A Clinical Lecture

ON

TWO CASES OF PERITYPHLITIS

(COMMONLY CALLED APPENDICITIS),

Delivered at the Aberdeen Royal Infirmary.

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ALTHOUGH it is quite true that appendicitis, so called, is not a new disease, the impression that it is more frequently met with than it used to be—say twenty years ago—is probably a correct one; and it is certain that more is now known about it, and hence that its treatment is more successful.

The name has always seemed to me objectionable, partly because it is badly compounded (which, however, is not perhaps of great importance, although in nomenclature we are going steadily from bad to worse), and partly because it assumes too much.

Probably the increasing frequency with which acute troubles in the caecal region are dealt with surgically, and the demonstration thereby afforded that diseased conditions of the appendix are, in the great majority of cases, at the root of those troubles, has led to the coining of a new name. But many cases of inflammation in the right iliac fossa occur in which we have no proof that the appendix is at fault, however much we may suspect it; and in some others, even after operation for the evacuation of pus, the complicity of the appendix is only a matter of strong inference.

These points have their illustration in the following cases, to which the name "perityphlitis" seems to me the most appropriate.

CASE I.

F. D., aged 39, a labourer, was admitted on September 7th, 1899. Three days before admission he was attacked by sharp pain in the lower part of the abdomen on the right side, on account of which he had to give up work and take to bed. On the following day he was seen by a medical man, who ordered fomentations to the seat of pain and a milk diet. He had no thirst then, or sickness; and his bowels, which acted slightly on the first day of his illness, had not moved since.

On admission, his temperature was 100° F., pulse 94, respirations 28. He lay on his back in bed with the right leg drawn up, although not continuously. He complained of but little discomfort, but his tongue was rather dry, and showed a thick yellowish-white coating with a brownish strip down the centre, the tip and edges being pretty clean. Tenderness on palpation in the right iliac region was present, and here there was a distinct swelling which was dull to percussion; there was no general abdominal distension. Urine was clear and dark-coloured, with a specific gravity of 1023, strongly acid, and free from abnormal constituents.

He was ordered liquid diet, with hot fomentations to the region of the caecum over an application on lint of an ointment consisting of equal parts of extract of belladonna and glycerine; barley water and ice for thirst, and half a grain of extract of opium in pill every four hours. Three days later there was no pain or tenderness; the tongue was still coated, but it had lost its brownish strip. Slight fullness remained over the caecal region, but no swelling was felt on light palpation, and the percussion note was resonant. Temperature was normal, and the bowels were still confined. An enema of olive oil, to be followed in two hours by a simple enema, was ordered for the next morning. On deep pressure there could be felt a tolerably firm, somewhat nodular mass, probably mainly faecal, which was not tender to touch. The bowels acted well after the enema above referred to, the motion being merely of a constipated kind. The tongue was still considerably coated. On September 13th the temperature was 96.8° F., the third day of a subnormal range; pulse 68, respiration 20. The patient now expressed himself as well and comfortable; the bowels acted freely, and the urine gave a well-marked reaction for indican. On the 15th he was ordered custard pudding; pain, tenderness, and swelling being all gone. The opium was reduced to one pill night and morning. On the 16th these also were discontinued, and the urine was found to be free from indican. His condition continued steadily to improve, the appetite being good and the tongue moist and clean. Constipation was the only matter now requiring treatment, and this readily gave way to an occasional simple enema. He was discharged convalescent on September 29th, just three weeks after admission.

CASE II.

D. C., a boy aged 14, employed as a billiard marker, was admitted into the Aberdeen Royal Infirmary on December 11th, 1899, complaining of pain in the abdomen, located chiefly in the right iliac region. His family history was unimportant, as also his previous history. As regards present illness he stated that he was playing in the street with some companions eight days before admission, that he fell in the course of their horse-play, with his abdomen resting against the kerbstone, and that while so placed one of his companions fell upon him. He felt no pain then, and continued quite well for a couple of days (that is, until December 5th), when towards evening he complained of pain in the lower part of the abdomen. Next morning the pain was worse, he felt sick, and

vomited several times, and his appetite was gone. On the two following days pills were administered to him, which produced loose motions, and he remained pained and thirsty. Next day (December 9th) some improvement was noted, the pain being less troublesome; he was able to take a little food, and he got up. But later in the day he had a return of the pain, and he went back to bed. He had a restless night, and felt sick, but he did not vomit either then or during the following day (December 10th), when he was seen at his own home by the house-physician. He then complained much of pain and tenderness over the right side of the abdomen generally, but especially in the iliac region. He felt sick, and vomited some watery bile-stained fluid, and he stated that he was troubled with frequent calls to pass water, together with difficulty in passing it.

On admission half an hour later his temperature was found to be 100.4° F., pulse 104, respirations 40. He was observed to be a rather sparsely nourished boy lying on his back or slightly inclined to the right with his legs drawn up, his face flushed, and with an expression of pain. Skin and lips were dry; tongue also dry and coated with a thin whitish fur on the dorsum. The abdomen, which was somewhat distended and everywhere tympanitic, showed very slight movement on respiration. The distension was chiefly marked over the lower and the right iliac portions of the abdomen, where there was also, in addition to the pain and tenderness before referred to, some sense of fullness and resistance on palpation. The lower border of hepatic dullness was found about a fingerbreadth above the costal margin in the nipple line. There was nothing calling for remark in the respiratory or circulatory systems; and the urine, which had a specific gravity of 1024, acid reaction, and turbidity due to lithates, showed the presence of indican. The treatment ordered at this stage consisted of ten-minim doses of tincture of opium to be repeated as might be necessary, hot fomentations to the lower part of the abdomen, liquid diet (milk and beef tea) and two ounces of port wine. Next day, on account of vomiting he was ordered nutrient enemata. On the following morning it was noted that he had passed a rather restless night and had vomited twice. The abdomen was somewhat more distended and the pain rather less. On the whole he both looked and felt more comfortable. Temperature was 98° F., pulse 110 regular and of fair strength, respirations 33. There was now marked fullness in the right iliac iliac region, with impairment of resonance.

As it was obvious that surgical treatment would be required, the patient was transferred to the care of my colleague Dr. Scott Riddell, who operated on the following afternoon. A considerable abscess, shut off by adhesions from the general peritoneal cavity, was found in the neighbourhood of the caecum and appendix. Owing to the matting of adhesions the appendix could not be found. A quantity of very foul-smelling pus was evacuated, the cavity being then irrigated and drained by a large drainage tube passed deeply down into the pelvis. The lad's temperature after this was occasionally slightly raised during about a fortnight. Subsequently it remained practically normal, his convalescence was uninterrupted and he was discharged completely recovered in about seven weeks.

From the clinical point of view three classes of cases of perityphlitis appear to me to stand out prominently. Typical examples of two of these are found in the instances above narrated. No. 1 belongs to the class which prompts one to doubt whether the appendix is at fault, at least in the first instance, if at all. Adults are often the subjects; treatment by rest, careful dieting, and opium with hot fomentations seems to be all that is needed to bring about complete convalescence, the bowels being unloaded by enemata after the temperature has come down to the normal point. With attention to dieting for a prolonged period relapses are uncommon.

The class illustrated by Case II is more commonly met with in younger patients. I am inclined to think that the appendix is almost always the offending part here, although in many such the absolute proof is wanting. I can recall a similar case which was under my care several years ago where the usual symptoms, localised in the caecal region, were present, and where convalescence seemed to have been well established under the ordinary medicinal treatment. After a short period of convalescence, however, temperature again rose, and examination of the right iliac region enabled one to make out a return of swelling followed by fluctuation. The abscess which had formed was evacuated, and the appendix was found to be perforated, with its tip gangrenous. The removal of the appendix and the purulent collection resulted in complete recovery. The third variety of case is really a modification of Class II, in which, owing to the absence of limiting adhesions because a sudden perforation of the appendix has taken place, intense septic peritonitis is set up, which speedily extends to the whole peritoneal coat, and the duration of the patient's life, if he is not surgically treated, is then measured by hours. Young adolescents, particularly males, are the most frequent sufferers from this, which is often called the "fulminating" variety. I have seen no case of this kind recently to notes of which I might refer, but unfortunately such are not very uncommon in the experience of the general practitioner.

Detailed questions of pathology do not come within the scope of my present purpose, but it is remarkable in how many cases a faecal concretion is the cause of perforation of the appendix. A limited statistical inquiry which I made

some years ago showed its presence in 75 per cent. of the cases; and in many cases in which no concretion is found it is not unreasonable to suppose that it has become broken down in the collection of purulent fluid which has been formed, or has somehow escaped notice.

The etiological factors are still largely matters of conjecture, and so comparatively unimportant. The too keen cultivation of cycling and various forms of athletics; hurried bolting of food without sufficient mastication; and, what is much the same thing—deficient power of mastication owing to bad teeth, are all suggested as contributory causes; and it is impossible to say they are not. But as to the last mentioned it may be remarked that it would be odd if it had much to do with the question, as the disease is most apt to attack that class of the community which, as a rule, can boast of good teeth. One suggestive point, however, is that the perforative variety not infrequently follows immediately upon some exertion which puts a strain upon the abdominal muscles; and this brings it into line with what is often observed in the comparable case of perforation of a gastric ulcer.

But what is of paramount importance is the early recognition and prompt surgical dealing with the fulminating cases, if the patient is not to be allowed to succumb without an effort being made to save him. The other varieties referred to are not urgent—they can afford to wait until you have time to think all round them.

The points for diagnosis, as regards Classes I and II, come out in the cases above recorded. Regarding Class III (the "fulminating" variety), the most striking fact in typical cases is the extreme suddenness of onset. Together with this there is sharp abdominal pain, with tenderness and rigidity of abdominal muscles, also nausea or vomiting, and probably collapse. The pain may be localised to the region of the mischief, or it may not. Indeed, it must be said that pain as a means of localising abdominal disease is unreliable and sometimes deceptive. I have known of a case of disease of the appendix in which the pain was situated in the left iliac region—not in the right.

It has always struck me as regards diseases affecting the hollow viscera of the abdomen, more than in the case of diseases elsewhere in the body, that one seldom sees two cases of what must be called the same disease precisely alike. Perityphlitis is no exception; and I should like to refer here to a case which was in one of my wards a few years ago which illustrates the difficulties sometimes besetting the diagnosis, and also presents a point in the symptomatology which it may be helpful to keep in mind. It was that of a lad, aged 16, a painter by occupation, who had felt "out of sorts" three weeks before admission, and had complained of nausea and vomiting, with pain in the right iliac region; diarrhoea also had been present. He stated that near the window of his room at home there was the open trap of a sewer, from which foul smells emanated. He took to bed a fortnight before admission, and there was a suggestion of enteric fever up to this point. On admission the abdomen was not distended, but was somewhat rigid, generally tender, especially so, however, in the right iliac region and along the line of the ascending colon. There was some tenderness later in the right lumbar region (and it is to this point that I wish to direct special attention), but nothing abnormal could be felt either here or in front. On the day after admission he had a rigor, with rise of temperature to 104° 8', and similar rigors were repeated during several days, generally followed by sweating. The urine showed Ehrlich's reaction. He complained subsequently of pain in the epigastrium, right hypochondrium, and right shoulder, which he described as sharp and cutting, aggravated also by deep inspiration. The abdomen gradually became more full and tympanitic, and the liver dullness was found 2 inches below the costal margin. As it was evident that the patient was suffering from pyaemia from some unknown source, the probability, however, being that this would be found in the neighbourhood of the appendix, it was decided to have an exploratory operation performed. This was accordingly done, but nothing abnormal was detected either in the colon, caecum, or region of the appendix. The liver came about three inches below the costal margin, but the organ otherwise seemed and felt normal. He did not rally from the operation, and died the following day. On *post-mortem* examination an abscess cavity containing several ounces of

greenish-coloured pus with a faecal odour was found, extending from the caecum to the right kidney. The appendix, which was turned up behind the caecum with its tip perforated, was lying in the abscess cavity. The liver on section showed several pyaemic abscesses.

A case of this sort is especially instructive as showing that even with an exploration by the surgeon the source of the trouble may not be found owing to the unusual position occupied by the appendix. But the lumbar pain and tenderness which were complained of constituted a suggestion of disease behind the caecum, to which sufficient importance was not attached when the symptomatology was considered.

Speaking generally of the more acute cases, if positive indications are wanting, I think you may conclude in nine cases out of ten for appendix trouble, at all events in the case of a boy of school age showing the general symptoms, when you can exclude injury and tubercle. And, by the way, it would be an interesting matter to speculate about in regard to my second case how far the abdominal injury had anything to do with his perityphlitic abscess. The knock which he got against the kerbstone would not have been likely of itself to have caused his trouble, but it may have been the determining factor which acted as "the last straw" in bringing about the abscess formation from which he ultimately suffered.

Concerning treatment, it may be said that cases belonging to Class I practically invariably recover under the method of treatment already described, and no operation seems either called for or justifiable. The necessity for operation in Class II is equally clear. Nature herself shows us that by efforts at spontaneous cure, in the pointing and discharge of pus either externally or into one of the hollow viscera; and, as to Class III, the propriety of operative interference is unquestionable. But even in these there is a time to operate and a time to refrain from operating. Other things must be considered besides the local conditions. Of these the most important, I think, are the state of the pulse and of the tongue, the amount of abdominal distension, and the presence of vomiting. We have all seen, or can imagine, cases where, having regard to these points, operation will not prolong but only shorten life, and tend to bring the use of surgical measures into disrepute.

Another difficult question to decide is what advice we are to give in the relapsing cases? Here I am on the side of the surgeons, most of whom, I think, are content to operate when one relapse has occurred (at least, if it be a serious one), after the relapse has passed off.

In connection with treatment I should like to add that in the simple class of cases, where there is much pain, the application of two or three leeches over the swelling may often give great relief. But whatever you do or forbear from doing, I would advise you never to have recourse to purgatives. It is quite true that men whose opinions are entitled to respect have recommended their employment, but I should prefer not to be treated in that way myself. Opium, not pushed too far, seems to me to be about the only useful drug in such cases as we have been considering, on account of its power to alleviate pain and check peristalsis of the bowels.

The matter of prognosis has been inferentially dealt with already. Put in the briefest form, I should say that cases of the first class to which I have referred always recover; those of the second class generally recover with operation unless the pus has broken through its adhesive bounds and infected the general peritoneal cavity, and those of the third class never recover without operation, and often not even then, owing largely to delay in summoning the surgeon.

A CENTENARIAN PRACTITIONER.—Dr. John Wood, believed to be the oldest practising physician in the world, according to the *New York Medical Record* celebrated his one hundred and first birthday at Coffeyville, Kansas, on January 4th. When Kansas was admitted into Statehood he was a United States Commissioner, and the famous John Brown was twice brought before him, once charged with murder and once with harbouring fugitive slaves.

ALLEGED MALADMINISTRATION AT MOLOKAI.—According to *American Medicine* the lepers at Molokai have brought against the Hawaiian Board of Health a charge of neglect and misdeemeanors in relation to their supply of food and water, and have asked for an investigation by a State Commission.