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Research study

Surgery

Abdominal tuberculosis

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Abstract

Introduction

Abdominal tuberculosis manifesting as recurrent subacute intestinal obstruction or peritonitis is always challenging to manage. The aim was to study patients who had emergency surgery for abdominal tuberculosis

Materials and methods

This prospective study was done at Sheri-Kashmir institute of Medical sciences, Srinagar from Nov 2008-2011. All those who had diagnosis of abdominal tuberculosis and had surgical intervention were included in this study.

Results

A total of 18 patients had abdominal tuberculosis. Male:female ratio was 7:11. Non resolving SAIO was present in 8 and 10 had features of peritonitis. Colonic thickening, omental thickening and perforation were seen in 1 patient. Abdominal pain was the leading symptom followed by fever. All had lapatrotomy. Mesenteric biopsy was taken in all patients. All had ATT for 9 months.

Conclusion

Tuberculosis peritonitis or intestinal obstruction is rare.

Introduction

Abdominal tuberculosis comprises in about 1–3% of all cases of tuberculosis and about 12% of extrapulmonary tuberculosis[1].

Primary abdominal tuberculosis is rare. Ingested food, swallowing infected sputum, haematogenous route are sources of spread or direct contact through the infective lymph nodes and the retrograde spread via fallopian tubes makes the tubercle bacilli reach the gastrointestinal tract[2]. Different characters and visceral involvement could lead to diagnostic dilemma. Location in unusual sites could mimic malignancy. Small gut is commonly involved in the abdomen. Intestinal form could present as recurrent subacute intestinal obstruction or the colonic thickening. Omental tuberculosis could present as swelling of the omentum. A clinical suspicion is still the first step for the diagnosis of tuberculous peritonitis[3]. The aim was to study patients who had emergency surgery for abdominal tuberculosis.

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Materials and methods

This work conforms to the values laid down in the Declaration of Helsinki (1964). The protocol of this study has been approved by the relevant ethical committee related to our institution in which it was performed. All subjects gave full informed consent to participate in this study.

This prospective study was done at Sheri-Kashmir institute of Medical sciences, Srinagar from Nov 2008-2011. All those who had a diagnosis of abdominal tuberculosis and had surgical intervention were included in the study.

A total of 18 patients were studied.11 females and 7 males were there. Age ranged from 11 years to 68. 10 patients had features of peritonitis and 8 had features of non-resolving subacute intestinal obstruction. 3 patients were documented cases of abdominal tuberculosis, one who had colonic mass, omental thickening and one attack of recurrent SAIO.

All others had diagnosis of post laparotomy. Abdominal pain was the leading symptom followed by fever in features of intestinal obstruction. Ascitic fluid was drained in all patients ranging from 50 ml- 4 litres and gut was distended in all. All were cases of primary abdominal tuberculosis. None had any immunodeficiency disorder.

Results

Perforation was seen in one patient, having two perforations about 1cm each, 30cm apart with enlarged mesenteric nodes. Biopsy of perforation with mesenteric biopsy was done. Omental thickening was recorded in one patient. Ileocaecal tuberculosis was present in one case. One patient had an appendicular lump and on interval appendectomy which revealed multiple tubercles on the appendix and with tubercles studded on the whole gut.

Two patients who presented with features of acute abdomen and had ascites, multiple tubercles studded on the gut and had biopsy. Confirmed case of tubercular mass of colonic growth on ATT had features of SAIO and had emergency laparotomy. Only one had resection of the gut. The others had mesenteric node biopsy All had ATT.

PCR of ascitic fluid was positive for Mycobacterium tuberculosis (M. tuberculosis) in all cases. Biopsy specimens showed granulomas.

Discussion

Abdominal tuberculosis has a myriad of presentations[4]. Presentation varies from asymptomatic state to surgical emergency. Abdominal TB is seen more commonly between 25 and 45 years of age. Constuitional symptoms can be presentation. In intestinal tuberculosis abdominal pain, constipation and vomiting suggestive of intestinal obstruction are usually seen. Recurrent attacks of subcute intestinal obstruction occur. In large gut lesions, symptoms of malignancy may mimic malignant colonic obstruction.

Localized or general ascites and abdominal distension diarrhoea, fever, weight loss, malaena and anaemia

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could be seen[5]. Omental swelling could be seen. Tubercles are sometimes studded on the gut, and involvement is diffuse giving mottling appearance to the gut. An unusual finding is that in abdominal tuberculosis of vermiform the appendix mimic the appendicular lump when preoperative diagnosis is appendicitis.

Abdominal wall is sometimes studded with tubercles seen in cases with peritoneal involvement and ascites. Ascitic fluid provides a pathway for spread of tubercles. Sometimes features of peritonitis with abdominal pain, fever, tenderness and rebound tenderness could be seen. These documented peroperative findings are deemed as urgent laparotomy.
Mesenteric nodes enlargement is one of consistent findings with distal nodes being more involved and showing enlargement.

A favourable lodgment other than common sites is intrinsic character of organ. Small gut is commonly involved among all organs in the abdomen followed by large gut. Presence of peyer's patch enriches lodgment of bacilli in small gut and favours ileal involvement.

Bypassing lung and lymphatic route is the predominant mode of spread to abdominal viscera. Haematogenous spread may involve abdominal visceral involvement in some cases. Surgery is necessary for acute complication like obstruction and peritonitis[6]. Perforation of intestine requires repair. All other manifestations need mesenteric biopsy or tissue biopsy to confirm diagnosis.

Conclusion

Tuberculosis peritonitis or intestinal obstruction is rare. Females are commonly involved.

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