A STUDY OF 86 CASES OF ABDOMINAL TUBERCULOSIS

NASEER AHMED BALOCH, MANZOOR AHMED BALOCH, FIDA AHMED BALOCH

ABSTRACT

Objective — *The aim of this study was to evaluate the varied presentation, morbidity/ mortality and outcome of various surgical procedures done in patients with abdominal tuberculosis.*

Study design — *Case Series*

Place & Duration of study — *Surgical Unit III & IV Bolan Medical College Complex Hospital Quetta, from January 2005 to June 2007*

Patients and Methods — *All those patients who were clinically suspected to have abdominal tuberculosis, supported by investigation and gross morphological findings at surgery and histopathologically proven caseating granulomas were included in this study.*

Results — *A total of 86 patients were managed during the study period. The mean age of patients was 35.6 years and male to female ratio of 1:2. Primary intestinal tuberculosis was found in 78%. About 52.3% of patients had single or multiple strictures involving the distal ileum and ileocaecal region. 27.9% of patient had mass in the ileocaecal region. Perforation was recorded in 19.8% cases. Mortality was 2.3%. Major postoperative complications occurred in 13.9% of patients. All patients were prescribed anti tuberculosis drugs for a period of 12 months. The median follow up was 6 month. 82.5% of patients were doing well till the last visit.*

Conclusions — *Patients who present with bowel obstruction especially sub acute or chronic, should have a complete workup to prove or rule out intestinal tuberculosis. In the presence of bowel perforation with faecal peritonitis and intra-abdominal sepsis, ileostomy is a safer procedure than primary anastomosis.*

Key words — *Abdominal tuberculosis, Presentation, Peritonitis, Ileostomy.*

INTRODUCTION:
Diagnosis of extra pulmonary tuberculosis is usually difficult because of varied presentation and lack of sensitive tests.[1,2] Tuberculosis has been called a great mimic, particularly so in the abdomen, where its manifestation can resemble a variety of diseases.[3] In most cases diagnosis is reasonably made by the process of exclusion.[4] The clinician should be more vigilant and follow the objective course in the assessment of these patients.

Correspondence
Naseer ahmed Baloch
Department of Surgery
Bolan Medical College
Quetta

Abdominal tuberculosis may present clinically as an acute abdomen, either due to bowel obstruction, perforation or mass in right lower abdomen mimic acute appendicitis or appendicular mass.[5] Despite advances in drug therapy and diagnostic facilities, tuberculosis remains a major health problem in the developing countries especially Africa and Indo-Pak subcontinent.[4] The diagnosis is usually

made at laparoscopy or exploration of abdomen. The present study aims to evaluate the varied presentation of abdominal tuberculosis, diagnosis and outcome of different surgical procedures.

PATIENTS AND METHODS:

The case records of 86 patients with clinical and pathological diagnosis of abdominal tuberculosis managed in Surgical unit III & 1V, of Bolan Medical College Quetta, from January 2005 to June 2007 were reviewed. The criteria for diagnosis of intestinal tuberculosis were clinical suspicion, operative findings, proven histologically, demonstration of AFB and response to anti-tuberculosis drugs. Chest x. rays were performed in all cases. Patients with normal chest x. rays, but symptoms and signs of intestinal tuberculosis were considered to have primary intestinal tuberculosis. Barium contrast studies were performed in 23 patients.

All 86 patients had exploration of abdomen. Forty six (53.4%) patients underwent emergency exploratory laparotomy after resuscitation and baseline investigations. Peritonitis with free gas under the diaphragm were noted in 19.8% patients. In 24 (27.9%) patients presentation was with mass right lower abdomen. Sixty two (72%) patients presented with signs and symptoms of acute or sub acute intestinal obstruction. Mass in ileocaecal region, adhesions and bands were causing intestinal obstruction. In all patients specimens were subjected to histopathology which confirmed the diagnosis. Postoperatively all the patients received antituberculous drugs for a period of one year

RESULTS :

The age range of patients with intestinal tuberculosis was 16-70 years but most patients were in second and third decade of life. The male to female ratio was 1:2. Majority of patients were from low socioeconomic group. Out of 86 patients 62(72%) were considered to have primary intestinal tuberculosis and 24 (26%) had secondary intestinal tuberculosis with remarkable chest x rays. Sixty two (72%) patients were with features of acute or sub acute intestinal obstruction and seventeen (19.8%) presented with peritonitis. The duration of symptoms prior to admission varied between 3 days to one year. (Table- I).

Majority of patients were anaemic and deficit in electrolytes. ESR was raised in 73 (84.8%) patients. Mantoux test done in 30 patients was positive in 18. Plain x-rays of abdomen revealed distended loops of bowel and air fluid level in 69 (80.2%) cases. Barium meal studies revealed one or more of the features like narrowing of distal ileum and ileocaecal region, matted small bowel. All the 86 patients had exploration of the abdomen. Following findings were noted (Table-II)

The most common area of involvement was distal ileum in 51(59.3%) patients. The ileocaecal region was involved in 32 (37.2%) patients. In three patients (3.8%) jejunum was involved. In 41 patients (47.6%) stricturoplasty was performed. Twenty six (30.2%) patients had right hemicolectomy. Ileostomy usually loop ileostomy was performed in 14 (16.2%) patients and 5 patients (5.8%) had primary closure of perforation.

Postoperative complications were noted in 13.9% of patients in the form of residual abscess (3 patients) wound dehiscence in 5 patients and 4 patients had chest problem and wound sepsis. The mortality was 2.3%. The cause of death was severe abdominal sepsis and multi organ failure. Out of 86 patients, 71(82.5%) were doing well during follow up for 6 months and 15 patients (17.5%) did not report for follow up.

Table- 1
Clinical features at the time of presentation

Signs & Symptoms	No. of Patients	Percentage
Pain abdomen	86	100
Constipation	64	74.4
Abdominal Distension	70	81.3
Nausea / vomiting	80	93
Tenderness	71	82.5
Fever	52	60.4
Loss of weight	46	53.4
Diarrhoea/constipation	18	20.9

Table II - Operative Findings

Findings	No. of Patients	Percentage
Strictures	45	52.3%
Single	31	
Multiple	14	
Mass ileocaecal region	24	27%
Intestinal perforation	17	19.8%
Ileocaecal region	8	
Terminal ileum	6	
Jejunum	3	

DISCUSSION:

Abdominal tuberculosis is the second commonest extra pulmonary form of the disease according to a study carried out by Shehzad.[6] Abdominal tuberculosis can occur at any age, but most commonly in young age. The meanage of 35.6 years in the present study reflects the observations of

various studies.[5,7] Majority of patients in our study belonged to poor socio-economic class which is also reported in other studies. Poor nutritional status, lack of health facilities and poor pasteurization of milk have been implicated to contribute to this problem.[8,9] Preoperative diagnosis of abdominal tuberculosis is difficult. High index of clinical suspicion and laparoscopy help to establish the diagnosis. In the present study most of the patients required urgent surgical intervention (79 91%). Most of these patients had intestinal obstruction (72%) as reported in other studies.[5,7] A high incidence of disease in the females has been reported in many studies.[1,8,10] Abdominal pain was the commonest presentation in our patients and has been recorded by various authors. [10,11,12]

Single or multiple strictures of ileum were seen as the most common cause of intestinal obstruction - 45(52.3%), followed by ileocaecal mass in 24 patients (27.9%). Seventeen (19.8%) patients presented with peritonitis due to visceral perforations. In these patients, ileostomy was fashioned. Limited right hemicolectomy and ileo-colic anastomosis was performed in 26 (30.2%) patients. The high prevalence of primary intestinal tuberculosis in the present series is in accordance with most of the other studies conducted in developing countries.[5,7,8,11,13] Studies from developed countries has shown secondary tuberculosis to be more common.[14] Abdominal tuberculosis is a disease, which has no characteristic clinical features, from which a firm clinical diagnosis can be made. Even after complete range of investigations, the diagnosis may be elusive. A high index of clinical suspicion and laparoscopy help to establish the diagnosis.[15]

In the present study all the patients were prescribed anti tuberculous drugs for 12 months, as most of the series recommend.[16] The low mortality rate of 2.3% reflects better preoperative management and good surgical decision making regarding various operative procedures. In conclusion patients who present with bowel obstruction especially sub acute or chronic, should have a complete workup to prove or rule out intestinal tuberculosis. In the presence of bowel perforation with faecal peritonitis and intra-abdominal sepsis, ileostomy is a safe procedure than primary anastomosis.

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