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Medical Quiz

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A twenty-six year old Indian labourer had arrived in Bahrain since seven days. He presented to accident and emergency department of Salmaniya Medical Complex with a history of abdominal pain in the right iliac fossa, loss of appetite, vomiting and watery loose motions of five days duration. There was no history of passing mucus or blood in the stools. He denied any past history of similar complaints. The patient was afebrile with a pulse rate of 82 per minute. General physical examination was normal. The abdomen felt soft, non-distended with mild tenderness and guarding. Rebound tenderness was also elicited in the right iliac fossa with the possibility of a mass. The liver was not enlarged. Investigations showed haemoglobulin-14.5 g/dl, total leucocyte count is 20.5 x 10 9 cells, differential leucocyte count showed polymorphs 76%, lymphocytes 8%, monocytes 14%, band forms 1% and atypical lymphocytes 1%. Liver function tests showed Serum albumin of 29 g/l and serum globulin of 41 g/l. Total bilirubin was 15 umol/L and mildly raised alkaline phosphatase of 188 u/L. Serum electrolytes showed mild lowering of sodium 136 mmol/L and serum chloride 98 mmol/L. Abdominal ultrasound has suggested the possibility of an appendicular mass. The patient underwent an emergency appendectomy. Peri-operatively, a discrete retrocaecal appendicular mass with thickened peritoneum and meso-appendix was noted. There was no pus found in the mass or the abdominal cavity. Large bowel was unremarkable except for mild thickening of the caecum. The patient did not report during the follow up period. Pathological findings showed appendix grossly measured 10.5 x 1x 1 cms and looked brownish with exudate on the outer aspect. Histology revealed inflammatory exudate covering patchy areas of ulcerations. (Figures. 1 and 2)

Fig. 1 Fig. 2

Q. 1 What is the histologic finding?
Q. 2 What is your diagnosis?
Q. 3 What is the characteristic finding ? How do you confirm such a diagnosis ?
Q. 4 How do you distinguish Entamoeba histolytica from non-pathogenic Entamoeba coli?
Q. 5 Name the complications of this condition? What are the other abdominal sites where such a pathology can occur?

Answers on page No.

Answers to Medical Quiz

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A. 1 Mucosal ulceration covered by inflammatory exudate rich in lymphocytes and a pale body with space around.
A. 2 Amoebic appendicitis
A. 3 Typical trophozoites of Entamoeba histolytica with space around these bodies are seen. Special stain such as Periodic Acid Schiff reveals these as dark pink bodies. Such trophozoites with ingested red blood cells within, further reveal this diagnosis.
A. 4 Entamoeba coli lack ingested red blood cells and features of acute appendicitis should be absent.
A. 5 Perforation and peritonitis. Colon especially caecum, Rectum and Liver.

DISCUSSION

Entamoeba histolytica occasionally infests the appendix, but its presence in associationwith acute appendicitis is very rare[1-4]. It is not clear why some parasites becomepathogenic and invasive resulting in ulceration. In these appendices, bacterial infection often supervenes resulting in the clinical presentation of acute appendicitis. In the tropics, colonic amoebiasis constitutes one of the most significant gastrointestinaldiseases. It commonly presents as colitis/typhilitis, liver abscess, amoeboma, peritonitis and rarely as localized appendicitis[1]. Amoebic appendicitis has been reported in 7-40 % of patients dying from amoebiasis and those presenting as an acute abdomen; isolated amoebic appendicitis is well documented[1- 5].

The noteworthy aspect of this case was the presentation with acute appendicitis without any clinical pointers as to its amoebic aetiology. Stool routine examination was not undertaken, as amoebiasis was not suspected pre-operatively. Also there was no operative evidence of hepatic or colonic amoebiasis. In this case, specific cause of appendicitis could be ascertained only on histopathologic examination of the surgically removed appendix. Increased awareness of this entity by pathologists may lead to an increase in detection of such cases.

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