OBSERVATIONS
ON THE
SCROFULOUS INFLAMMATION
OF THE
PERITONŒUM
OCCURRING IN CHILDREN,
AND
FREQUENTLY DENOMINATED MARASMUS.

By GEORGE GREGORY, M.D.

SENIOR PHYSICIAN OF THE ST. GEORGE'S AND ST. JAMES'S DISPENSARY.

Read June 20, 1820.

THE terms marasmus, infantile remittent fever, and diseased mesenteric glands, have long been employed to designate a disease of the abdominal cavity to which children are subject; but if I may judge from the writings of those authors which I have consulted, they are used very indiscriminately, and without attaching to each any precise idea of the pathological nature of the affection to which it is applied. The confusion and inaccuracy which have consequently crept into our views of the abdominal diseases of children, appear to me to

have been productive of much inconvenience. Our prognostics in particular, have been vague, and often incorrect, and a loose mode of reasoning concerning their proper treatment has been adopted, wholly different from that strict and scientific accuracy which now so very generally pervades the views of the physician in the management of disease. To supply in some respect this deficiency, by pointing out the different varieties of abdominal diseases which occur in children, and attempting to discriminate their symptoms, is the object of the present paper. On the treatment of these affections, I regret to say that I have little to offer worthy of the notice of the Society ; but, believing that accurate pathological views of disease are the only sure basis upon which our treatment can be founded, I am not without my hopes that the following observations may ultimately lead to some improvements in practice.

Dr. Pemberton, in his excellent treatise on the diseases of the abdominal viscera, writes at some length, of the infantile remitting fever, and of the disease of the mesenteric glands. As this, to the best of my judgment, is the work of most repute on those affections which form the subject of the present essay, it may be proper briefly to recapitulate the ideas of this author concerning their pathology. The disease which, in common with most writers, Dr. Pemberton calls infantile remitting fever, and which, in many of its symptoms, he

states to bear a close resemblance to hydrocephalus internus, he believes to depend upon "irritation on the intestines, and partly perhaps upon the absorption of their putrid contents." He informs us, that he was present at the examination of a child of four years old, who died of this complaint. The belly was swelled to a very large size, but there was not the least appearance of inflammation on the peritonæum, or upon any of the viscera of the abdomen, or any fluid in the cavity. The mesenteric glands were, in a small degree, enlarged. The intestines were distended to an enormous size, so that the colon measured seven inches in circumference, and all the other intestines were, in like manner, greatly distended. The liver, pancreas, spleen and kidneys were natural.

When treating of the disease of the mesenteric glands in children, Dr. Pemberton is at pains to distinguish it from acute and chronic peritonitis, and from the infantile remittent fever. He considers the disease to consist in a very gradual change of the structure of the glands, and, though it is nowhere distinctly avowed, yet it is obvious that he looks upon this affection as one of the forms of scrofula.

Dr. Baillie, in his morbid anatomy, describes a scrofulous enlargement and ulceration of the mesenteric glands, which, he says, is more apt to occur in children than in persons of a more advanced

age, and he states the symptoms to correspond very much with those produced by the common round worm of the intestines. This comprizes the substance of the information which I have been able to procure from these accurate authors, regarding the pathology of the abdominal diseases of children. For some time past, I have directed my attention to this subject, and the result of my observations I shall now detail.

I think I have been able to distinguish three different states of abdominal disease in children, which have, as a common character, fever of a slow remitting kind, and a general wasting of the body. The first of these consists in simple disturbance of the functions of the intestinal canal without organic derangement, or to use the words of Dr. Pemberton, in "irritation on the intestines." The account of a dissection which I quoted from the work of that author, points out that this state of disease may prove fatal without inducing inflammation or ulceration within the abdominal cavity, but it will readily be admitted that this is not common.

. In a fatal case of this kind which I lately examined, I was struck with the uncommon emptiness of the whole tract of intestines. It seemed probable that the marasmus was here owing to the rapidity with which the food was hurried through the bowels. The evacuations in this case were very frequent, and *always slimy*. This form of marasmus is, however, the most under our controul, and

I have reason to believe that a large proportion of the cases which are cured, are of this kind.

The second form of marasmus is that in which the mucous membrane of the bowels is extensively implicated. After death, ulcerations both of the great and small intestines are observed with more or less enlargement of the mesenteric glands, and sometimes, though rarely, ulceration of them. I presume that, in many cases, this form of the disease is merely the second stage of that which we have already described, but as the former will sometimes prove fatal without inducing this latter affection, so, in like manner, it is possible that inflammation of the mucous membrane of the bowels, may, in children, be sometimes the primary disease. A considerable number of these cases, perhaps even the larger proportion of them, end fatally, but I have seen some recover where I had every reason to believe that this state of the intestinal canal existed.

The third form of marasmus is that to which it is my intention, in this paper, more particularly to allude. The observations which I have made upon it induce me to think that it is primarily a disease of the peritonæum; and it differs from both the others in the circumstance of its being completely beyond the control of medicine. The symptoms and progress of this disease, and the appearances found on dissection, will be noticed presently; but I wish first to explain why it is that in my views of the pathology of marasmus, I have

omitted any particular notice of the mesenteric glands. I have done so, not because I distrust the observations of those authors who have spoken of such a disease, but first, because in the various dissections which I have made with the hope of elucidating this subject, I have never once met with any disease of the mesenteric glands which was not complicated with, and probably referable to a diseased state of the mucous or serous membrane of the abdomen; and secondly, because in many of those cases which were seen by other practitioners, and denominated disease of the mesenteric glands, I had an opportunity of proving, by dissection, that those glands were only slightly affected, so as to be scarcely noticed in comparison with the extent of disease present in one or other, or both of those membranes.

From the circumstance of the inflammatory affection of the peritonæum to which I now refer, being usually met with in children of a scrofulous habit, and from its going on to the formation of a thick and imperfect kind of pus, I have called it the scrofulous inflammation of the peritonæum, and I now proceed to detail its symptoms and progress.

The distinguishing feature of this form of marasmus is the occurrence, from the very first, of tenderness of the abdomen, soon followed by occasional shooting or lancinating pains. The tenderness of the abdomen increases gradually, until at

last, the slightest touch of the hand makes the child cry. The attacks of acute pain occur in paroxysms, at first perhaps not oftener than once or twice a day; but as the disease advances they increase in frequency, and at the same time in violence. I have seen them happen as often as once in ten or fifteen minutes. They do not last long, and immediately after an attack the child appears lively, and as if nothing ailed it. The attacks of pain are at first confined to one part of the abdomen, but by degrees they extend over the whole belly, sides and back. The abdomen is at first swelled as well as tense, but in the progress of the disease the swelling commonly abates, and is seldom upon dissection perceptible to any great degree.

The pulse is always above the natural standard, generally about 100, with a considerable degree of strength and fullness. This character it will often retain until a very late period of the disease. The tongue is for the most part clean during the whole course of the disease. The appetite is irregular, but generally good, and frequently voracious. The child indeed complains of a feeling of fullness, upon eating even a very small quantity of food, and on this account he eats frequently, and but very little at a time. There is generally a good deal of thirst present. The bowels, if left to themselves, will commonly be found to act, but the appearance of the evacuations is that, which of all the symptoms most strikingly characterizes the disease. At first perhaps

they are green, or slimy, or fetid, but when the disease has existed about six weeks or two months, the stools will be found to consist of a whitish, or whitish brown matter, of the consistence of a thin pudding. Nor do the evacuations differ more in quality than they do in *quantity*, from those in health. The quantity passed by the child in 24 hours, and that without the aid of medicine, is often enormous, and I have seen it taken notice of by the parents, as greatly exceeding what the child could have taken in by the mouth. In this they were probably right, and the source of this great discharge from the bowels I shall presently allude to. This state of the bowels frequently continues for six weeks or two months, the body of course wasting the whole time, until diarrhoea at length comes on, attended with petechiæ, which in the course of three or four days puts a period to the child's life. In the course of the disease the head never suffers, so far as I have seen. A cough and shortness of breath are occasionally met with. Very little water is made, and that very often with extreme difficulty. Deceitful remissions of all the symptoms will occasionally take place, which before I was better acquainted with the disease, inclined me to believe that I had produced some effect upon it, but I soon detected my error. The usual duration of the disease is from four to five months. The child is often not confined wholly to its bed, until the last month.

These are the most important diagnostic marks of the disease, that I have been able to trace. The appearances found upon dissection will next require notice.

On cutting through the parietes of the abdomen, all trace of abdominal cavity will be wanting. The mesentery, bowels, and peritonœum, lining the parietes, will be found united together into one mass. The peritonœum, in all its duplicatures, appears thickened, and on cutting through the diseased mass, very large quantities of scrofulous matter will be found. The mucous membrane of the bowels, particularly the small intestines, appears ulcerated in various places, and at these points of ulceration the convolutions of the intestines communicate, so that instead of forming one line of canal, as they will continue to do even in advanced stages of common chronic peritonitis, they constitute a mass of tubes communicating freely with each other, and with the thickened and ulcerated peritonœal membrane, by innumerable openings. The matter, which will be found both within and without the mucous membrane, will be observed to correspond exactly with that which was passed during life by stool.

I consider myself warranted in looking upon this as primarily a disease of the peritonœal membrane, because in the first place, the early symp-

toms of the disease are those of peritonœal inflammation : secondly, because the tongue, appetite, and functions of the bowels are not sensibly affected, until a period of the disease, when we may reasonably conclude that in the progress of ulceration, those communications between the membranous linings of the intestines have formed, which appear to characterize this affection : thirdly, because on dissection the peritonœum is found so universally diseased, the portions of it lining the liver and diaphragm being as much involved in the disease, as those which form the mesentery. In one instance only have I observed the affection to be limited to particular portions of the peritonœum, and there the mesentery, mesocolon and the lining of the bladder and pelvis, were the parts principally occupied by the disease.

It appears reasonable to conclude, that the subsidence of that swelling, which generally accompanies the tenderness of the abdomen in the early stages of this affection, is owing to the evacuation by the bowels of the matter, which had been formed by the thickened and inflamed membrane ; and of course to the same cause we are to attribute the enormous *quantity* of the evacuations, and the wasting which goes on, though the appetite continues good.

I have never been able satisfactorily to trace the causes of this disease. I have no reason to think

that it arises, like many of the other forms of marasmus, from errors in diet ; nor have I succeeded in tracing it to cold. Its causes, therefore, like those of the chronic peritonæal inflammation of adults, are altogether unknown. In one instance I observed it to succeed pneumonia terminating favorably by abscess.

The practice which I have adopted in this disease has consisted in the application of leeches and fomentations, during the first stages, and afterwards in the employment of purgatives, mercurial alteratives, tonics, chalybeates and absorbents; but as I never could persuade myself that I had produced any real impression upon the disease, it would be unnecessary to enter into any *detail* of the treatment. When the attacks of pain become very violent, as they will always do in the latter periods of the disease, laudanum affords the only relief which it is in our power to afford, and I have not observed, that laudanum, even in the large doses in which I have been obliged to order it, has constipated the bowels.

It remains to enquire in what manner this form of marasmus may be distinguished from the others, of which I have made mention. I consider that the excessive tenderness of the abdomen during the whole course of the disease, the paroxysms of acute lancinating pain, and after a certain time the evacuation by stool of very large quantities of a thick white

matter, wholly different from the usual appearance of fæces, are sufficient to distinguish the scrofulous inflammation of the peritonœum from every other form of marasmus. I have not yet so far satisfied myself with regard to the symptoms, progress, and morbid appearances of the inflammation of the mucous membrane of the bowels occurring in children, as to describe its peculiar character, but I may mention that this form of marasmus differs from the preceding, in being much more rapid in its course, proving fatal sometimes in the course of three weeks or a month. I have reason to believe that it is this form of marasmus which is most liable to be confounded with hydrocephalus internus. I have seen several cases which counterfeited very closely the symptoms of that disorder, where, upon dissection, no morbid appearances were observed in the head, but in the abdomen were extensive ulcerations of the mucous coat of the intestines, with considerable increased thickness of the mesenteric glands, probably referable to the diseased state of the mucous membrane. The origin and diagnosis of hydrocephalus, however, being a subject of great interest and importance, I propose, on some future occasion, to offer to the Society some observations concerning it, and shall reserve, therefore, until that time, what I have further to say, regarding the different forms of the marasmus of children.