James Dickson

A far away
A Thesis

on

Rheumatism.

Rheumatism, derived from the Greek ῥέματος, to flow or the Roman ēvum, is a disease which is very common in this country. It is most prevalent among the poorer classes, as gout, to which it is closely allied, though not in its pathology, is among the wealthy. The name Rheumatism has been applied indiscriminately to various kinds of pains in joints, and has thus caused a good deal of confusion, but we will take the two species into which it is divided, and which are generally distinguished by the names Acute and Chronic Rheumatism.

Acute Rheumatism is an inflammation of the fibrous tissues. This tissue is widely distributed throughout the body. It forms aponeuroses which bind the muscles together, ligaments which hold the joints...
together, and also tendons which unite the muscles to bone. This disease may attack any of the above structures, but its special tendency is to attack the ligaments and tendons lying round the larger joints. There is in this disease what has been called the rheumatic diathesis, by which, in many cases, one can judge by the constitution that the person will have rheumatism. Some do not admit this at all, contending that what is called the rheumatic diathesis is just the disease, and that the symptoms manifested are just the symptoms of the disease. According to the definition of diathesis it is that out of which rheumatism is evolved; and Dr. Todd has given us the characteristics of it—a febrile state of system, quickness of circulation, occasional exacerbations excited by heat of skin, and perspirations more or less profuse, the perspirations having a sour odour—a pruritus to lithic deposits more or less coloured pains in the joints, muscles and nerves of the limbs—a pallor of the skin and cachectic appearance or greenish or yellowish hue tinges the surface, and the red particles of the blood are deficient, while at the same time the patient is thin, loses his appetite, and is indisposed for business or amusement.
There is no doubt that all these enumerated above are found in Rheumatic individuals, but you may have evidence of all these and not terminate in an acute attack of Rheumatism. There is one condition of a person where you may be sure to expect Rheumatism, before the symptoms have particularly manifested themselves, namely, in one who has had Chorea and pain in joints, with other of the characteristics mentioned before.

The following are the most marked symptoms of Acute Rheumatism. It generally commences with chilliness and wandering pains, these however soon become localized, in some cases in a few hours in other cases in a few days. Sometimes only one joint is attached, at other times several; the pain in many cases recurring to a joint which it had for sometime left. The head, trunk, and limbs are more rarely affected than many of the other parts of the body, the joints which suffer most being those of the knee, ankle, wrist and shoulder. This pain in the affected joint is acute, lancinating, paroxysmal, gradually increases, and is especially heightened by pressure or by motion, so that the patient can scarcely bear the weight of the clothes.
on him, and is compelled, even though suffering the most excruciating agony, to be still, otherwise he but adds to this suffering. Along with this there is swelling, so that the parts around the joints become tense and shining and as the chilliness of the early stage has now been succeeded by heat, they not only present a red appearance, but also feel very hot to the touch. There may however be swelling with very little redness, occasionally there is a flush of redness, or redness in patches with only slight swelling, but generally the swelling and redness have a relation to each other. Rheumatic inflammation does not generally go on to suppuration, and this is remarkable fact, shewing that its character differs materially from that of simple inflammation, as it is not met with in ordinary cases.

The constitutional symptoms are, shivering, followed by hot skin with chills, perspiration, which almost always presents acid appearances to test paper, and is often of a very disagreeable odour. The pulse is full and bounding, giving 90, 100 and even 110 per minute in frequency, and generally having a relation to the heat of the skin.
the greater the intensity of the latter, the more in proportion is the former quickened. The tongue is furred, there is great thirst, and also loss of appetite. The bowels are constipated, the stools when passed are generally dark and offensive, and the urine is scanty, high coloured, and sometimes loaded with lithates. Emaciation is considerable, delirium not unfrequent but rare so long as the heart is unaffected.

At the height of the fever, the patient lies motionless and helpless, afraid to move the affected part on account of the excruciating pain which is experienced on the slightest motion. At night the pain becomes more severe, and continues so till morning, shifting from one joint to another. As soon as the fever begins to subside, there is a gradual or sudden cessation of all the symptoms, first the pain and then the fever, or they may both subside at once. With the subsiding of the pain the swelling also wise disappears, and this may go on very rapidly so that parts recently tense may have become soft, leaving only a slight oedema. The tongue gets moist and clear, the pulse gets slower, and the urine deposits a sediment resembling brick.
dust. This disease terminates in this manner in recovery, or in permanent organic disease, chiefly of the heart, more rarely in purulent affection, sometimes in typhoid symptoms, occasionally in sloughings of the back and inflammation of the kidneys. The termination in recovery we may expect in a first attack, but as the attacks become frequent, disorganisation likewise results, and then the case puts on an unfavourable aspect. Acute Rheumatism is marked by a peculiar character to which we have before alluded, namely a tendency to metastasis, or a changing from one part to another. You may see one joint at first affected, and then left, whilst another is attacked, to be in its turn abandoned, and this often without great permanent injury to these joints. It may go on this way through several joints, and then go back to the first, but it is when it leaves the external parts and goes to the internal, which is a common occurrence, that it is most to be feared. Of the internal organs, the heart and its membranes are the most liable to be affected, causing Pericarditis, Endocarditis, or both.
As therefore Acute Rheumatism is very often apt to be complicated with these, especially in those whom it attacks before the age of puberty, a skilful physician will always be watching the action of the heart from the commencement of the disease to see if this complication is to follow. He will look for the general signs of Pericarditis, as well as the sounds which are so often heard with it, namely the to and fro sound, and the bellows sound. For if once he ascertains that the two diseases exist, it will modify his treatment, especially if the symptoms of Pericarditis, such as pain over the cardiac region shooting up to the left shoulder, spasmodic cough, palpitation of the heart, and irregular pulse be very strongly marked.

From the different tissues which are attacked by Rheumatism in its Chronic forms, it has received different names, as Muscular Rheumatism when the muscles are affected — Neuropathic when the nerves — Synovial when the synovial mem-
brane etc.

Muscular Rheumatism, that is Rheumatism affecting the muscles occurs in several parts
of the body. When the aponeurosis of the back and loins is seized by Rheumatism, it is called Lumbago. While the person seized with Lumbago remains at rest, she is only troubled with uneasiness, but let him move in the slightest degree, and then there arises a sharp pain, and if in a forgetful moment he calls the muscles of the loins into play the torture which follows, quickly reminds him of his error. When attacked, the patient often has recourse to the recumbent position, or if you see him moving about, it is with his body much bent forwards, as he cannot without great pain maintain the erect position. Thus a man whose ordinary gait may have been one of an erect posture, is seen walking in a recumbent manner, supporting himself, may be by a staff.

Another frequent seat of this disease is in the intercostal muscles, and this is characterized by violent pain on inspiration, which pain however can be got rid of, by fixing the ribs and breathing with the abdominal muscles. These different forms of muscular Rheumatism are often caused by exposure to a draught or to cold and moisture.
Neuralgic rheumatism is certain painful affections following the course of nerves, and as in the muscular, so in the neuralgic, pressure or movement increases the pain. Sciatica is often caused by rheumatism, and Dr. Fuller has given as the best treatment for rheumatic sciatica, external applications of sulphur.

Periosteal rheumatism it is said, is most generally met with in the cachectic and scrofulous affecting the bones nearest the surface, as the sternum, tibia, and cranium. Contrary to what is found in other cases of rheumatism, there is neither red-ness nor swelling; though we have the tenderness to the touch, and the increasing pains at night, very well marked. The pain is deep seated and referred to the bone, and along with this pain we have fever, accelerated pulse, flourid tongue, and disordered excretions. These periosteal are apt to be confounded with syphilitic pains, as they are very similar, and often occur in persons whose appearance we would consider to indicate the latter, but they may be distinguished by their history, and seat of the pains. It is generally rheumatic pains when confined to a single
limb, or a confined portion of one or more limbs, for the pyrophilic are wandering and occur at a greater number of places. With the latter too, the swellings of the periosteum are more numerous and defined, while there are other signs of pyrophilia especially nodes, arising from effusion between the periosteum and bone.

Genoskeletal rheumatism has its seat in the capsules and synovial membranes of the joints and generally begins after the discharge has begun to diminish.

The symptoms are similar to those of acute rheumatism, but the integument is seldom red. The pain which would naturally arise from the limbs being extended, is prevented by keeping them in a bent position, and moving them as little as possible. The urine is loaded with lithates, and besides excretion by profuse and offensive sweats, there is also slight running from the urethra.

Synovial rheumatism from its similarity to gout, has often been called rheumatic gout. It occurs oftentimes in the knee joint, causing a degree of swelling by the distention of the synovial membrane.
For here we have first pain and external redness, and then in a few days, effusion within the capsule of the joint. This effusion consists of a quantity of synovial fluid, caused by the excited condition of the secreting surface. In this kind the fever is less intense than in the acute, or if it rise to a great height, quickly subsides when the joints begin to swell. The other symptoms too are less marked, in short, their whole character is more closely allied to gout than rheumatism. It has also been noticed that it does not so often affect the heart as in the acute, whereas by reason of metastasis and this to the internal parts, the heart is often attacked, and hence more danger to the system. The swelling is of a peculiar character, and readily attracts the eye, by being in those parts where there is the least resistance. It occurs on each side of the patella, across the lower part of the thigh, and sometimes into the popliteal space. In synovial rheumatism, the effusion fluctuates and is bound down by the ligaments of the joint. In fibrous rheumatism, the effusion does not fluctuate, and is external to the capsular ligament, being in the cellular tissue.
The synovial rheumatism remains longer than the fibrous, attacks a number of joints, and by remaining fixed in some of these, causes disorganization. When a person has had several attacks of this, the recovery is not so complete, as the joints still continue to have a disfigured aspect, and the disease becomes of a chronic nature. It has been stated that the appearance presented by post-mortem examinations of such joints is only an increased quantity of synovia.

There are some cases which are not absolutely acute nor absolutely chronic, and to these the name sub-acute has been applied. In this we have a more moderate fever than in the acute, joints hot and painful, and other symptoms of the acute in a milder form. In short we may just consider it as acute rheumatism, and treat it accordingly.

The pathology of this disease is not very clear, and hence rheumatism still continues to be one of the obscurest diseases. Though somewhat resembling gout, there are wanting the deposits which give a grey to the latter disease, you would think it is a too highly acidulated condition, from the presence of
acid in the two most marked secretions of this disease, namely, in the urine and the sweat. Some suppose this to be caused by lactic acid, and the experiments made by Dr. Richardson seem to lead to such an inference. But in order to decide with certainty, we would require a much larger series of experiments. But this disease is not one of a dangerous character if properly treated, unless in so far as it is complicated by heart affection, and hence not much opportunity for examining the body after death, as in many other diseases.

Causes. This disease has been popularly attributed to cold and moisture, and in a certain sense it is caused by these—hence the reason why it is more common among the poorer classes and such as are exposed in a great degree to the weather, than among the wealthy. Yet it is a very remarkable fact that if it be cold, there are no statistics to show that there are a great many more cases in cold weather or in cold places. That the reasons above have however some effect, we gather from the number of cases admitted into the Royal Infirmary of numbers admitted in the first quarter 158, 2nd quarter 137, 3rd 129, 4th 111.
Registered 286 - 269 - 262 - 292.

The fact by the invaliding of soldiers that in England there are 53 out of 1000. Cape of Good Hope 57 out of 1000. Malta 34%. So that it would appear that it is apparently more common at the Cape of Good Hope than in England although the former is the warmer. The other statistics go to show that warmer climates have fewer cases.

Age. With regard to this we may say there is no acute Rheumatism in the infantile period of life although Dr. Watson says he has seen it in an infant three years old. Pericarditis which is often a species of this is often found in infants. From fifteen to thirty however it is very often found, but past that age there is not so much chance. The most dangerous forms of the disease are developed in young persons before the age of twenty one. Generally speaking you may say, that if a person has lived till forty or forty five that he won't have it, if he has not had it before.

From one set of statistics we find that out of 197 cases there was only one above the age of 55.

Sex. According to Dr. Lyon the sexes were affected in the proportion of ten males to seven.
females and Hungarians gives nearly the same proportion. It is not easy to say what is the real proportion, but we may affirm that the male sex has rather the preponderance. These remarks refer chiefly to Acute Rheumatism, for we find the Chronic species existing in old men much beyond the age specified above.

There is one disease with which Rheumatism is very apt to be confounded, and on account of their similarity, especially in advanced Gout, mistakes have often occurred. But there are several points of difference, such as the smaller joints being attacked by Gout, while the larger are attacked by Rheumatism, and the attack of the former lasting generally for a shorter time.

The pain in Gout is generally in one limb and one joint of one limb, and if it stays in one joint in one limb you are more sure that it is Gouty and not Rheumatic. There is greater swelling and redness of the parts in Gout than in Rheumatism, but less fever and sweating. There are deposits of chalk stones in Gout, but not in Rheumatism, while the manner of living often aids you greatly in your diagnosis.
The pains and swellings of scurvy have also often been mistaken for rheumatism as was the case in the epidemic which occurred in this country in 1847, when many patients were sent in from the country to the Royal Infirmary here as cases of rheumatism, whilst they were in reality suffering from afterwards appeared. The diagnosis of this is not so difficult nor would be so apt to be confounded with rheumatism by any one who knows that the pains and swellings of scurvy are not in the joints, nor capsules of the joints, but in the flesh of the limbs. This causes restricted movement in the limbs just the same as rheumatism.

Treatment. The old treatment was by bleeding, but this has been discarded by all enlightened modern physicians. Some physicians now have never bled in rheumatism, whereas many years ago it was the great remedy to which nearly every physician had recourse. Yet even in the bleeding age some physicians had begun to think bleeding did not do; for even Cullen was a cautious bleeder and Herberden a very cautious bleeder in this disease. The late Dr. Alison thought that bleeding tended to favour metastasis, but this point is not sufficiently
proved. Dr. Watson advocates blood letting, but says that for his own part he seldom performs phlebotomy. He gives as his reasons for this making his practice different from his teaching, the late stage at which he sees the patients, and their desiccated state. But even when he recommends the cautions against expecting immediate cures from its use, its advantage only being the relief of pain and preparing the patient for other medicines. The blood when drawn has always a buffy appearance.

Thus we see that even in the bleeding age many of the most noted physicians did not bleed, or if they did, as only to a small extent. But others who bled to a large amount, twenty to thirty ounces every day, considered that those who bled to only ten or twelve ounces, did not get the good they expected, from the small quantity taken. And seeing that this practice continued long and that we have the repeated testimony that after a large quantity of blood had been taken away immediate relief was experienced, and ultimately, a complete cure, it becomes us to inquire a little further into it. That it did give relief in many cases we cannot deny, but that it was good treatment the mortality
of patients, or the time taken to recover, contradicts. In robust patients and those who could bear a quantity of blood being taken away its bad effects were not so observable but in the greater number of cases met with in hospitals and even in general practice in large towns, its effect was so bad that they had to stop adopting such a heroic remedy. From all we can gather on the subject and from the testimony of physicians of the present day, bloodletting has the effect of weakening the patient without affording a cure to this malady. Therefore I say that bleeding should not be had recourse to. Conjoined with bloodletting vomiting and purging were practiced, and doses of Antimony and Calomel were therefore freely administered. But I have a greater reluctance to employ this kind of treatment than even bloodletting, and if any of these I would prefer the latter to the former. For the sucking of the joints by such medicines, and the movement necessarily engendered by rising to stool &c. are so prejudicial to patient as well as painful, that it will be far better not to purge. Cases have occurred where one has walked off gout but not so with Rheumatism for the more motion made seems
the more is the pain increased.

Some use Mercury for this disease, but it almost invariably makes the Rheumatic Fever worse, and therefore in my own case would never use it. For a distinguished physician of this city has told me that he has seen so many bad effects from the administration of Mercury, that he never employs it at all—that he has seen some deaths in the acute state and only when Mercury was used. This medicine used to be given after the patient had been purged on account of fulness, or congestion of the intestinal, or hepatic vessels, still remaining or it was combined with them, but Cullen long ago had doubted its efficacy, if he did not consider it hurtful.

Diaphoretics have for long been recommended as by encouraging sweating they help to eliminate the poison by the skin. There is often extremely profuse sweating without administration of anything, and it is a fact worthy to be remarked, that the sweat in Rheumatism does not deteriorate strength so much as other sweats. We have hence the common practice of large doses of Opium administered every three or four hours till there is relief of pain, stopping it short of the Paralytic point, but keeping it always up to the
anodyne pitch. A patient in rheumatic fever will be able to take a greater quantity before it poisons him than if he were well. If you use Dover's powder the Speracanampa sometimes interferes so that it is better to give it pure. Opium has however of late been greatly superseded by alkalis with which the blood is flooded, and therefore only a small quantity of Opium necessary. Potash is the Alkali, and has been given in the form of the Nitrate, Bicarbonate or Acetate. The last I consider the most preferable and would give it in the proportion of half an ounce or one ounce, to one or two quarts of water, and mix it with syrup or what the patient likes, to take away its bitter taste and make it more pleasant. By testing the urine you can always ascertain when enough has been given or when it becomes decidedly alkaline then it should be given up. This is best accomplished by using the Acetate of Potash, as the Bicarbonate does not show alkaline properties like the former.

Besides the testimony of those who have seen the efficiency of Acetate of Potash, we have that of Dr. Golding Bird who was himself subject to this disease, and therefore speaks from relief experienced.
in his own case. I would not willingly use language which was not completely compatible with experience, but I do not still hesitate to declare that I have never seen the disease in question yield with so much facility to any other remedy. In the severest cases which have been admitted into the hospital under my care, I have seen the cure to be more rapid and the immediate relief to the patient more marked by the use of the acetate of potassa in quantities of half an oozcie, administered largely diluted, in divided doses, in twenty-four hours, than by any other treatment. In three days I have repeatedly found the requisite pain of the joint nearly absent, the patient comfortable, and able to bear with greater ease the helpless state in which the still swollen joint places him. In case there was any ill effect followed the use of the remedy, and whilst the cure has been far more expedient, the ill effects of colchicines and mercury have been avoided. The pain remarkably and suddenly lessens as soon as the urine becomes alkaline and rises in specific gravity. Can indeed unhappily attest my experience in my own person on the marked alleviation and rapid cessation of the pains of Rheumatic fever from the use of the drug.
and gratefully compare its influence with the
terrible and painful results of mercurial treatment
in a former attack. It is difficult to decide on the
comparative immunity from pericarditis in acute
rheumatism under particular modes of treatment,
but the impression on my mind is very deep, that the
tendency to this fearful complication is very much
lessened as soon as the urine is rendered alkaline by
the Acetate.

Colchicinum. This drug action upon rheumatism
is not so beneficial as was considered by some, and
does not produce the brilliant effects that were an-
ticipated. A great objection to it is that if given in
large doses it is done so at the expense of the constitution
for it deranges the bowels. It sometimes, however, re-
solves the pain so that one might try it only not giving
it to such an extent as to produce the physiological
effects. Of the same class of medicines are Aconite,
Quinine, and Actaea Racemosa.

Aconite is a sedative and in some cases does good,
but it has the objection that you must push it up
to the physiological point. It was greatly used by
Dr. Fleming whose Tincture may be prescribed in
doses varying from one to three drops, but if given in
Effect should be well watched. But Atropa Belladonna, which has been recommended by American physicians, may be more freely used than any of the other two. It tends to subdue the action of the heart, and sickness and causes vomiting the same as Belladonna, and may be administered from ten to twenty drops three or four times a day.

Besides the administration of such medicines as are before recommended, it will be well to cause the patient to avail himself of warm and vapour baths as these, especially the latter, are always very valuable. Not that they always affect a cure, but because if they do not do this, they at least always relieve the patient.

External remedies are often of great service in relieving the pain, such as anointing the joints with chloroform and rolling them round about with cotton wool or oiled silk. Wadding is the best. A lotion which I would use is the following.

Recipe,

Lodine Carbonatica 3 VI
Liquoris opiis Sedativae 3 VI
Aguae Hortis 3 IX

Pice, gent Lotic.
In treatment of Chronic Rheumatism attention must be paid to the diet of the person, as disorder of the digestive organs is apt to excite and increase it. Where there is emaciation, as is often the case in old people, cod-liver oil will be found to be beneficial. Care must also be taken to keep the body always as warm as possible, and avoid exposure to cold and dampness, and the better way to secure this flannels should be used and other warm clothing.

Dr. Fuller and others are opposed to the use of Pinnace, but I have been told on good authority that it is of great use, as it has been seen to be beneficial when administered in doses of forty grains or a day in extreme cases, but more usually half this quantity will do. Dr. Beagle senior recommends arsenic, and some French physicians arsenical baths, and these I would be apt to try in certain cases should they come under my care.

Sodite of potassium is very valuable in Chronic Rheumatism, and Dr. Barton says it most surely acts beneficially when that fibrous part the periosteum is principally affected. Its influence upon the general health is one of its most valuable properties, and as was before stated, this must be
carefully attended to. To accomplish this same purpose Arseniate of soda may be used by itself or gelatinous matter, or mixed with subcarbonate of potash, when used in subacute rheumatism. As local applications shampooing, acupuncture, galvanic shocks passed through the joints, and cold baths have all been tried — with regard to blisters I would be very loathe to apply them as I think they only torture the patient without doing much good.

Mineral waters are of much service as the waters of Bath, and Buxton in England. The latter has of late been rising in favour, and the Buxtonians say that it is nitrogen that produces the good; others water on the continent which may be recommended are Baden—Baden, Wiesbaden, Carlstadt, Bicky.

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