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Case Report

It is not Appendicitis! It is Appendicitis Epiploica, the Great Pretender

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Abstract

Appendicitis epiploica or epiploicae appendagitis, an uncommon cause of abdominal pain, is usually per-operatively diagnosed. The pedunculated fat-filled small pouches or appendices epiploicae on the serosal surface of the colon often become twisted and sometimes spontaneous thrombosis occurs. Such events lead to ischemia and inflammation at the base of the fatty lobes i.e., Appendicitis epiploicae. Symptoms include sharp localized pain in either iliac fossae and in some cases there is elevated temperature and white blood cell count. In a quarter of the patients there is rebound tenderness and very rarely nausea and vomiting, diarrhoea or constipation. This condition is more common among middle aged males and given its non-specific symptoms. It is usually confused with other more common conditions such as Meckel's diverticulitis and appendicitis. Less than 8% of patients suspected of having appendicitis or diverticulitis are found to actually have appendicitis epiploicae. Here we report two extremely rare cases of appendicitis epiploica in Bangladesh.

Introduction

Appendicitis epiploica is a disorder of epiploic appendages which quite often goes undiagnosed before surgery as it is extremely uncommon[1 2]. Usually seen in middle aged individuals especially males[3]. Symptoms includelocalized pain in either iliac fossae and there may be elevated temperature. Some other conditions with similar presentation include Meckel's diverticulitis, appendicitis, pelvic inflammatory disease and regional ileitis, ureteric calculous and twisted ovarian cysts.

First described in 1543 by Vesalius, appendices epiploicae are small pouches or peritoneal pockets of fat enclosed in serous membrane, usually 0.5 to 2.5 cm in diameter and 2 to 5 cm long. Most exist on the left side of the colon and so appendicitis epiploicae occurs more often on the sigmoid colon followed by the caecum (less than 10% to a third of the cases) [1,4].

These lobes of fat are each supplied with one to two arterioles and one venule at the base where it is attached to the colon. These pedunculated appendages with high mobility are prone to being twisted leading to ischaemia and haemorrhagic infarction. Sometimes spontaneous thrombosis may also occur in a draining vein leading to infarction and necrosis.

Due to low incidence and non-specific symptoms there is corresponding low awareness among general surgeons leading frequently to misdiagnosis. Given the confusion with acute appendicitis, caecal appendicitis epiploicae gains clinical importance. The confusion arises due to the similarity of symptoms and test results. The primary complaint is sharp

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localized pain in right iliac fossae. In some cases temperature and white blood cell count is raised[2] and in a quarter of the patients there is rebound tenderness. Though rare, there may also be associated nausea, vomiting, diarrhoea or constipation. Very rarely two conditions may coexist such as appendicitis epiploicae and acute appendicitis[3]. Here we report two rare cases of appendicitis epiploicae where both patients are female.

Case 1

The first patient was a 41 year old woman weighing 74 Kg who arrived at the hospital with complaints of continuous dull pain in the lower right abdomen and nausea for one week duration.

Physical examination revealed tenderness at the McBurney's point and rebound tenderness present. Her pulse rate and blood pressure were normal. Urine RE normal. WBC count 6000/ml of blood and neutrophil 65%.

Ultrasonogram of the whole abdomen revealed- a tubular bowel loop, 7 mm in diameter with adjacent minimal localized collection in the right iliac fossa was noted. The diagnosis was acute appendicitis and she was referred for surgery.

During the operation the appendix was found normal. However, an elongated oedematous gangrenous appendices epiploicae of caecum was found. Resection of the twisted appendices epiploica was done followed by appendicectomy (Figure 1).

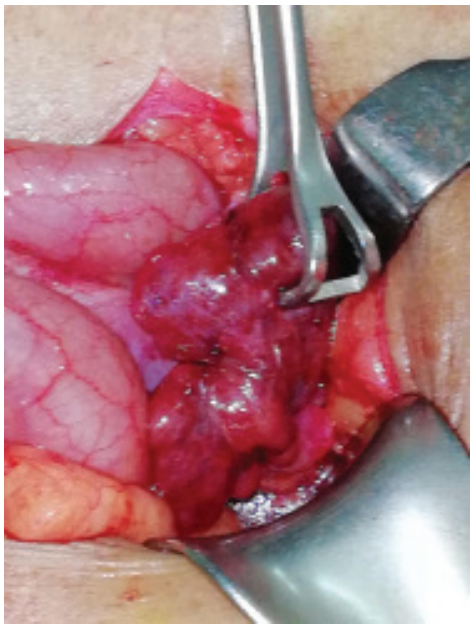

Figure 1: *Peroperative image of gangrenous appendecies epiploica – Case 1*

Case 2

The second case was a 34 year old woman weighing 72 Kg presented with complaints of right lower abdominal pain for three days duration. The pain was colicky and she had tenderness at the McBurneys point and rebound tenderness present. She had nausea and her pulse and blood pressure were normal.

Haemoglobin level was 12.4 g/dl and ESR was 51 mm in the first hour. White blood cell count was 8600/ml and neutrophil proportion was 59%. Urine RE normal. The case was diagnosed as acute appendicitis. During surgery a gangrenous appendecies epiploica of the ascending colon was found. The appendix was normal. The appendices epiploicaof ascending colon was excised. Appendicectomy was not performed as per wish of the patient.

Discussion:

Appendicitis epiploicae is rare. It is even rarer among women. The two cases reported here are both middle aged females. Symptoms presented by both patients were non-specific and test results did not reveal anything specific. Thus due to the rarity of appendicitis epiploica and the pain being on the right side in both cases the pre-operative diagnosis was acute appendicitis. This is not unusual as most cases appendicitis epiploicae are diagnosed per-operatively[3].

At first visit both reported pain in the right side of the abdomen. Neither had altered pulse rate or blood pressure or elevated temperature which is the norm in most cases. In some patients CRP level may also be slightly raised. One study reported that 20% of their patients had complained about nausea[5] when the pain was on the left side. When the pain was due to right side appendicitis epiploicae, it was rarer: 6%[5]. Interestingly both of our patients complained of nausea and a quick literature search suggests nausea may be more common among females with appendicitis epiploicae [6,7].

For case 1, a blood panel revealed nothing out of the ordinary, though Neutrophil proportion was 65% indicating the possibility of infection. On the other hand, in case 2, neutrophils percentage was 59% and WBC count was within normal ranges indicating no infection. ESR was 51 mm/hr – much higher than normal for females. This was another indicator of infection or other problem. Overall the clinical findings were inconclusive.

Ultrasound investigation showed a tubular bowel loop in the right iliac fossa in the first case – easily confused with acute appendicitis. There was no definite indication of appendicitis epiploicae.

Appendicitis epiploicae or epiploicae appendagitis symptoms and clinical findings are not definite. In absence of such evidence, more common causes of abdominal pain are sought. Here both case were diagnosed and operated as acute appendicitis.

Conclusion:

Invariably surgical intervention is recommended and to the surprise of the surgeons the appendix turns out not to be inflamed. In such cases the doctor needs to be aware of less common conditions such as appendicitis epiploicae so as not to be caught off guard.

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