. Lancet, July 1883 p. 10 - September 1883 p. 494). I have once seen such a case.

A man aged 38, consulted me for what appeared to be acute rheumatism. Several joints were tender, swollen, and the skin over them red and oedematous. Within about a fortnight this subsided but he developed a cough at the same time, and this was the commencement of a rapid phthisis which proved fatal in about a month. I regret to say that I have no notes of this patient's case; in fact I had

had almost forgotten it until the above references brought it back to my recollection.

Passing next to —
Group II. Pains in Muscles.

Ewald distinguishes four classes which I may term inflammatory, pyrexial, rheumatic and anaemic.

In the true rheumatic group — (limiting the term as I have before mentioned) — there are found a variety of pains in the skeletal muscles of which lumbago and stiff-neck are familiar examples.

By pyrexial myalgia I mean the pains which are felt in a variety of febrile conditions so uniformly that they may be regarded as part of the symptoms of the febrile state. They are specially marked in small pox. So too at the onset of enteric fever. They may be considered muscular pains. (vide. Report of Clinical Society of London, Lancet April 1884.)

Of

Of Inflammatory myalgia I have little to say.

The commonest form of muscular pain is no doubt that due to anaemia or debility. The pains experienced after unwonted exercise, especially well marked in the adductors of the thighs after riding or horseback, are an example of myalgia produced by fatigue (and closely simulate the pains of rheumatic myalgia). And in persons of feeble or anaemic constitution, especially in pale girls or young women, the point of muscular exhaustion is so readily reached, that some muscles are almost continually aching - the slightest exertion causing fatigue.

A friend of mine whose practice includes a large dispensary in the city of London tells me that he often thinks of iron and tonics when he hears the familiar complaint of "pains all over" among his out-patients.

Thus

These are the people who in the higher ranks of life so often condemn themselves to chronic ease upon a sofa; for, finding that muscular effort is painful, they shrink from it as much as possible and the nutrition of the unused muscles fails more and more and the disease lives on in a vicious circle. The muscles of the back in particular are unable to maintain the body in an erect attitude without much discomfort and the patient (generally a woman) takes to her couch a martyr to "Spinal complaint".

It is frequently a very fine point in treatment to decide whether to prescribe Salicylates or Iron in certain of these anaemic patients, — for, as the one hand vague muscular pains frequently precede the onset of acute articular rheumatism, and further Salicylates are contra-indicated in Anaemia yet to withhold them may be to lose an opportunity

opportunity of arresting the attack of articular rheumatism, — and this by increasing the importance of a correct diagnosis, increases its difficulty at the same time.

Moreover, non rheumatic laryngitis may complicate rheumatism, or may occur in patients with a true rheumatic history. Lately there was under my care a young lady who was staying a visit in Kent, — She had suffered from rheumatic fever a few years before. When I first saw her she had a temperature of 100°.4 and complained of pain in various parts of the trunk & limbs. There was old standing disease of aortic and mitral valves. At first judging the case to be one of rheumatism I treated her with Salicylate and light diet, but after a few days with no improvement I changed the treatment and gave a liberal diet of meat and port-salted wine — and the marked improvement

improvement which followed confirmed my belief that I had had to do with a case of simple neuralgia rather than with rheumatism.

In cases of this character all points of the case must be carefully sorted into and weighed. If the pains are distinctly worse at night, it is of value as an indication of the rheumatic condition, although of course by itself this is not enough to justify a diagnosis.

Passing on to Group III.

In cases of pain due to morbid changes in the bones or their sheaths, the determination of the exact seat of pain is of the utmost importance — and a clue is often obtained from the relation of the painful parts to a region of bone supply. If there be any definite distribution found along the course of a bone, then it is worth while to search for the painful

Painful limits of Valleix, and especially for any loss of muscular power, or of numbness or impaired sensation - or finally, for muscular wasting.

As an example of rheumatic neuralgia I name Sciatica, which in some cases is certainly rheumatic, though by no means always so, the diagnosis would be far more simple and more quickly accomplished. When all the painful points are distributed along the course of a single nerve, the disease should hardly be confounded with rheumatism.

The cases of pain from implication of nerves which are most difficult to recognize are those which are bilateral, from some morbid process in or around the vertebrae, such as abscess or caries, new growth or aneurism. Constantly it happens that the first symptom complained of is pain, shooting along arms or legs or both, with pain in some part of the back, and such pains may for a

a long time precede any other and more definite symptoms, such as prominence of any vertebral spines, paralysis, etc.

My friend has drawn my attention to a paper in the St. Bartholomew Hospital (London) Reports for 1883, by Dr. Lewis Jones - on a case of cylindrical malignant disease of vertebrae in a child where there were no symptoms but of pain for a period of six weeks; and there are references given to several similar cases, & in particular to a paper of Charcot on pain in the limbs caused by secondary deposits of cancer in the vertebrae. (Union Medicale, 1866, p. 195)

A case exactly like that described by Charcot was under my care in 1887. A woman, aged 50, suffered from severe pain distributed over back, legs and arms. She had had a breast removed two years previously for "cancer" but there was no recurrence in the scar. Her back-

was

was most carefully examined for any abnormal prominence or sign of angular curvature, but nothing could be found; and there was no other symptom but the pain of which the patient complained much, declaring that she was unable to sit up or move at all without pain. She was querulous and as there was no physical sign of disease to be found, I regarded her as making a mistake about her symptoms which I attributed to neuralgia. However, I learnt afterwards that after leaving the district she passed under the care of another medical man, and had developed symptoms of paralysis of the lower limbs from which she died, — so that I now regard her case as one of Charcot's cases of "spinal paraplegia" due to vertebral cancer, — secondary to the old disease in the breast.

The principal affection of the shoulder

shoulder known as "Deltoid Rheumatism" is said by Dr Bristowe ("Theory and Practice of Medicine" Ed III. p 1082) to be an affection of the circumflex nerve. Certainly it is best easily cured by anti-rheumatic treatment. In a patient aged 26, a sailor, who consulted me for Et. alkalies, potass. iodid., & the like was absolutely without effect on it, - but finally after the hypodermic injection of morphine (p 16) it was much relieved. The treatment was then suspended as the morphine made him feel sick, but the pain gradually left him & there was no further complaint. Whether it returned I am unable to say as I have not seen him since.

As an example of pain ascribed to rheumatism but really due to pressure on nerves I may mention that of a man, aged 60, who died in February 1888. He had been under

under my care for some months.
I first saw him in August 1887 suf-
fering from "rheumatism about the sto-
-mach" as he said. He complained
of pain in the region over or be-
-hind the sternum which sometimes took the
form of stiffness, sometimes of aching
in the muscles in the region of
the shoulder. (I had attended him
some four or five years previously during
a very bad attack of acute rheu-
-matism.) From my previous experi-
-ence of faulty diagnosis in cases of
chronic pain I was unwilling to set
this down to rheumatism. The possi-
-bility of anaemia suggested itself
to me, but I could detect no
direct symptoms of it. After October
1887 I lost sight of the man for
some time — but he came to me
again in December with hoarseness
and a superficially sounding cough,
and the pain not a bit better.
He told me that in the meantime
he had been going to a Hospital

hospital

hospital for his hoarseness, where he was told he was suffering from "rheumatism and chronic inflammation of the windpipe." — On examining his throat with the laryngoscope I found marked paralysis of the left vocal chord — Rubbles from pressure on the left recurrent laryngeal nerve, - and on auscultating my examination of his chest I detected well-marked physical signs of aneurism of the transverse aorta from which he died some weeks after.

The pain of <u>Locomotor Ataxia</u> may also be regarded as rheumatic, at any rate by the patient: I well remember when a student seeing an old gentleman who traced his complaint of "chronic rheumatism" to his having sat down to dine in wet clothes in India after having been out shooting. He was shortly afterwards taken ill & as he said, his medical man by treating him unsuccessfully for

with Colchicum, had caused him to have rheumatism ever since. I have no doubt that his complaint was alcoholic, and I can remember the twinges of pain, (probably lightning pains) which used to beset him, and the awkwardness of his gait.

Pain referred by patients to the shafts of bones may be due to Rheumatism or (apart from periostitis) to Syphilis. The latter is a common cause and must never be lost sight of. If the pain is localized strictly to a single bone then chronic ostitis may be thought of - and if they are confined to part of a bone, they may be caused by abscess of bone - or localized periostitis - the latter being usually diagnosed by the presence of a lump or node at the part affected. In chronic ostitis the increased thickness of the bone may be felt - and when acute periostitis in a child

child is mistaken for acute rheumatism, careful examination reveals not only that the pain is not articular, but also at an early period fluctuation may be felt, so that the constant attention should prevent possibility of suppuration.

As examples of disease of bone which at first presented symptoms very similar to those of rheumatism may note two cases which have quite recently occurred in my practice.

Mrs J.S. a lady aged 62, assisted in nursing her husband through a protracted illness of two or three years, helping to lift or move him in bed, etc. Her efforts caused eventually much aching in the lumbar muscles; movement aggravating the pain. She in fact presented the usual symptoms of lumbago. Nothing abnormal was to be

be detected on inspection or palpation of the back. Rest, rubbing, embrocation applications, galvanism, etc. were all in turn tried, &c. &c. Neither did the various internal remedies usually prescribed for muscular rheumatism, without beneficial result.

After going on in this unsatisfactory way for some months — She one day on making some effort "felt something give" and next day found a swelling in the groin. This was seen by a well known London Surgeon who diagnosed umbilical hernia and ordered a truss. In spite of this the swelling increased and the pain in the back became worse. Still nothing abnormal could be detected in the lumbar region. Eventually I thought I could make out deep fluctuation in the groin and introduced an exploring needle through which came pus. Thereupon I punctured it again with a large aspirator trocher and

drew

drew off more than a pint of pus, in which were small pieces of carious bone; - exclusively showing that the intractable "Rheumatism" was nothing more or less than disease of the lumbar vertebrae.

Again, a young lady, aged 21, consulted me for an aching and stiffness about her shoulder and upper part of the arm, which increased with her playing the violin and rendered movement (especially that which brought the deltoid into action) productive of discomfort or actual pain. There was no local tenderness and no elevation of temperature. She had had several attacks of muscular Rheumatism during the last two or three years in different parts of the body and inherited a tendency to the Rheumatism. In the course of a few weeks the pain began to get worse at night, often increasing with her sleep, but so often

other Symptoms developed and her general health was excellent. About this time, one evening when at a dance she unfortunately when warm sat in a draughty conservatory. During the following night she had a severe attack of shivering and next morning I found her with a temperature of 102°6 and complaining of great pain and tenderness over the upper part of the humerus. This rapidly increased in intensity — till the Symptoms became so urgent, that I cut down on, and trephined the bone with the result of evacuating about two drachms of pus. After obtaining this relief she made a rapid and perfect recovery — the former "rheumatic" pain quite disappearing.

Within three had been some two forms of attack from the first in this case — though the Symptoms exactly simulated those of rheumatism, & though there was an absence of local tenderness and swelling. The child

which

which she caught. Suddenly lit up the smouldering flame and developed as condition of acute inflammation.

I have known Rickets often mis-taken for Rheumatism.

Not long ago, a child aged 20 months, was brought to me who had considerable pain, tenderness and swelling of some of her joints. She had been treated for weeks by a neighbouring practitioner for rheumatism without benefit. I diagnosed Rickets, and under careful treatment therefor, her pain and joint trouble rapidly left her. The case was rendered more difficult by the strong family history of rheumatism.

Other chronic deep-seated pain which simulate Rheumatism are the pain of early Hip joint disease, especially of the pain at the knee so dwelt on by Mr Hilton ("Lectures on

on Rest and Pain") be present – In that hip disease may be compounded with rheumatism and vice versa.
The greatest care is required in the examination of such cases as the most experienced surgeon may err in diagnosis.
A Patient of mine, a child aged three years, a few days after being allowed by her nurse to sit on damp grass developed a limp and pain in the hip – at times keeping the thigh semiflexed, drawing up the foot from the ground and crying when attempts to manipulate or straighten the limb were made. I considered her affection rheumatism and treated her accordingly. As she did not seem much better after a few days' treatment, she was taken to an eminent London Surgeon who said she had hip disease and ordered her to bed with extension apparatus &c. The parents however left from four or five days elapse

before

before doing anything, and by that time all symptoms had disappeared! The pains then are not at all likely to have arisen from rheumatism of the hip-joint, but in all probability were simply rheumatic.

Conversely — as an example of a case of hip disease which had been diagnosed as rheumatism — I may refer to one mentioned by Mr. Hilton ("Lectures on Rest and Pain", p. 316 Ed II.) where a young gentleman was advised by a well known Surgeon in London to take abundance of exercise, and to go to a Hydropathic Establishment to get cured of his rheumatism. The case however very shortly turned out to be plainly one of real hip disease, from which he soon afterwards died.

Rheumatic Sprains may be simulated not only by Spinal disease (as in the case of Mrs. J.S. Hare already

already quoted) but also by stone in the kidney or perinephritic abscess. The following is a case in point:-

A volunteer, aged 36, taken ill in camp at the Easter manoeuvres, lay one night on damp straw. Next morning he complained of stiffness and pain in the back and presented all the symptoms of lumbago. He was in consequence obliged to return home. He kept his bed for two or three days and had the usual local and internal remedies for lumbago. His urine was properly examined for both chemical and microscopic examination. His pain increased, remaining confined to the muscles in the lumbar region, — when quiet at rest it was always easier. Firm pressure did not aggravate it. About a week after he was taken ill, he was seized with a rigor, hallucinations followed, with shooting pain down towards the bladder. Twelve hours afterwards a calculus was voided per

per urethram, & his pain ceased. Next day he said his back felt "quite right again."

In this brief essay, it has been my endeavour as far as possible to limit my cases falling under my personal notice, referring to the publications of others only where it seemed necessary to render more complete my proposition that in the diagnosis of cases of chronic ~~rheumatism~~ pain, the care and ingenuity of the medical man are frequently taxed to the utmost.

Chronic rheumatism is a complaint which one is tempted to treat with scant attention, owing to its common occurrence and to the fact that its course is for the most part devoid of exciting incident — but, as the cases I have quoted will show, — the medical man who allows his interest to flag and neglects

neglect to avail himself of any
benefit clue to the nature of each
individual case, is almost sure
to fall into one of the many errors
of diagnosis which surround the
subject on every side.

David L. Maynard