LECTURES
ON THE
DISEASES OF CHILDREN,

DELIVERED IN THE

Chatham Street School of Medicine, Manchester.

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LECTURE XVI.

Treatment of febrile rheumatism in its various forms.

General remarks regarding the first and principal febrile symptoms. Rheumatism of the head may be rheumatalgia or inflammatory rheumatism. Indications regarding the head:—leeches, cold fomentations, a full dose of calomel, dry covering, mustard poultices, blisters; effects of, and difficulty with, opium; rheumatism of the stomach; absolute abstinence from medicine necessary. Indications in acute stages of rheumatism:—leeches, warm narcotic fomentations, and mild evacuating injections; in smaller degrees, small opiate injections. The precautions necessary. Obscure symptoms of rheumatism of the stomach, which is easily aggravated by medicine. Rheumatism of the intestines and liver, the most frequent amongst rheumatic local affections in childhood; its general characters—of pain and stools. Expectant conduct, if diarrhæa supervenes upon a recent fever. Alleviating qualities of the bilious kind. Symptomatological comparison between simple bilious diarrhæa and that which arises from rheumatism of the liver; different and opposite treatment of both. In simple bilious diarrhæa, no opium, no direct checking, but emetics or castor oil. In children in these cases, ipecacuanha is in general to be preferred to tartarized antimony, with the exception of the acutest articular form. Occasional combination of the acute bilious dyscrasy with rheumatic fever; treatment. Rheumatic bilious diarrhæa—characters and treatment;—the inflammatory form—characters and treatment. Character and changes in the fever connected with the sero-bilious form—issues, complications. The whitish serous diarrhæa—symptoms and dangerous character; death from it; analogy with cholera; pathological uncertainty. Treatment:—minute doses of calomel; energetic external means. Brownish, and other dirty-looking serous stools. The yellow diarrhæa. Catarrhal diarrhæa; its connexion with rheumatism. Peritoneal rheumatism. Recapitulation and general principles of the treatment of febrile rheumatic diarrhæa. Few internal remedies; faults in practice in this respect. Imperfection of our knowledge of diarrhæa of children, and their importance.

GENTLEMEN,—In the treatment of rheumatic fever and local affections connected therewith, I beg to remind you first of those general directions exposed in former lectures, concerning any fever in its commencement before a special character has come forth. Heat and pulse, head and abdomen, attract our attention first in many instances, as in other fevers. You ought not to be too active at the onset, but wait twelve or twenty-

four hours before you take a decided step; even then it will require close and clever examination—in the well-known manner—to unravel, in the speechless child, how far the head-symptoms may be attributed to fever itself, how far to gastric disorder, or to local rheumatism.

Rheumatism of the head, as you know, may be rheumatalgia, or may take on the inflammatory character. Let me now suppose there are evident symptoms of pain in the head, that you have found out the painful spot, and that the plaintive moaning and drooping down of the head have not diminished, although the bowels have been freely moved. If these be the symptoms during the first day or two, whilst fever runs high, or increases, then prudence commands you to apply leeches and cold fomentations afterwards. Besides, you may order one full dose of calomel, and not many small ones. If the fever and heaviness of the head be less, the signs of rheumatalgia, on the contrary, severe and evident, then you will do better by applying a mustard poultice to the neck, and then covering the head, or its affected side, with a large piece of thin oiled silk. Thus local perspiration, and by it relief, may be effected, whilst cold fomentations might have increased the pain.

Opium is exceedingly beneficial in the latter instances, only that the diagnosis must come to a decided result before you could use this powerful remedy. Lively expression of pain, with restlessness, total absence of soporose oppression, are sufficient reasons to recognise the fever as rheumatic; these are essential conditions for its use. I have been blamed, in a German periodical, some years ago, for this, as they said, hazardous practice—opium, in a head affection of a child. I think, myself, it is difficult for the young practitioner to take, with security, so important a therapeutic step; but had I now, as I had at that time, a choice of cases before me in a hospital, and skilful sub-physicians to watch carefully the symptoms, I would not hesitate to show you, occasionally, a case, which I might regard as mere rheumatalgia of the head, in spite of the fever, and the beneficial effects of opium therein; the fever, of course, must not be too high, and the doses only moderate, or small ones. I prescribe Dover's powder in this case, from a quarter to one grain, to children from six months to two or three years' old.

If, by the means indicated, sufficient improvement is not effected on the second or third day, the most promising remedy will always be, a large blister on the neck, as soon as the degree of fever is no longer too high for its use. The state of the abdomen claims not less consideration than the head. Besides the management of the stomach and bowels, by an emetic or purgative, indicated in the case of bilious or gastric derangement in any kind of fever, and already pointed out in previous lectures, there is in the rheumatic sometimes an encouraging or even urgent indication for some strong remedies—like quinine and opium—which, in order to produce the intended good effect, require a healthy condition of the stomach.

Rheumatism of the stomach, if ascertained by the signs indicated in my last lecture, excludes every medi-

cine, be it intended for the stomach itself, or to act, through it, upon some other part.

As to treatment of the rheumatic stomach itself, there is nothing more essential than to abstain from medicine. One single drop, or grain—unless it be of a homœopathic or imaginary kind—will be sufficient to increase the disturbance. The irritability and intolerance of the rheumatic stomach in children exceeds all belief. I have seen two drops of aqua laurocerasi excite sickness; and a few teaspoonfuls of cold water will occasionally have the same effect.

Let us suppose the child to have been affected for only one day with frequent vomiting, tense, tender, and hot epigastrium, in connexion with high fever,—let the child be so much affected that it cannot hold up its head; it moans heavily, with shut, or half-shut eyes; the pulse is about 150 to 170; costiveness, not relieved by castor oil injections. In this case, be it gastritis, or merely rheumatism threatening with it, you must apply leeches, then warm fomentations of a poppy-head decoction, and injections of *small quantities* of warm rice-water, every four hours, with some fresh almond oil. In the absence of those (apparently, at least,) inflammatory symptoms, but with signs of severe pain present, I adopt a different treatment; I recommend a small injection of warm water, with two teaspoonfuls or more of table oil, and half that quantity of sugar; not to be pushed too far up into the rectum, whilst the stomach is to be kept under hot fomentations of the above narcotic properties. When the injection comes away, then it will be seen whether a second of the kind be advisable. Thus, after a sufficient evacuation of intestinal secretions had been effected, I order an injection of one or two ounces of warm rice-water, with a proportionately full dose of tincture of opium, to be repeated after a few hours, if required, or sooner, if a part of it comes away, valuing in this case the quantity which might have remained in the bowels. Do not neglect the importance, in every case, of opiate-injections, if you wish to get an efficient effect without dangerous narcotism. These measures may be repeatedly assisted by one or two leeches; and if all be without effect, as soon as the degree of fever allows it, a blister must be applied—the sovereign local remedy of every form of rheumatism.

According to my experience, acute rheumatism of the stomach, not a frequent affection of children, very seldom takes the real inflammatory character; it generally remains within the limits of rheumatic irritation or rheumatism, and in the majority of cases I saw, was connected with intestinal rheumatism, or that of the liver.

The seat of the affection may be in the muscular or serous coat, or in both together; it seems impossible to establish in the living child a pathological and diagnostic distinction between both. The mucous membrane is consensually irritated, and thrown into functional disorder. In inflammatory degrees, of course, it must share, more or less, in this process too.

In some instances the affection in a child affords very obscure symptoms; we observe no salient pain, no

tenseness of the epigastrium, only the patient is exceedingly restless, thirsty, with occasional appearance of, or continued sickness, and vomiting every small quantity of milk, water, or medicine, which it swallows. There we have to choose (according to appearance) between the emetic or the total abstinence from medicine, and great suffering and mischief ensues, if unhappily you fall into the error of administering the former when the latter is required. I can assure you, however, I have seen in these instances, great inconvenience also from what may be called bland medicine. In rheumatic irritability, as well as in the nervous affection of the stomach, there is no kind of internal medicine which is bland—everything is irritating. A practitioner who is not aware of this, changes his prescription, and changes again, under the continuous increase of uneasiness, sickness, and exhaustion of the patient.

Intestinal rheumatism is, on the average, a little less painful, and more manageable, as far as regards our treatment of it by the mouth and stomach, but still the sufferings of the child are occasionally very great; sometimes it is connected with consensual irritation of the stomach. There is always some expression of uneasiness or pain referrible to the belly, which generally appears bloated, or tense, but from time to time the child bursts into loud painful moaning or crying, under which he draws up, and stretches, his legs alternately, or if not too much depressed by the fever, turns from one side to the other, all signs indicating a more salient attack of pain, and this lasts generally until a strepitous discharge of serosity follows, and appeases the little sufferer for some time, but not so completely as in cases of flatulent or spasmodic pain. The presence and character of fever, besides, assists us in settling the diagnosis. Vomiting is also an occasional symptom, be it from consensual or material disturbance of the stomach. Intestinal rheumatism, with diarrhoea, is a frequent, perhaps the most frequent, form of rheumatism in the early period of life. The seat of irritation, of which diarrhoea is the consequence, may be either in the serous or muscular coat, or in both together, and in acute cases partake more or less of the inflammatory character. In the great majority of cases of rheumatic diarrhoea in this sense, the emitted serosity is thin, mixed with more or less of mucus and bile, and of either a yellowish, whitish, or greenish appearance, according to the predominance of either of those elements.

There is nothing more essential in children's practice, particularly with patients of tender age, than to be for a time inactive observers in recent cases of fever, followed by diarrhoea. In many cases that sudden outbreak of diarrhoea, with or without sickness, will decrease and cease by itself in a day or two. In many instances it will prove beneficial, diminishing fever or pain, when it must not be checked, though the attack is likely to produce an alarming appearance of pallor and languor in the countenance; but you must consider and value not only one or two symptoms, but the whole in their relation.

The alleviating quality of diarrhoea in fevers of every kind, is frequently exhibited by stools containing an

abundance of bile, and my remarks on this—thus far, refer to the rheumatic as well as to any other form of fever. But there may be a great proportion of bile both in the motions produced by rheumatic irritation, when it extended from the intestines to the liver, and in those which are simply bilious. To discern both of these conditions is of great importance. In the former case it would be a fault to attempt checking it by different means, in the latter, not only this, but if not an emetic, at least a dose or two of castor oil may be required. And again, in what we may call the rheumatic-bilious diarrhoea any purgative is improper, and the emetic generally causes a most vehement irritation with pain, hyperemesis and overpurging.

Those who are accustomed or careful to look at these matters more minutely than it was the custom heretofore will at once perceive the importance of the point in question. How to value and manage diarrhoea which supervened upon, or commenced along with, rheumatic fever, in a tender and speechless child, is indeed a question both extensive and difficult enough to realize. I may begin, however, with a few practical hints, in addition to what I said on intestinal rheumatism in the last lecture.

On the average, in bilious diarrhoea of rheumatic origin, the child shows more expressive signs of pain, than in the simple bilious form, (see Lecture XIII., and the belly is more puffed up around the navel and downwards, be it rheumatism of the intestines, peritoneum, or liver. In the latter case, their seat of pain being in the serous envelope, as soon as we exert pressure over the right hypochondrium, the abdominal muscles contract and prevent pressure of our fingers upon the liver, which, if we attempt to do, causes the child at once signal pain. In the bilious state there may be pain, but this is not so severe; there may be fulness or tension of the right hypochondrium, but it is not so great; there may be also a quantity of serum mixed with the bilious discharges, but it is much less than in the rheumatic. Besides these manifestations, I may add, if the character of diarrhoea is so decidedly and strongly bilious as to require instead of checking, an emetic or castor oil, at this stage of it, the fever will be less remittent, and the child, on being lifted up, manifests more decided signs of a heavy head or even oppressive drowsiness. The bilious diarrhoea, if unconnected with rheumatism of the liver, but arising from a certain chemical change in the blood, frequently met with in acute fevers, particularly in summer time, presents neither so much pain as to call for the use of opiates, nor so much loss of liquids as to justify the idea of directly checking it. It supervenes occasionally upon the rheumatic fever, in its more acute degrees, with severe local affections, just as it does in ague, pneumonia, measles, or scarlet fever, commonly within the first two days, when we frequently see after its appearance, a diminution of the leading symptoms; and in this case we neither leave it to itself, or promote gently the evacuation of bile by castor oil; or, if the head of the child appears oppressed, and we find the region of the liver uncommonly full, but no pain under

pressure, we prescribe an emetic. I take it for granted in recommending this, that there is no sign of abdominal rheumatism present, because this would entirely forbid the use of an emetic. In general I may say, if in the course of rheumatic fever in a child, with however slight indication of abdominal pain, an emetic seems to be required, prudence commands us to use ipecacuanha in lieu of tartarized antimony, with the only exception of the acute articular form, by which, besides the joints, also the heart is threatened, and in the first stage of which the more decided effect of tartarized antimony may be desirable. In some instances, (rare in young children, during the hot part of summer or autumn, as we had it here in Manchester this year—1852), the acute bilious dyscrasy of the blood (over carbonisation) complicates rheumatico-fever, and may also cause bilious vomiting or diarrhoea. In this case the treatment must be modified, more or less, according to the principles expressed in Lecture XIII.

But there is a rheumatico-bilious diarrhoea different from the former, when rheumatism of the intestines acts upon the liver, or rheumatism has even its seat in the liver, and thus the secretion of bile becomes increased. It consists of a greenish serosity, but not so dark a green as the former. Pain and other symptoms proper to this state I have already mentioned. There may be evacuated a great quantity of serum by frequent stools, but if the marking green colour and a certain density of the liquid show a great amount of bile, and at the same time a high degree of heat of the skin and heaviness of the head are present, in this case, in spite of the rheumatic character of the diarrhoea, of the severity of pain, and loss of liquids, opium, in whatever form, and however mildly acting, is counter-indicated, and other means must be resorted to, which are the following:—According to the degree and character of the pain and fever, leeches, and afterwards warm poultices must be applied; internally, simply tepid rice-water. No opium, no calomel.

The less we find to be the proportion of bile to that of serosity, and the more the degree of pain to that of the fever and the heaviness of the head, the more the case approaches that kind of rheumatic diarrhoea, in which opium becomes indicated, and in which sinapisms or blisters have an excellent effect. But it will be in its place to call more especially your attention to the

Inflammatory rheumatic diarrhoea, or, in other words, to that form of diarrhoea which is the effect and sign of inflammatory abdominal rheumatism, which we may regard as the first degree of serous enteritis. This character of rheumatic diarrhoea will appear, if it has to come, within the first few days of an acute febrile onset of abdominal rheumatism; tension, and pain, will be so severe as to depress considerably the power of the child. There will be great tension and heat of the belly without remission, the child will lie rather quietly on his back, emit most painful sounds and cry, though sometimes languidly, under our pressing on the belly. In this form, vomiting is also one of the most obvious forms and the stomach may be more or less affected in it, along with the small intestines. Acute rheumatism

may pass into acute enteritis, in which the quantity of serosity becomes less and less, but still continues thin, of a greenish brown or reddish brown colour. Vomiting of muco-bilious liquids frequently takes place, with evidently painful exertions of the child. On close inspection by the eye or microscope, we find in the majority, blood mixed with the sero-bilious or sero-mucous liquid. The seat of this form appears to be most frequently in the lower half of the intestinal tube, in a more or less extensive tract of the serous and muscular coat. In higher degrees, the inflammatory process very soon spreads to the mucous membrane, which, in addition to the serosity, causes the excretion of thick mucous or croupous pieces, with or without spots of blood, in general under severe tenesmus. In fact, tenesmus is infinitely a more characteristic symptom proper to the irritation or inflammation of the mucous than of the serous membrane. But this belongs not to the present purpose. I wished only to mention the first step of inflammation, when arising from acute rheumatism. The treatment is obvious:—leeches, in sufficient number, and warm linseed poultices; to appease the thirst, and at the same time the best internal remedy, is thin tepid rice-water, and similar injections, but only small, pushed up slowly in a gentle manner, and to be repeated according to their effects twice, thrice, or four times a day. All these are little things, but of consequence in children's practice. They must not be too thick nor too much in quantity at once, in order to avoid the evacuator movements of the intestines. Besides this, from a scruple to a drachm of the strong mercurial ointment may be rubbed in on the belly at once, but not to be repeated (if repetition should be required) before the third day. If the stomach of the child presents no trace of irritation, we may assist this treatment by from $\frac{1}{12}$ to $\frac{1}{16}$ of a grain of calomel every four hours (for the age from six months to two or three years), with only from two to four grains of sugar, to each dose; and if there be no counter-indication, (*i. e.*, no signs of extensive biliosity, and the head not too much oppressed) from $\frac{1}{12}$ to $\frac{1}{4}$ of a grain of Dover's powder. The complication of gastric rheumatism, however, excludes the use of both.

As to the fever connected with the mentioned varieties of sero-bilious diarrhoea. It may be in some cases very high in the commencement, but unless the intestinal rheumatism passes into enteritis, it soon becomes remittent, and in ratio to the quantity of emitted liquid, the temperature of the skin abates, but the frequency of the pulse increases more or less.

The inflammation from rheumatic diarrhoea is not so frequent in infants and children as the former described, and less so its transition into decided enteritis, although in febrile cases, as soon as intestinal pain becomes salient, leeches are the favourite remedy. But they are more so, I am sure, than required.

The transition into chronic intestinal rheumatism, is not a frequent issue of this form. According to what I have seen, children seldom die from the sero-bilious diarrhoea, except when the rheumatism gives rise to in-

flammation, of which we find well known traces in the dead body. In some cases the emitted liquids assume other colours and properties, of which I will speak by-and-by.

The complication of peritoneal rheumatism with all the various forms of the intestinal and sero-bilious diarrhoea, is an occasional occurrence. I will mention in its place some particulars concerning it. Rheumatism of the stomach is rarely connected with it. We know already the symptoms. Now, I will draw your attention to another acute form of diarrhoea. The less the proportion of bile in the evacuation, the more they assume a whitish colour, and in some cases they are quite white, with a variable quantity of spurious mucosity.

The *whitish rheumatic* diarrhoea presents, of course, like the other, the general characters of rheumatic pain, of sudden and strepitous evacuations, after which the pain becomes less. It is generally very abundant, and differs, according to my experience, from the bilious or sero-bilious, in as far as under the influence of these, in many instances, we perceive a diminution of the fever; this is not the case with the whitish serosity, it lessens the heat of the skin, but without lessening or even augmenting the frequency of the pulse; more than any other it has an evident exhausting effect. It contains occasionally, a striking quantity of albumen. Fainting and vomiting sometimes precede the motions, without local affections of the stomach. It has nothing of the bilious, and not a decided inflammatory character. In fact the pain is on the average more remittent than in the sero-bilious kind, and the languor, in proportion, is more alarming. In some cases pain is excessively severe, I have not been able to come to a satisfactory conclusion on its nature, but assuredly many a child dies from it. I have seen it in Manchester the same as elsewhere. Sometimes after having been profuse it lessens, but the skin and pulse at once show that it is exhaustion of the vital power which causes its decrease or collapsus.

This is the only form of febrile rheumatism which, under my own observation, has caused death in a direct way, and without complication. And I have seen, on *post-mortem* inspection in cases where death has occurred in consequence of this, all very young children, where the intestines were white and anæmic, but the liver and spleen tinged with dark venous blood; and like what I have observed in some instances of cholera in children, great quantities of rice-water-like liquids have been evacuated.

The years 1844 and 1845 were the most fruitful in rheumatism at Pesth, and (as I mentioned in my Hungarian work,) hundreds of cases of acute rheumatism were entered at that time in our case-book, amongst which were many with the diarrhoea in question. Simultaneously I have seen many cases also of summer cholera in children, but there was no Asiatic cholera in the country at the time. The fact is, that whilst many of the above-mentioned cases, from the form of fever and character of the pains, were evidently rheumatic, others—partly by the simultaneous serous vomiting, low tem-

perature, piercing cries, and such movements as though they suffered from spasms in the legs—approached more or less completely the form of cholera.

The question arises,—Are such cases rheumatism of the spinal cord? I dare not answer. The fact is, that in many of these cases the belly, between one evacuation and another, resists moderate pressure; and blisters on the belly prove little efficacious. In some fatal cases of acute whitish diarrhoea, with high fever in the commencement, a slower course of exhaustion took place—a transition into what I called (in the 13th and 14th Lectures,) the secondary asthenic stage of fever, but with a longer course—above a week, or even two or three; and in these we find here and there, besides various accidental complications, congestions, or partial inflammations of the serous or mucous coats, follicular erosions and swelling of the mesenteric glands, but nothing characteristic of the rheumatic origin and nature of the disease, nor of any other.

As soon as I perceive abundant whitish motions, in a menacing degree, no fever deters me from applying a large mustard poultice on the belly, and after its removal then to the back, about the dorsal part of the spine. The condition of the skin in this form of fever even requires its being irritated, the more so in proportion to its lower temperature. On both legs I order hot linseed poultices, with or without the addition of $\frac{1}{8}$ to $\frac{1}{12}$ part of mustard powder, to promote energetically active perspiration, after the manner of the French physicians. Internally, every three hours, from $\frac{1}{6}$ to $\frac{1}{12}$ of a grain of calomel, and if there be salient pain and the head not too heavy, or oppressed, from $\frac{1}{12}$ to $\frac{1}{4}$ of a grain of Dover's powder, each dose of it. If the stools become more and more greenish, this I generally found to be a good sign, but alone it is seldom enough, if at the same time we do not succeed in procuring perspiration. The affected children are very thirsty, and they want liquid food. Besides the milk of the breast, of which not too much ought to be given at once, or in elder ones only, a very thin tepid decoction of rice, is the best beverage for these cases.

To promote perspiration by internal remedies, can only be attempted within the first day or two. Dover's powders must at once be left off as soon as we see the belly become more tense and the child restless, throwing its head and hand from one spot to the other. Amongst the sudorifics (besides Dover's powder) I can only recommend a light infusion of lime-tree flowers. There is often an excessive intolerance of both the stomach and the blood-vessels for every medicine. This we must have regard to more than ever in these cases of children's practice, and be studious at the same time to supply by external means.

I beg to remind you of what I said of sponging in the asthenic stage (Lecture XIII.) Besides that, I have to remark, that in cases of the well-characterized rice-water diarrhoea, approaching cholera in its appearance, I have had some good results from energetical blistering along the spine, and rubbing vigorously the whole anterior surface of the body with a mixture of three

parts of water and one of diluted hydrochloric acid, until the skin becomes reddened; after which the child must be covered well over, and the mentioned sudorific leg poultices, and similar means upon the belly, may be applied, to draw away the morbid irritation from within, and promote a beneficial cutaneous crisis.

The complication of peritoneal rheumatism I did not notice with this form. In the majority of cases the tension and pain under pressure of the belly, are less than in the sero-bilious diarrhoea. The belly may even be soft for a while after the evacuation; but this does not exclude severe attacks of pain.

In general these are severe and serious instances of practice. The day before we saw the child restless, the pulse about 150 to 160, the skin hot, each discharge preceded by vehement expression of pain, whitish, but with a green or yellow hue; now it lies quietly on its back, the pulse 180 or more, the temperature lower, the countenance pale and sunken, the oculozygomatic imprinted, and the eyes dull-looking, as if it were affection of the brain; the expression of pain before the motions becomes less, but languid moaning more continuous, accompanied by occasional languid movements of the head and limbs; the quality of the stools changes; it is now of uncoloured serosity, or brownish and exceedingly offensive; the belly less tense than at the commencement. The child presents an alarming aspect. The parents are ready to try everything; but very few remedies can be even tried without damage; though the majority of practitioners yield but too easily to the temptation of multiplied applications. *Complications* seldom do occur in this form.

Under whatever circumstances, and upon whatever ground, profuse white serous diarrhoea may depend, it increases continually the over-carbonization of blood, and not seldom beyond the control of science.

Injections themselves, such as are intended to appease, are frequently but an irritating agency; and internal remedies of any kind may augment the disturbance. I have seen but few children recover from this state; and even in these it was more by external than internal treatment. Minute doses of calomel, if they effect no favourable change within a day or two, their continuance is but a nuisance.

As to the rheumatic character of the form in question, though in the beginning it may have been clearly expressed by the mentioned form and type of fever and abdominal pains, if the serous diarrhoea be profuse, even articular rheumatism or swelling, when present at first, will soon vanish.

The bilio-serous diarrhoea is by far more manageable than this, and has in many instances even a beneficial effect upon the rheumatic fever; when it becomes dangerous, in general it is when it assumes, more or less, the whitish aspect, or some other troublesome colour.

The *brownish serous diarrhoea*, dirty-looking, and of an intense ammoniacal smell, or other badly-coloured liquids, do not commonly appear with the onset of rheumatic fever in children, but rather make their appearance during its course.

Yellow diarrhoea, *i. e.*, more abundant serosity mixed with the usual excrements of infants, though occasionally connected with febrile abdominal rheumatism, is in general not serious, and more manageable than any other. If too abundant, say five or six times a day, and assuming more the sero-mucous or sero-bilious aspect, it may be checked, more or less gradually, according to the degree of fever or rheumatism connected with it, by warm poultices, or sinapisms and Dover's powder. The decoction of *jalep*, more active than warm rice-water, and a real benefit in the obvious catarrhal diarrhoea of children, is little efficacious in the greenish or whitish forms, but will be found useful in the yellow.

Catarrhal diarrhoea, a discharge of almost pure mucosity, more or less united with the yellowish elements, does not frequently complicate intestinal rheumatism, except when this passes into inflammation, when the serum becomes less, and thick mucus appears in the stools, with more or less simple catarrhal diarrhoea, and is by far less connected with pain than the sero-bilious.

Peritoneal rheumatism, of which I forgot to make mention in the last lecture, in its fixed form has about the same objective symptoms in a child as intestinal rheumatism; it acts also upon the intestinal secretion, and produces sero-bilious diarrhoea. I have not been able to discover any other diagnostical distinctions than this. In fixed peritoneal rheumatism the tension of the belly is more conspicuous and continued, and pressure by far less tolerated. Intestinal rheumatism may occasionally be connected with it; but it seems to me impossible to point out diagnostical signs for this case; nor is there great practical interest in the distinction. The treatment is entirely the same as that which I mentioned for the sero-bilious diarrhoea.

A moderate degree of peritoneal rheumatism is scarcely distinguishable from the intestinal; the inflammatory, on the contrary, is more easily recognized, by the more palpable degree of tension, superficial tenderness, and heat. The treatment is obvious:—leeches, the strong mercurial ointment, poultices, minute doses of calomel, and moderate ones of Dover's powders, form the whole therapeutical measures.

I will now briefly recapitulate the treatment of recent acute and febrile abdominal rheumatism connected herewith. First, in mild cases, the internal treatment ought to be either omitted or confined to some moderate doses of Dover's powder, with jalap, and hot poultices on the belly.

The management of the bilious, sero-bilious, or white (in connexion with fever), has been minutely indicated. I cannot repress the repeated caution against the use of many remedies, almost promiscuously and at random applied in diarrhoea of children.

In any kind of febrile rheumatic diarrhoea, I know only of two *directly* useful substances—opium and calomel. The latter being useful in the serous diarrhoea, with *retention* of the bilious elements, *i. e.*, in the whitish serous evacuations, is not available in the opposite condition,—in serosity overcharged with bile.

And in this point the superficiality with calomel is obvious. It is indicated in every form, the most opposite. It is the most flexible remedy. Sir Astley Cooper, whose memory stands high in my estimation, used to say of it, it "regulates" the abdominal secretions and functions. In the present day, I believe, such ideas and expressions are too vague, and in opposition to the consciousness of our *non scire*, and the established spirit of modern inquiry, as to be admissible any more.

The emetic and castor-oil act indirectly, but in appropriate cases (biliosity) efficaciously, against the diarrhoea. I have mentioned their indications, as well as of leeches, poultices, and other external means.

Great mischief, of every day's occurrence in children's practice, is done, in rheumatic diarrhoea, by a number of other remedies. If opium does not soothe, then follows the chalk mixture, or even calumbo, with or without magnesia, and the like. Some of these remedies may be useful in some stages of the catarrhal diarrhoea, but none of them is good in the forms in question. A great principle it is when we treat intestinal rheumatism by opiates to act, at the same time, by every possible means upon the skin.

There are cases not uncommonly met with which improve merely by external treatment after all internal attempts have failed, or been injurious. In spite of the difficulties in diarrhoea of children, by close investigation it is possible to find out the real indications. Biliosity, active or passive congestion in the liver, irritation of its serous coat, and serous mucous inflammations, are the most obvious conditions, and most important to be found out.

I feel the great imperfection of what I have exposed, or attempted to illustrate to-day. I have been severed too soon from a fertile field for inquiry. I shall receive, however, with thanks, every correction of my views. Diarrhoea of children in general is not treated of as it ought to be in works however valuable; and in practice treated superficially. This, nobody will deny: therefore I thought I ought to devote proportionally more time and care to this than to other subjects minutely and laudably exposed in contemporary works. I have—unitedly with my distinguished subordinates—in the Children's Hospital of Pesth, paid great attention to the *clinical* observation of diarrhoea in children, but how far have we been from a satisfactory degree of knowledge of so obvious a derangement, and so dangerous in infancy; I should feel happy, therefore, if my observations answered the mere purpose of giving an impulse here and there to further *practical* inquiry in that direction. Certainly the treatment of diarrhoea in children is of great consequence to human life and professional honour. Next, on some special relations between acute rheumatic fever and diarrhoea in the tender age.