LECTURES
ON THE
DISEASES OF CHILDREN,

DELIVERED IN THE
Chatham Street School of Medicine, Manchester.

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LECTURE XIV.—(Continued.)

Rheumatism: fever, and local affections. Different relations between local affections and fever of the kind. Febrile forms of rheumatism; the acutest, with general articular rheumatism—rare in infancy; a more moderate form more frequent, occurring even under the third year; the mildest form, which is the most frequently met with in young children. Local rheumatism considered in connexion with fever; the commencement always pain; its seat and further chances or passages. Rheumatic headache, along with fever. Rheumatism of the ear; pleurodynia difficult but important to distinguish from the beginning of pleurisy; frequent in young children, in connexion with fever. Lumbago. Rheumatism of the heart; pericarditis and endocarditis rare in the tender age. Dr. West's interesting table. Diagnostic inquiries and directions. Articular rheumatism, with fever, in various forms. Rheumatism of the stomach, intestines, and peritoneum.

GENTLEMEN,—In the last lecture I concluded my observations on two general features of fever, which I have called the hypersthenic and the asthenic, with some remarks on the general acute bilious character of fever. You will have noticed, what I have expressed in my eleventh lecture, that my purpose at present is not to establish *species* of fever, but to endeavour to give you some leading views in this difficult part of children's practice.

"Hypersthenic and asthenic," as you will have observed, denote for us two opposite general features of fever, considered *objectively*.

I concluded with observing that these features, or stages, pure and uncomplicated, are very rare in children. I said, if infants do not recover from high fever in very few days, they either die before the fever could go on into various special ways, or the fever takes one of the more or less protracted special forms. As you will see, what I have described as the "hypersthenic stage," can be connected with a variety of special forms of fever from their commencement. Now I will speak of these.

The distinguished Dr. Dietl, of Vienna, says in his work:—"There is a *febrile rheumatism*, but no *rheumatic fever*." I have not to enter into discussion upon this matter. My present task is a purely practical one. Fever appears in a great many forms and connections with various local affections; and I think

it to be useful to the young practitioner, in particular with regard to children, to draw his attention to, and make him familiar with, as many real features of fever as possible.

With regard to the rest. Is rheumatism merely a local affection? My answer is in the negative. The specific brick-coloured deposit of the urine itself is sufficient to prove a certain chemical alteration of the blood.

If we consider the disease in question clinically and without prejudice, we find there are cases where local rheumatism constitutes the primary and principal disease, from beginning to end; and the fever is of secondary importance. There are, however, other sets of cases, in which local rheumatism and fever nearly balance each other. And, finally, we meet with a kind, in which the general functional disorders constituting fever, are the first, the most salient, and important; whilst the local rheumatism—of muscles or nerves—is but an erratic complaint, *locally* unseizable and unmanageable; and the more so in the speechless child.

There is no disease in which it is more desirable than in this to recollect, as I recommended in other instances, all the different subjective symptoms (verbal complaints) we have got from adult patients. We see them sometimes, in the course of rheumatic fever, moan and suffer by uneasiness, sensations in the belly, head, or elsewhere, distressing to them and the attendants, which, in spite of their intelligence, they scarcely can explain. The same happens with the child; but the obscurity and anxiety are greater. I believe, therefore, it is desirable to investigate the matter practically, and elucidate, as far as we can, with children. My conviction is, that, just like as in scarlet fever or some other, there is, besides the peculiarity of the connected local affections, also a proper general character of the rheumatic fever; and I might even say the latter represents the very chameleon of fevers, just as local rheumatism represents that of local affections—both changeable every instant: a severe test for the skill of the practitioner.

Let us, then, consider rheumatism, first, in its—

Febrile forms.—The acutest is the most characteristic of all, generally known by the name of *acute articular rheumatism*. It is this:—We observe a primary paroxysm setting in suddenly, in most cases by rigor, with subsequent heat; and at the same time with the rigor, ~~of~~ during the heat, or shortly before the rigor, pain appears in both ankles or knees, less often in other joints; but more or less rapidly it extends thence over the rest; when, besides the high and almost burning heat, and the most acute pain, the affected joints commence to swell with the increase of the fever. But then, in the course of a day or two, profuse sweat will appear; and this forms a decisive moment—good or bad. If the local affections under that sweat do not lessen, you have commonly a severe and pertinacious disease to contend with, which, by-and-by becoming remittent, and presenting a continuous alternation between exacerbations, dry heat, and alleviating perspirations, or unalleviating profuse sweat; may last for weeks or

months; and after the fever has abated, the local consequences, swelling and contraction, will continue for a weary length of time. It is in the acute articular rheumatism that a peculiar disposition to affections of the heart has been noticed, which sometimes come on insidiously. The urine, at first deep-coloured and crude, forms, after a day or more after the commencement of fever, its well-known brick-coloured deposit.

The most commonly-affected joints in the *acutest* form are,—the ankles, knees, wrists, and elbows.

I want not to insist further in the description of this form; it is characteristic and well known enough; and if it happens to attack a child, it will be as easily recognizable as in adults. I am happy to say, however, it is one of the rarest occurrences in the tender age. I have already alluded to the frequency of rheumatism in Hungary; still I recollect that we had only two cases of the form in question in children two or three years old, in the hospital, and not one nursing; nor have I seen it in my private practice, *i. e.*, in the wealthier classes of society, in children less than six or seven years old. The two cases alluded to, in which fearful contractions and swelling of several joints were the permanent consequences, belonged to the lowest class of people, whose children are exposed to every kind of weather and all sorts of neglect. It would appear as if this form required for its ground a higher degree of animalisation of the blood than that which is proper to young children.

There are, however, lower degrees of the same form, in which the same relation between fever and local affection, as mentioned, does exist, and the same kind of issue; but instead of all the principal joints, only one or two are affected, and the fever is proportionally milder. Instead of the just-mentioned frequency of the localisation in the ankles, here most commonly, one or both knees of the child are suffering from inflammatory exudation and swelling. Of this description I have met with numerous cases from the third year upwards, and not so very seldom even below that age.

A characteristic feature common to both forms, or degrees of the same form, just described, consists in the localisation of rheumatism in the ligaments, synovial membranes, and perichondrium of the large joints of both sets of extremities, with the participation of the surrounding cellular texture. If the fever runs high, from the moment of fixed pain, (increasing when we bend or move the respective articulations of the child,) the swelling will commonly appear between twelve and twenty-four hours, and increase more or less rapidly. The exuded liquid is commonly serous, but, according to the degree of inflammation joining the local rheumatism, more or less of plastic lymph may be mixed with it. Thus chronic swelling, (in not rare instances incurable,) ensues, and not less annoying permanent contraction; sometimes structural degenerations of a more destructive and dangerous kind take place. Suppurative inflammation rarely springs out of rheumatism; I have seen a few cases, always in one knee only.

Now, I feel convinced—at least my experience tells me

so—that acute articular rheumatism, in both described degrees, destroys more severely and irreparably, the textures of joints in children than in grown-up people. This I abstract from an extensive experience I had with contracted joints since 1841, by having applied tenotomy to their treatment upon a large scale, in grown-up people as well as in children. Numerous parties applied to me for that purpose from all parts of the country. There was at that time almost a general rush of the public towards that operation. I exactly remember I have seen very few of them younger than six years; more than two-thirds of them were between six and thirteen, and about one-third only were adults; and, amongst the latter again, many laboured under their articular affection since childhood. And still, I have no doubt, the mature age has a greater disposition to it than children; but, if it attacks the latter, I believe, the greater delicacy of organic structure, and the less of vital energy, makes it more injurious, and difficult to cure. The scrofulous dyscrasy, so frequent till the age of puberty, and much rarer in the mature age, seems also to account for the above fact. I confess I have been frequently at a loss, if I ought to regard a certain articular affection of the above feature as consequent to rheumatism, or to the scrofulous diathesis of the child.

I remember, amongst eighty recorded cases, of those on whom tenotomy has been performed, two-thirds of them concerned the knee-joint; then comes the elbow, ankles, and finally, the wrist. In adults these proportions were different; and the greatest difference I find is, that affections of the smaller joints, so frequent in adults, did so seldom occur in my practice even between six and thirteen years.

A fact of some interest is also this,—that I remember very few cases of acute articular rheumatism of the above description, with which rheumatic affections of muscles or serous envelopes of any organ of the three cavities, except the heart, were associated. This it is good to know; so, if your little patient, affected with a severe fit of rheumatism of one or more joints, should heavily moan, and appear not only depressed, but also oppressed in his chest, without explanatory words, on his side, you have *little* reason to attribute this to rheumatic pleurodynia, and *some* reason to suspect a beginning affection of the heart.

Another feature of rheumatic fever, the most frequent with young children, is that in which the general symptoms of fever are the more salient, and connected only with some local pain, fixed or erratic, in some joint or joints, or muscular or serous structures, without inflammatory swelling. In some cases of this kind the fever may have set in vehemently, and with rigor; and soon afterwards, or during the hot stage, plaintive moaning, or painful crying, or some other expression or movement, have shown you the presence of pain, but of which you cannot find out the locality. Within a day or two gentle perspiration will appear, more or less alleviating—or profuse perspiration, commonly not alleviating—the patient. In the case of beneficial perspiration, probably one or more exacerbations will still

come, with a remittent type, but from day to day less, and thus in a few days the fever will have entirely ceased. In the case of non-alleviating perspiration, on the contrary, you are less sure of what will happen. There may be, even under that kind of cutaneous action, some relief, but perhaps, ere long, burning dry heat will follow, and the second exacerbation possibly be stronger than the first; in one word, you may have to contend with a changeable, weary disease, of undetermined length, which, though you cannot find out any part swollen and inflamed, will be a subject of anxiety for the parents and a hard trial for yourself.

It needs scarcely to be mentioned, that the rheumatic pain connected with this form of fever, not only changes as to its intensity, but, what is more obscure and disagreeable in the speechless child, from the shoulder to the knee, or thence to the chest, head, or belly, thus puzzling your continued inquiries, and exhausting the confidence of the parents.

This is a form frequent amongst adults, in particular females, or otherwise delicate constitutions; and this, I can state, is frequent also with children less than three years old. There is by far less danger, but also less regularity in it, than in the acute articular rheumatism. Its duration may be two or three days, or as many weeks; but under favourable circumstances, there will be seldom longer any trace of it. Relapses, however, are as easy as in any other; the thermo-electric changes affect it like any other and the rheumatic diathesis, of which I will speak in another lecture, can be the consequence of this form as well as of severer ones. The urine shows likewise the rheumatic mark, but more irregularly, the acid deposit appearing more one day and less on another.

It will be useful to you to know, that whenever articular rheumatism becomes not alleviated by sweat, and that two exacerbations are past without swelling, you have little reason to anticipate the inflammatory swelling in the course of this case, however severe may be the pain. The same applies to rheumatic pain in other parts, *f. e.*, pleurodynia will not pass into pleurisy under the mentioned circumstance; nor is, according to what I have seen, even rheumatism of the heart, under the above circumstances, likely to pass into inflammatory changes.

Of chronic rheumatism of different parts I will speak more particularly in my next lecture; but I am obliged to make some remarks here on local rheumatism, in various forms, as far as they are connected and go along with fever.

All known rheumatic local affections commence with pain, *which, if it has to pass into inflammation, will be fixed from its beginning*, and in a child there will be some structural change discoverable already within the first twenty-four hours, or even ere twelve hours elapse, in vigorous young children. I must except from this statement, however, the head and the ear, which sometimes prove to be more difficult in giving, in a speechless child, sufficient evidence of their inflammatory character. In rheumatism of the joints, of course, every thing becomes sooner clear than in any other parts, by touching and moving them. Rheumatism, in form of

pain, can persist for an undetermined length of time, either as continued and remittent, or as intermittent; as fixed or erratic pain, without ever passing into inflammation. This we call, properly, rheumatism. The most usual seat of rheumatism are muscles; next, I believe, come the nerves. The latter kind of rheumatism takes the most subtle immaterial form. In other parts, in the serous and fibrous membranes, in particular in the joints, it may persist as pure pain, from beginning to end, but it may also pass into inflammation and swelling with their ulterior issues.

Now, if you have a young child in fever with the rheumatic character, and you have succeeded in finding out the seat of pain: if the fever runs high, and the pain is fixed for a few hours in any part, *except* a nerve or muscle, I know no sign—no circumstance, which at once could ascertain its inflammatory or non-inflammatory nature.

If twenty-four hours are past, the pain persisting fixed, but without swelling, there is already some probability of its being not inflammatory; and, finally, if that pain had already considerably remitted once or twice, or leaped from one part to another, then it is almost sure to be rheumatism. I will consider now the principal local complaints.

Rheumatic headache, if connected with fever, is very generally severe. We know from adult patients, that commonly it fixes in some lateral part of the head, about the temples. To enter here into a diagnostic disquisition, if the pericranium, the dura, or one of the serous meninges, be the seat of rheumatism, or other subtleties, would be perfectly useless for our purpose, it would, moreover, be almost impossible in a little child. For our purpose, I beg to remark:—Headache is pretty nearly constant in every kind of fever, I must therefore refer, to what I said before, on *febrile headache*. Rheumatic headache has, in the majority, a more local circumscribed seat, and the pain is more acute in it. The child will manifest many of those symptoms, which I have mentioned as belonging to commencing meningitis, (on which I will speak more particularly in its place,) sometimes vomiting or eclampsy will appear; in many cases, when you carefully touch, pressing with one finger all over the scalp, you will find out a decidedly painful spot: the child will move and cry more or less vehemently when you touch that spot, and not the least when on the other side. Sometimes not the slightest touch of the finger can be made without eliciting painful crying; in this case the scalp is the seat of pain; but even if the inside of the skull be affected by rheumatism in a limited spot, the correspondent outside is always more or less sensible.

It must be confessed, however, that as long as the paroxysm is vehement, consequently the head affected by the fever itself, and the whole system of the tender patient depressed, there will be great difficulty in making out the above diagnosis. Even children who can speak, and are otherwise intelligent, are so irritable and depressed that we cannot get good answers from them; and thus it happened with me, more than once, that I hurried with energetic leeching, when sometime

afterwards it became clear that there was no inflammation, but erratic rheumatalgia.

Within twenty-four hours this will, in the great majority, and particularly in young children, become clear, because in that time either remission, or even a second exacerbation after remission, will have taken place. Only in rare and vehement cases this sometimes happens the second day, and in this case, in fact, we cannot make so clear the matter, as to be allowed to delay longer than twelve or twenty-four hours, subtracting blood as a measure of prudence.

In the great majority of cases rheumatic fever shows remission and sweat within twenty-four hours; and then, if in spite of this the signs of acute pain in some part of the head persist, I consider this as rheumatic headache; and if the signs of headache remit along with the fever, and reappear more intensely with a new exacerbation, there is almost every certainty of its neither being nor becoming meningitis, be that headache rheumatic or otherwise. Profuse and not alleviating sweat, makes the rheumatic nature of the headache still clearer. You must not forget also in this instance, what I said already in another lecture, that in febrile headache the child lies rather quietly moaning; under an acute local pain of the head, like that of rheumatism, there is more moving about with the head, or with one of the hands towards the head, more like in the beginning of meningitis.

Rheumatism of the eye, along with fever of the kind, is not unfrequent in children. In its fixed and inflammatory form, in the serous or fibrous tissues of the eye, it is too well known and easily perceptible on the child, to require a particular mention here. It attacks commonly only one eye, or at least one prominently severe.

Rheumatism of the eye, generally remittent and connected with a mild remittent fever, or no fever at all, will be discoverable in little children by the different sensibility and appearance of the affected eye. The eyelids are less open, and move less freely than those of the other eye.

Next I must mention the *rheumatism of the ear*. This is also very difficult to diagnosticate, when it comes along with the fever, in the first twenty-four hours; but the second day, either the fever will have remitted, and the signs of earache become more prominent; or if otitis has to develop, already some swelling and tenderness of the respective parts will be discoverable by the skilful practitioner. Other objective signs of pain in the ear in little children, consist in some movement of one of the hands towards one of the ears, and that the child if set upright in the arms, drops the head towards the affected side. In the great majority of the cases of acute otitis I saw connected with it moderate or slight, and remittent fever; and otalgia, which very generally appears to be of rheumatic origin, and in which the pain is by far the most violent, generally not connected with fever at all. On these subjects therefore, I will speak more properly under the head of chronic rheumatism.

Pleurodynia is frequently connected with rheumatic fevers of children, mild as well as severe. It can have

its seat, there is no doubt, in the pulmonary pleura; but commonly it is the costal pleura and adjacent muscles, together, or separately each of these parts.

I cannot say in which side I have more frequently observed rheumatic pleurodynia; but I believe constantly on one only. It is a severe pain, vehemently increasing by the respiratory movement of the chest in deep inspiration. In fact, the child's breathing in this case will appear to be superficial and cut short; and both fever and acute pain will concert in giving the child an alarming aspect.

In general it will lie quietly on one side, half dozing, interruptedly moaning, with closed eyes. As soon as the mother tries to take it up or change its position, it commences to cry, but at once we see it is checked in doing so by pain. Under this circumstance, commonly some dry short cough comes forth; and in some cases this happens repeatedly for some time, even if the child has not been moved at all.

Now this I have noticed frequently; and it has not seldom been mistaken for pleurisy. And there is no doubt *pleurodynia, connected with fever, looks to the eye decidedly and in everything like pleurisy* in its first stage, before exudation has taken place. Nay, what is more, we auscultate, and find negative results equal in both cases. In instances, where the pain is in the pulmonic serous membrane, or in the costal pleura, but very intense, this side of the chest moves less than the other, and the respiratory sound is lessened, just as in the commencement of pleurisy. But let me remark that this uncertainty can last for you only between twelve and twenty-four hours; because rheumatic pain of those parts, if connected with fever, may continue in the same way for some time; but pleurisy, if it has to come, will show itself in children, according to my experience, within the first twenty-four hours of fever, and most frequently within the first twelve, by some friction-sound at one side of the chest; and afterwards by the more significative dulness on percussion.

Thus stands the diagnosis in cases where the pleura alone, without the intercostal muscles, is the seat of pain; in most instances, however, the latter will be affected too; and then, by careful touching and pressing with our fingers upon the intercostal spaces, we shall see clear at once; because it will appear that the pain is very superficial, which is not the case with pleurisy; for in this case the child will bear our touch better.

As to posture, according to my experience the little patients lie, in pleurisy as well as in *pleurodynia*, if the pain is very severe, generally on the healthy side, or on the back.

But let us suppose, now, the child lies from the preceding day in high fever, heavily moaning, in depressed immobility; his respiration is short and frequent (which, of course, it is in high fever of any kind); there is not the least cough; and the mother did not notice, nor tell you, that in moving the child lively expressions of pain come forth; and the like. Let this all be so; still there are means of ascertaining the presence and seat of pain, if even it were limited to only a small spot of the chest, and even allow some passive move-

ment, without considerable increase of the pain. This means I have already mentioned; it is to push gently, but with gradually increasing pressure, the abdominal viscera towards the diaphragm, whereby forcible inspirations being produced, it will soon become clear that this act is prevented by pain. And as auscultation and percussion will give you negative results, it will be nearly certain by that double circumstance, that there is pain outside the lung, or even outside the chest, in the muscles. This being ascertained, exploration by touch may still bring you nearer to exactness.

But, as I mentioned before, though pleurodynia, with high fever, in the first twelve hours, or longer, may completely imitate beginning pleurisy, consequently, in a strong child, even require leeching, as means of prudence; yet towards the end of the first, or on the second day, the fever having become more or less remittent, and the above chest-symptoms persisting still, without further physical change in the respiratory sounds, then you may be sure that you have rheumatic pleurodynia before you, and no danger of exudation.

I have dwelt so long upon that apparently little subject, because I have seen a good deal of anxiety, confusion, or mistake about it—because it is a frequent form of rheumatism with children, and nowhere you find directions concerning it in the speechless patient. If we wish to keep up the credit and honour of our remedies in the present age, we must pay increasing attention to every subject of practical concern. It is not indifferent, if in cases just alluded to, a child is leeches, or not leeches. A few days ago I had to attend a child, three years old, of my distinguished colleague, Mr. N., a child (with the rare peculiarity, that till the present day there was no possibility of getting into her mouth anything besides milk and water) of a very delicate constitution. She had a strong fever, with pleurodynia. Leeches in this case were not an indifferent question.

Lumbago, or let us say rheumatism of some *muscular* part near the loins, is also a frequent comparison of rheumatic fever in children. I happened, many and many times, to discover it in children one or two years old. I found it seldom connected with high fever, but almost always with a moderate or slight degree. *Lumbago* itself is variable in intensity. If both *lumbago* and fever are strong, then the child lies on his back, with superficial breathing, steadily in the same posture, with the eyes shut, and heavily moaning, entirely resembling acute instances of *muscular* pleurodynia, with the only difference that the immobility is still greater in *lumbago*; and the slightest change in position causes vehement crying, which, of course, soon becomes checked by pain.

In severe degrees of this affection its presence can scarcely escape the attention of a careful mother or physician, and this being clear, a minute examination by touch and pressure by our finger, auscultation, and some purposely but gently-performed movements, will make the diagnosis of the locality clear.

Slight degrees of *lumbago*, however, are easily overlooked in a young child, or, as I have seen it, con-

founded with pleurodynia, and mustard poultices placed under the armpit, instead of the lumbar region. Be very exact in your examining and diagnostical proceedings with children, and you will not be frequently mistaken in that way.

Rheumatism of the heart. Pericarditis, and endocarditis, I am sure, are exceedingly rare in infants, but as they are far more dangerous to life than in adults, it is our duty to watch the child carefully, and auscultate twice or more every day, as soon and as long as signs of rheumatic fever is perceptible; I should say, perhaps, as long as signs of the rheumatic diathesis are present in the child.

After all that I have seen, I must believe, that amongst acute affections of the heart in children, the great majority are owing to rheumatism. Of the chronic form I shall not speak in this place.

Let me request you to peruse carefully the table of my distinguished colleague Dr. West, of London, which is annexed to his "Lecture on Diseases of the Heart,"—a short but excellent treatise on that subject, containing a comparative survey of thirty-three cases of diseases of the heart in children, which in many respects it will be useful to you to have carefully looked through. Nine acute cases are of the rheumatic origin, and a great many others of the chronic kind, of which the earliest commencement is not known. Many of them have arisen from the same source.

I am exceedingly sorry that I am, as yet, at a loss for figures concerning that disease taken from my practice at Pesth; but you will be surprised, knowing the excessive frequency of rheumatism there, when I say I am sure that all diseases of the heart which we have witnessed and recorded in the Children's Hospital, (upon about 16,500 various diseases treated there till the summer of 1849,) there will scarcely be more than half a dozen children under the fifth year of age; at the same time I must express my conviction, according to which, amongst all cardiac and pericardiac affections which I have seen in the hospital, as well as in an extensive consulting practice, from infancy up to puberty, of which the total number scarcely may exceed sixty or seventy—that, amongst these cases, almost all, which were not *secondary* hypertrophies or dilatations of the right ventricle, (in consequence of chronic bronchopneumonia in older children,) and of which we could get some good data, or examination near their commencement, almost all were considered by us as of rheumatic origin.

Some authors state the affection in question to be far more frequent in infancy; I did not find it so. And it appeared to me, that most of the cases of valvular, or in general endocardial affections, which I have seen in adult patients, originated rather from what some have called *gouty* rheumatism, or simply from gout, than from simple rheumatism. Both the former are not proper to infancy.

In this place I have not to speak in detail on affections of the heart, I have only to point out to you the rheumatic origin of most of them in children, and give you some hints how to perceive their first beginning in

a speechless child. First, you may look at it as possibly a case of acute articular rheumatism; but then, any fever with the rheumatic character, (of which I will speak by-and-by,) in particular as long as the urine maintains the specific deposit, can produce rheumatism of the heart. The most frequent seat of it in children, I believe, is the pericardium, and less frequent the endocardium. As long as rheumatism of these parts exists only in the form of pain, it will be scarcely possible for you to distinguish it in a little child from pleurodynia, when the pleura aches just near the heart. I have met with cases where strong palpitation has been present during fever of the rheumatic character, along with heavy painful moaning, short and frequent inspirations,—where, in spite of the absence of either pericardial friction or endocardial murmurs, I referred the pain to the heart; it is, however, impossible at that stage of rheumatism of this organ, to exactly distinguish if it be in the peri- or the endocardium. I have had cases of that kind, in which pain and palpitation have ceased quickly or slowly, without a sign of material change.

If rheumatism commences to go on the course of inflammation in the heart, then the slightest friction-sound, or the slightest bellows-murmur, (let us say any kind and degree of endocardial murmur,) must act upon your mind as an imperious reason to check it, if possible, at that early stage, by energetic treatment.

The question, however, is,—*Is every pain of the heart or pericardium during rheumatic fever liable to produce structural changes or exudations?* According to my belief, I must say not. At Pesth, in adult patients, (nay, in myself, and I was for some years very frequently affected with rheumatic fever and articular rheumatism,) very frequently I had cases in which a decided muscular rheumatism, either of the shoulder, loins—or, even rheumatism of the knee, suddenly leaped on the heart, causing so severe a pain in this organ, with or without palpitation, that some patients described it as atrocious; then it passed, after hours or days, entirely, or returned again, and no mischief has been produced. Where these attacks of pain in the muscular tissue, in the serous lining, or in some nerve? I do not know, but I strongly believe that rheumatism of this noble organ is not rare in adults; and in some cases, as far as I could ascertain, I thought I had before me the same form many times in children.

As to *articular rheumatism*—be it simply pain or inflammatory disease—I mentioned already that it is the most easily recognizable rheumatic local affection, even during the symptoms of fever, so troublesome and alarming in a child. I will speak more particularly of it in a future lecture, under the head of chronic rheumatism. Here I only wish to mention, that in general the joints, but amongst these the knees are the most frequently injured or destroyed by rheumatism in children, I at least saw them affected and disorganized much more frequently than the ankles or elbows at that age. I saw the acute inflammatory, as well as the destructive chronic form, with their bad results. For my present purpose, which concerns these articular

affections only as far and as long as they are *febrile*, it will be sufficient to point out their early origin, soon after, along with, or a little before a vehement paroxysm; and in order to be successful in checking them, I will recommend you, once more, not to neglect, in any primary paroxysm, to move and touch carefully all the joints of the child; thus it is scarcely possible to overlook that form.

I mentioned at the head of this lecture, in children under three years I seldom saw the general acute articular rheumatism, as we meet with it in adults; commonly in young children only one or two joints are affected. Simple rheumatism, with all its changeable attributes, is more frequent in the arm-joint, next in the knee.

The *rheumatism of the neck*, so well known as productive of the torticollis, was in my practice not so rare an occurrence in rheumatic fever of young children; it is easily distinguishable by the repeatedly-mentioned means of investigating a child. It is not dangerous; no swelling nor suppuration will ensue, but not seldom permanent contractions, *i.e.*, torticollis.

Let it be observed, the disagreeable issue of rheumatism of muscles or tendons, is contraction; that of serous and fibrous membranes, exudations of various kinds. Of the rheumatic neuralgia, we know not, as yet, material changes.

Rheumatism of the Stomach.—Before all, I beg to remind you of what I said in a former lecture on *febrile gastric disorder*, *i. e.*, functional derangement of the abdominal organs arising from troubled innervation by any kind of paroxysm. This, therefore, is a familiar companion of rheumatic fever too, and requires simply patience until the crisis carries it off, or the use of an emetic and purgative, according to signs and indications, pointed out in the place mentioned. But there may be, instead of common febrile derangement of the abdomen, rheumatism localised in it, in which case the above remedies would cause great mischief to the little sufferer.

Rheumatism of the stomach, as far as I observed it, on grown-up people, causes from time to time fearful constrictive pains of that part, with the utmost intolerance of food, cold water, and remedies. The pain is commonly remittent, and if continuous, then it will, at least at intervals, increase for a short time. The epigastrium is tense, and resists but little pressure. There is much thirst, but only small quantities of liquid tolerated, rather warm. All these symptoms can be more or less severe. The tongue is proportionally less red and dry than in the erythematous, or (the very rare) general inflammation of the stomach. I have observed in some well ascertained cases of rheumatic fever, with rheumatism of the stomach, a dry red stripe, from half an inch to an inch broad, of a very striking aspect, like a ribbon, from the top of the tongue to the bottom, just along its middle third, and the other two thirds outside more or less approaching the normal aspect. This I have observed also on some children, but not of the tender age. I cannot say that it is quite peculiar to rheumatic fever, and therefore of much diagnostical value.

I think I am right in drawing the following proportional relation between local symptoms and fever, in gastritis and in rheumatism of the stomach. In gastritis, the acuteness of the attack, the pain of the stomach, and dryness of the tongue, are in proportion to the degree of fever.

In rheumatism of the stomach, the pain may be very intense, with moderate or little fever, and a moist tongue. Now this is of some value, though not without exceptions. No doubt, it is of the first importance to know real inflammation, be it primary or arising from acute rheumatism of that organ. In about twenty-four hours this becomes clear; under that time, if in high fever you find the child vomiting, with tense epigastrium, a lively expression of pain in the countenance, and continuous painful moaning, instantaneous increase of those symptoms, by a painful outcry of the child, as soon as you press with your finger upon the epigastrium; if all these are present some hours, and cease not under suitable warm poultices, it would be a fault to wait longer with energetic antiphlogistic means, and expose the child to the possibility of danger by delaying until the fever, and along with it the gastric affection, might show its real nature.

Rheumatism of the liver, having its seat in the serous envelope of this organ, causes painful moaning under the respiratory movements of the chest and diaphragm, bilious vomiting and similar diarrhoea, and is easily discoverable by carefully touching over the liver. I believe most of those cases, which in the first years of my hospital practice I have called "hepatitis," were but rheumatic affections of this organ, only a few of which had the inflammatory character.

Both *rheumatism of the intestines* and *rheumatic inflammation of the intestines* are rather common in children, even of the tender age. Rheumatism in these parts, connected with fever, can scarcely be overlooked; besides a continuous uneasiness, and painful expression of countenance with moaning, from time to time the pain increases so far as to cause vehement painful crying, with the usual drawing up and moving of the legs, then usually comes a sudden diarrhoea of thin serosity, a little yellowish in nurselings, above that age not unfrequently greenish. After these tumultuous evacuations the child becomes more quiet, but appears still uneasy, the belly is puffed up and tender on pressure. If the affection be inflammatory all these signs are more strongly expressed, and the expression of pain itself almost unremittingly strong.

In *peritoneal rheumatism* the more puffed state of the belly, with exquisite tenderness all over its surface, will soon discover the seat of pain. Serous diarrhoea and most of the before-mentioned symptoms will be present. I believe in fact, that the abdominal peritoneum may merely be affected in this way, without involving the intestines. As to the question,—Whether the seat of rheumatism be in the serous or muscular, or both envelopes of the alimentary canal? I believe that it can take place in all or any of them; but to make a distinctive diagnosis between the affection of either coat is, I think, as impossible as useless.

I remember an old and respectable colleague of mine expressed strong doubts as to the possibility of diagnosing the abdominal seats of rheumatism in a child affected with fever, because the child, he said, is so irritable, and feels so much tenderness all over its body from the fever itself, that at a moderate pressure by your hand it will show great irritability, with some expression of pain, and not bear the touch, even if there is not the least degree of pain or irritation present. Similar remarks I may be allowed to state, arise from superficiality, which may be carried with us to the grave.

There is no doubt that there will be instances in which we cannot make out the seat in the first twenty-four hours, or whether it be simple rheumatism or beginning gastro-enteritis or peritonitis; but these, (in which, however, a good practitioner will know what to do,) are not frequent for him, provided that he be skilled in children's ailments. It is also of importance not to overlook, under the recent primary paroxysms, those inflammations. Now in this respect. I can assure you that a young child affected by any high paroxysm, lies down-cast, depressed, heavily moaning, with half-shut eyes; and if in this state you press upon the belly, there will be expression of acute pain, by vehement outcries, only in the case of real significant pain; under other circumstances, the child in fever will scarcely notice your touch.

Rheumatism of the hip-joint, I very seldom saw connected with strong fever; it appears more frequently in the chronic form, and never, as I am aware, before about the sixth year, when it will be easily diagnosed.

Now, I have finished that short review of *rheumatic local affections*, each of which can exist merely as pain—fixed, or erratic, leaping from one part to the other—or pass within the first day or two into inflammation. In my next lecture, I will try to give you more exact practical directions on the rheumatic fever in its different connections with the described local affections.

INTRODUCTORY LECTURE,

DELIVERED AT THE

LEEDS SCHOOL OF MEDICINE,

OCTOBER 4TH, 1852.

By THOMAS NUNNELEY, Esq., F. R. C. S. E.,

President of the School for the ensuing year.

Printed by desire of the Council of the Leeds School of Medicine.

GENTLEMEN,—My friends and colleagues, who form the Council of the Leeds School of Medicine, having done me the honour to elect me to the office of President for the present year, it becomes my duty, in accordance with a custom which has for some period prevailed amongst us, to deliver the introductory lecture of the session, which is now commencing. Before, however, formally entering upon the immediate business of the day, I would in their names, as well as in my own, beg to