Remarks

ON

APPENDICITIS AND ITS TREATMENT.

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THE classification of cases of appendicitis according to pathology gives us an infinite variety, such as catarrhal, purulent, ulcerative, infective, gangrenous, etc., but clinically, although these varieties may be to a certain extent identified, and in the future their identification will probably be of great value and importance, yet at present to my mind, a much simpler classification will be of more practical value, not based on the pathology of the disease but on its clinical features. For our purpose we may thus classify:

1. Simple acute appendicitis.
2. Fulminating appendicitis.
3. Chronic appendicitis.

I do not purpose saying anything about cases due to tubercle or malignant disease. They are not very common, and just now simply require recognition.

1. Simple Acute Appendicitis.

The important symptoms of this condition are: Pain, tenderness and rigidity. The pain often follows some error in diet, is usually at first referred to the umbilical region, less frequently to the epigastric region, but after a short time is generally confined to the right iliac fossa. At first it is paroxysmal in character, but when it becomes located in the iliac fossa it to a great extent loses its paroxysmal character and becomes constant. In many cases the pain radiates from the fossa in almost any direction, still, however, being most intense over the appendix. In a small number of cases the pain may be absent in the fossa, and present itself towards the right loin, towards the middle line from the umbilicus to the pubes. The onset of the pain is frequently absolutely sudden, coming on with an entire absence of any premonitory symptoms. The tenderness is one of the most characteristic features; it, in a typical case, is absolutely at McBurney's point. There is usually slight tenderness, more or less widely spread over the abdomen, but its concentration midway between the anterior superior spine and the umbilicus is most noticeable. The rigidity is confined to the lower right quadrant of the abdomen; this rigidity is one of the distinguishing marks between appendicitis and inflammatory trouble in the pelvis; in the latter there is an absence of this rigidity.

To these three main symptoms we must add vomiting, which often occurs during the early stage of the disease, and generally subsides rapidly, but may continue, along with nausea, throughout the attack. When the onset is denoted by a sudden attack of pain, this sudden pain is usually accompanied by vomiting. Tympanites to some extent is usually present.

In many cases the hip-joint is slightly flexed and the thigh fixed. There may be an entire absence of tumour in the iliac fossa, but generally there is fullness and hardness, varying from a slight resistance to a very decided hard mass, fixed, and with tolerably well-defined limits.

Accompanying these symptoms pyrexia is almost always present; the temperature is raised, and the pulse is a little quickened. The rapidity and the character of the pulse require much more careful watching than the temperature.

Let us now consider the terminations of such an attack:

1. Absolute and complete recovery. I see no reason to doubt this, although I do not think it is very common, but I can recall to mind cases occurring years ago—then called cases of typhlitis, or perityphlitis—that I know have had no trouble since, and are now in perfect health.
2. Localised suppuration.
3. Apparent recovery, but having pain at times, or having a small swelling to be felt in the fossa.
4. Apparent recovery, but having one or more recurrences of the acute attack weeks or months afterwards.
5. A continued state of slightly-raised temperature, with tenderness, but with no other evidence of pus formation.

(The last three groups belong to the class of chronic cases.)
6. A sudden change for the worse, taking on the characters of a fulminating attack.

2. Fulminating Appendicitis.

This, as its name implies, is a violent explosion, a violent explosion of the most grave character. This outburst of violence may be the first symptom of the disease, or it may come on at any time during an attack of ordinary appendicitis, or during a recurrent attack.

The symptoms are the same as those of an ordinary acute attack, but of greater intensity, and with evidences of more profound constitutional disturbance. The initial pain is most intense, may be continuous, or it may absolutely cease. The tenderness is all over the abdomen, but more marked over the appendix. There is early tympanites, beginning in the umbilical region, and rapidly extending over the epigastric region. The face takes on an anxious expression, the skin becomes clammy, the pulse increases in frequency, becomes small and feeble; the temperature is not much guide, it may be below normal, or it may quickly rise up to 104° or 105°; vomiting is usually frequent and troublesome. The progress is rapid, going swiftly from bad to worse, and the usual termination is death.

3. Chronic Appendicitis.

In this class I should include all cases where after an acute attack there are any symptoms remaining that in any way can be referred to the appendix, such as occasional pains in the iliac fossa, accompanied or not with slight elevation of temperature; any remaining hardness in the fossa, after an acute attack, even without pain or tenderness; cases where there are occasional pains with some tenderness in the iliac fossa, but without any history of an acute attack; and especially all cases of recurrent appendicitis.

Treatment.

In an ordinary case of acute appendicitis, my opinion is that the best results are obtained by absolute and complete rest. I do not hesitate to give opium to restrain the pain and to keep the intestines quiet. Some authorities are against the giving of opium on the ground that it masks symptoms. That is not my view. The serious symptoms in such cases can be easily discovered, quite apart from the effects of the opium, and in addition to its effect in relieving the pain it has a soothing action on the nervous system which is of immense value. Unless the rectum is loaded, when I would give an enema of oil, I would leave the action of the bowels alone until all acute symptoms had subsided. As little food as possible should be given by the mouth, and rectal feeding should be especially avoided. In my opinion all interference with the rectum is bad. But what you will wish me to enter more fully into is the question of operative treatment.

In the *Transactions of the American Surgical Association for 1899*, Richardson says that from month to month and from year to year his opinions have changed on this point, and I am conscious of a tendency to change my opinions on some of these cases at the present time. I feel, at any rate, that my views and opinions require very careful consideration on my part.

There are certain cases that I think must without question be operated upon. They are:

1. *Fulminating attacks*, whether so from the beginning or becoming so during an ordinary attack. These cases, if left to themselves, are sure to die; they are very likely to die if operated on, but now and then one may be snatched from the very jaws of death. I look on these cases in the same light as I look upon a very bad case of strangulated hernia. You may save your patient by operation, you cannot save him without.

2. *Cases of chronic appendicitis* (except during an acute recurrence) should be operated on. In these cases (interval cases) the mortality is slight; and whatever else you may meet with, in the case where the appendix has been removed you will not afterwards meet with acute appendicitis. In these chronic cases an apparently healthy appendix may be found, but generally, if carefully examined, some evidence of ulceration will be seen. In the case of a lady whom I operated on, who had one or more attacks of acute trouble and since then had frequently pain in the iliac fossa, the appendix was ap-

parently perfectly healthy, but on gently passing a probe along its interior I found a place where the wall was very thin, and on opening it up found an ulcer. An appendix may be found thickened and undoubtedly inflamed; and there may be adhesions, dense or otherwise; or it may not be possible to find the appendix, but breaking down the adhesions appears to promote a cure. The appendix may lie in a localised abscess, and in such cases a minute perforation can generally be discovered, or the appendix may be gangrenous in a cavity containing pus.

Passing by, then, the cases where operation is clearly indicated, we approach the problem of operation or not during an acute attack. Up to the present time my opinion has been against operation at this time, and I have not yet changed it; but some recent cases of operation have given me cause for thought as to whether it would not be wiser to operate in such cases if the operation were done early. There was a girl in the infirmary some months ago suffering from acute appendicitis. She recovered somewhat, but not entirely; her temperature did not become normal, or, if it did, it did not remain normal. After some weeks of this slight pyrexia I operated and found no trace of pus, as I expected, but any amount of adhesions; these I broke down, but could not find the appendix. She recovered rapidly and perfectly after the operation. Would it not have been better to have operated during the acute attack in this case, when the adhesions would have been soft, easily broken down, and the appendix probably found? Now I do not feel sure that she may not have another attack at any time.

In the early part of last year I saw a young lady suffering from an ordinary attack of acute appendicitis. Instead of getting better she developed an abscess over the site of the appendix; this I opened widely, searched its interior, but could not find the appendix. I was careful not to break down any adhesions, as I did not want to infect the general peritoneal cavity. She made a good and rapid recovery; the wound closed, and she went about as usual. Six months afterwards all the old symptoms came back, and in the course of about a week a large abscess formed; this I opened through the cicatrix, giving exit to several ounces of very fetid pus. I again searched the interior of the cavity as carefully as I could, but could not trace the appendix. She has now again completely recovered, the wound remained open longer than before, but it is now soundly closed. She feels well and as strong as ever, but one can scarcely feel safe about her. Would it not have been better to have operated on her in the early days of the first attack, and removed the appendix?

A boy that I saw with Dr. Elliott and Dr. Foster of Barrow had a fulminating attack. The following are Dr. Foster's notes of the case, and it will be seen that, although he diagnosed appendicitis, there were really no symptoms that called for even a consideration of operation until the day of operation and death.

F. B., aged 12 years. October 5th, 1901. Went out after the hounds without breakfast; came in at 10 A.M., had a cup of tea and a bun. Eating almond toffee off and on all day. October 6th. Was found eating toffee in bed, sickness began, and vomited all day—green liquid. October 7th. His mother brought him to my surgery; he complained of sickness and pain in stomach. Bowels moved thrice, motions loose, containing currants and almonds. Ordered him to bed, prescribed bismuth, morphine and belladonna mixture, hot poultices, and nothing but toast-water and ice. October 8th. Vomiting continued, green liquid, bowels not moved. Temperature and pulse normal, ice and barley water given, hot poultices night and day. Diagnosis: Appendicitis, pain complained of on right side of abdomen. October 9th. Vomiting continued, temperature and pulse normal; gave soap and water enema; two soft motions, containing more almonds. October 10th. Sickness stopped, bowels moved naturally twice, still in pain, temperature and pulse normal. Morphine and belladonna continued. October 11th. No sickness, no motion, temperature and pulse normal. October 12th. No sickness, gave another enema, brought away soft motion with more almonds, pain much relieved, slept off and on all day. Vomited again at 7 P.M., no pain, no sickness, temperature normal, and pulse 60. October 13th. Pain began again during night, and sickness in early morning. Saw him at 11 A.M., in great pain; temperature 100.2°, pulse 85, the first time there had been any rise. I bled straight in to Cueseter, and brought out Dr. Elliott, who confirmed diagnosis, and we agreed that an operation was the only thing to be done. They refused. We gave them half an hour to decide, and then they agreed. Dr. Elliott brought out Mr. Taylor, and he operated. The pulse at 1 P.M. had gone up to 140, and at 3.30 P.M. was 160. The boy survived the operation two hours and a half, and was quite conscious. During the whole illness the pulse never got beyond 70 till the Sunday that he was operated on. On opening the peritoneal cavity a quantity of thin turbid fluid escaped. On bringing up the appendix from its adhesions an abscess was opened, from which pus

welled, quite different in character from the fluid in the general cavity. In the wall of the appendix I found a perforation, and in its cavity an almond kernel.

This was a case of apparently very mild acute appendicitis suddenly becoming fulminating. If the rule had been operate in all cases of appendicitis, the result might have been different.

Some time ago I saw a gentleman who had been suffering continued feverishness for months. He complained of pain at the epigastrium, this epigastric pain was of but some weeks standing, before then his pain had been vague both in position and duration. There was a distinct fullness at the epigastrium, so I cut down on it and opened an abscess. He improved somewhat, but very shortly became worse and died. A *post-mortem* examination showed that the abscess which I opened was only one of several in the liver. The appendix was found bound down by adhesions and full of pus; evidently the appendix was the starting-point of a fatal case of pyaemia.

There are at the present time two young women in the infirmary upon whom I have operated. The condition found in each of these cases makes it extremely probable that a recurrence would have taken place very shortly, and also that the recurrence would very possibly have soon become fulminating. I saw both these cases during the acute attack, and refrained from operating. One of them I saw with Dr. Mann, and I think she escaped very narrowly. I found at the operation that the appendix was in a mass of adhesions, and that the manipulation necessary separated the appendix from the proximal end along a line of circular ulceration; the cavity contained pus, and there was a fan-shaped ulcerating surface at the distal end.

The other patient I saw with Dr. Burlingham of Hawarden. At the operation I opened an abscess, and a faecal concretion escaped. I cut away a mass of adherent material in which was the ragged appendix and several small concretions.

I feel that both these cases ran a very grave risk of becoming fulminating. But as yet I hesitate. I still think if the operation were done after the first forty-eight hours during an acute attack that the mortality would be greater than it is by waiting for an interval.

A Clinical Lecture

ON

SOME CASES OF CHRONIC NON-MALIGNANT GASTRIC ULCER.

Delivered at University College Hospital, January 5th, 1902.

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GENTLEMEN,—The last nine cases of non-malignant chronic disease of the stomach and duodenum which you have recently had an opportunity of seeing treated in my wards offer a good opportunity for the study of this affection in several aspects. I take, therefore, this occasion while they are fresh in our minds to draw your attention to them again and to point out some of the matters we may learn from them. Three of them are still here before you.

I cannot do better than review them in the reverse order of their occurrence. This will place before you first the simpler forms of ulceration, or, at least of inflammation of the stomach; next, the more severe forms of the same associated with sharp bleeding; thirdly, the results of cicatricial contraction due to chronic inflammation of the organ and, lastly, the most dangerous consequence of the latter, namely, perforation of the stomach.

You have had an opportunity of seeing that the treatment of these three groups has been quite different, as have also the results.

The group is made up as follows:

- Case I.—Chronic ulceration, moderate haematemesis. Convalescing.
- Case II.—Ulceration, obstinate vomiting, but no haematemesis. Convalescing.
- Case III.—Ulceration, moderate vomiting, sharp recurrent haematemesis. I performed gastro-enterostomy on this patient since. Recovery perfectly uneventful.
- Case IV.—Ulceration, moderate vomiting, fatal recurrent haematemesis.