

Intestinal Tuberculosis - 5 years experience in Tertiary Care Hospital

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ABSTRACT

Background; Abdominal tuberculosis (TB) is a common disease in developing countries and reemerging in the west. This disease is still diagnostic dilemma for physicians and surgeons, as it mimics many abdominal diseases.

Objective: To evaluate the clinical presentation and management of abdominal tuberculosis in our set up.

Study Design: Prospective study

Place and Duration of Study: This study was conducted in surgical unit III, Peoples University of Medical & Health Sciences Hospital Nawabshah, from July 2006 to June 2011.

Materials and Methods: Total 70 patients were included in this study from 205 suspected cases. The cases were either previously diagnosed or diagnosed during operation performed for intestinal obstruction, peritonitis or appendicitis. Patients were confirmed on the basis of histopathology, cultures and AFB.

Results: Age of the patients ranged between 6 to 38 years. Male to female ratio was 1.3:1. Abdominal pain and weight loss were the most common symptoms. Common presentation was intestinal obstruction and peritonitis. Majority of patients underwent resection and anastomosis and limited right hemicolectomy.

Conclusion: It has been emerged from our study that abdominal TB presents with different clinical features which are nonspecific and often diagnosed during laparotomy. Majority of patients underwent resection and anastomosis and limited right hemicolectomy.

Key Words: Abdominal tuberculosis, Intestinal obstruction, Peritonitis, Resection and anastomosis

INTRODUCTION

Intestinal Tuberculosis is a common and major health hazard in Pakistan just like other countries where ignorance, poverty, overcrowding and malnutrition are prevalent. The disease starts as transverse ulcers in the intestine or hyperplastic mass lesion usually affecting ileocaecal region^{1,2}.

Intestinal TB is one of the common sites of extrapulmonary involvement (11%)³. Abdominal TB occurs from ingestion of food contaminated with tubercle bacilli causing primary intestinal TB, ingestion of sputum containing tuberculous bacteria from primary pulmonary focus causing secondary intestinal TB. Other routes are cervical lymph nodes and retrograde spread from fallopian tubes, it can affect any part of gastrointestinal tract from mouth to anus. The sites most affected often are the ileum, proximal colon and peritoneum³.

The protean clinical manifestations and varied complications of abdominal TB continues to challenge the diagnostic acumen and therapeutic skills of all physicians⁴.

The disease commonly presents insidiously with abdominal pain, fever, night sweats, vomit, diarrhea or constipation. Common complications are intestinal obstruction, perforation and malabsorption. Surgical treatment is required when it causes intestinal obstruction or peritonitis due to perforation⁵.

The main objective was epidemiological observation, clinical features, diagnosis, and planning of surgery in diverse presentation of abdominal TB.

MATERIALS AND METHODS

This study has been carried out in surgical unit III, Peoples University of Medical & Health Sciences Hospital Nawabshah. Total 70 patients with varied presentation of abdominal TB were recruited in this study, patients under the suspicion of abdominal TB were thoroughly evaluated. Careful history and physical examination was performed. Patient's age, sex and socioeconomical status recorded. Details with special reference to their symptoms of abdominal pain, nausea, vomiting, altered bowel habits, anorexia and weight loss were obtained. Patients were looked for anemia, abdominal distension, tenderness and mass. Their nutritional status was also evaluated by clinical methods and biochemical investigation.

Blood CP, ESR, total proteins and other routine blood investigations were performed.

Chest x ray, abdominal x ray and US of abdomen were routinely performed to observe the changes characteristic for abdominal TB. In selected cases CT scan, Laparoscopy, Barium follow through and Barium enema were also done to establish the diagnosis.

Patients admitted in emergency with acute intestinal obstruction or perforation was diagnosed only during exploratory laparotomy.

The operative findings were recorded regarding presence of strictures, ileocaecal lump, ascitis and other

gross features of abdominal TB. The specimens were sent for histopathology.

The patients were monitored post operatively and remained under follow up and antitubercular regimen continued for nine months

RESULTS

Among 70 patients, 40 were males and 30 were females thus average male to female ratio was 1.4 to 1. Age varied from 20 to 50 years average age was 27.5 years. Among 70 patients with diagnosis of abdominal TB, 38(54%) patients presented with acute intestinal obstruction, 12(17%) with recurrent abdominal pain and altered bowel habit, 8(11%) with lump in right iliac fossa with subacute intestinal obstruction, 5 (7%) with distension of abdomen due to ascitis, 3(4%) with peritonitis due to perforation of gut and 2(2.8%) with enlargement of mesenteric lymph nodes with abscess formation.

Two patients were presented with pain in right iliac fossa along with fever operated upon on the presumptive diagnosis of acute appendicitis.

Most patients were significantly anaemic, ESR was elevated in many patients significantly.

Evidence of active or old pulmonary TB was seen only in 15(21 %) on chest x ray.

In 42 patients diagnosis was made during explorative laparotomy. Specimen sent for histopathology.

Table No.1: Clinical Features

Symptoms	No of Patients	Percentage
Abdominal Pain	62	88.5%
Weight Loss	48	68.5%
Constipation	42	61.4%
Anorexia	41	60.8%
Fever	29	41.4%
Vomiting	25	35.7%
Constipation alternating with Diarrhea	12	18.1%
Night Sweats	11	15%
Pulmonary involvement	10	14%

Table No. 2: Types of Procedure

Procedure	No of Patients	Percentage
Resection of part of ileum & Anastomosis	34	48.5%
Right Hemicolectomy	21	30%
Adhesiolysis	9	12.8%
Biopsy of Lymphnode & omentum	70	100%
Drainage of Abscess	4	5.5%
Ileostomy	2	2.8%

Table No. 3: Operative Finding

Multiple Structure	32	45.7%
Single Stricture	8	11.4%
Enlarge Lymphnodes	48	68.5%
Ascitis	15	21.4%
Ileocecal Mass	8	14.2%
Adhesions & Bands	6	8.5%
Abscess	4	5.5%

DISCUSSION

Despite the fact that abdominal tuberculosis (TB) is a common disease in Pakistan, it is ill understood and is being neglected all too often by physicians and surgeons. Majority of the patients with abdominal TB come from poverty stricken and remote areas where initially they are being misdiagnosed and treated inappropriately. As a result disease becomes advanced and often patients are being referred to our hospitals with complications like intestinal obstruction, peritonitis and ascitis⁶.

Patients with abdominal TB may present with different clinical features which may mimic many abdominal diseases, therefore if it is not clinically suspected, it may culminate in fearsome complications⁷.

The diagnosis of abdominal TB is indeed challenging. Even in highly endemic region the accuracy of clinical diagnosis is 50 %.⁸

Abdominal TB can occur at any age but is predominantly disease of young adults.

In our series all patients were between 6 to 38 years with average of 27.5 years. This is consistent with other studies of this region 26.5⁹.

In our series males were more commonly affected than females ratio was 1.3; which was somewhat different from other studies like Parokash et al showed that F:M = 2;1¹⁰. Hughes and Shukla reported F:M 1.6:1.17¹¹. In our study abdominal pain was the commonest symptom (88.5%) followed by weight loss (68%). Hematological tests revealed moderate degree of anemia and raised ESR in majority of patients.

Intestinal TB is common among the people of low socioeconomic group. Banerjee B.N had shown that incidence was more among the refugees living in the slums of Calcutta¹².

In our study evidence of active or previous focus found in 15 cases. S. Sircar et al has shown 16% of patient with abdominal TB found to have coexisting pulmonary TB¹³. Most common site of abdominal TB is ileocaecal region, it is mainly attributed to abundance of Peyer's patches. Due to stasis there is prolonging contact of bacteria with mucosa and more phagocytic activity. It may present in ulcerative form in which long standing ulcer cause fibrosis and later stricture formation or in hyperplastic form where extensive chronic inflammation, fibrosis, bowel adhesions, nodal enlargement often presents with mass in right iliac fossa.

Surgery is not recommended, either for confirming the diagnosis or as the first line approach to the management of uncomplicated abdominal TB. However patients with acute and sub-acute intestinal obstruction, who do not respond to conservative measures, must be treated surgically¹⁴. Diseased segment of bowel with adequate free margins are removed, avoiding extensive resection. Surgery is also needed in patients with a free perforation associated with abscess formation¹⁵.

In our study admitted 40 patients with acute and subacute intestinal obstruction and in 10 patients we found lump in right iliac fossa. In majority of the patients there were coexisting anaemia, anorexia, weight loss and fever. All these cases underwent vigorous resuscitation followed by laparotomy. In 33 patients multiple strictures found in ileum, diseased segment resected and anastomose performed.

In 10 patients we detected lump involving ileocecal part of intestine. These patients subjected to limited ileocecal resection. In all these cases specimen sent for histopathology to make 100% confirmation of TB and antitubercular treatment given for 9 months.

In our series 10 patients presented with peritonitis due to perforation. In 8 cases resection and anastomose performed in remaining 2 cases due to severe contamination diseased part of ileum resected and ileostomy performed, patients were kept on antitubercular treatment and nutrition support, ileostomy restored after 2 months.

Biopsy from perforation site and closure can be done in early cases but chances of leak and fecal fistula formation is high (due to closure of perforation over diseased bowel) so resection is better option.

In 6 patients exploratory laparotomy revealed straw colored fluid with tubercle in the peritoneum, greater omentum and bowel wall. Fluid evacuated and sample sent for culture and AFB, omental biopsy was taken and abdomen was closed. Adhesionolysis in these patients may prove to be counter productive due to friability of gut which can easily get perforated, and it is associated with high mortality. 2 patients had massive ascitis, ascetic tap done under US and sent for cultures and AFB.

TB can involve mesenteric lymph nodes and often results in massive enlargement of lymph nodes and abscess formation, these patients presents with general symptoms of fever, malaise and weight loss. It may presents with features of acute Appendicitis¹⁴. In our study we found 4 cases where clinical features were abdominal pain, fever and weight loss. All these patients underwent open drainage of abscesses and subsequently kept on antitubercular treatment after having histopathological evidence in hand.

CONCLUSION

Abdominal tuberculosis presents with different clinical features which are nonspecific and often diagnosed during laparotomy. In current study abdominal pain with loss of weight, constipation and anorexia were the leading presentations. Majority of patients underwent resection and anastomosis and limited right hemicolectomy.

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