ABDOMINAL TUBERCULOSIS - PROFILE OF 26 CASES

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ABSTRACT
Objective: To study the various modes of presentation of Abdominal Tuberculosis.
Study Design: Prospective study.
Setting & Duration: Surgical Unit I, Sindh Government and Layari General Hospital from January 2003 to December 2007.
Methodology: All patients with abdominal tuberculosis, who had varied modes of presentations, were included. Diagnosis was based on history, physical examination and laboratory investigations. Patients who underwent surgery their preoperative findings and procedure performed was also recorded.
Results: Mean age of 10 male and 16 female patients was 33 years (range 14-66 years). Varied presentation of abdominal tuberculosis included pain in abdomen (88.46%), fever (84.6%), weight loss (69.2%), mass in abdomen (46.1%) and abdominal distention Ascites) (26.9%). Surgical intervention was done in 16 (61.5%), mass in abdomen. Adhesiolysis (18.75%), resection and anastamosis (12.5%), stricturoplasty (12.5%). loop Ileostomy (25%), closure of perforation (18.75%) and limited right hemicolectomy (12.5%) were the procedures carried out. 4 patients expired with a mortality rate of 25%.
Conclusion: The diagnosis of abdominal is difficult due to the lack of specific signs and symptoms. However predetermined clinical can be readily applied for earlier diagnosis. Surgical exploration is reserved for equivocal cases and for those who present as emergencies.

KEY WORDS: Abdominal Tuberculosis, Anti-tuberculous treatment, Right hemicolectomy, Resection Anastamosis

INTRODUCTION

Tuberculosis (TB) is a very old disease worldwide and extremely common in developing countries. TB is still a killer disease that seems to take its tool in the lower and lower middle class population. According to WHO report[1], incidence of tuberculosis in Pakistan is 181 cases per 100,000 population per year. Mortality from TB is estimated at 40 deaths per 100,000 population per year.

In Pakistan, extra pulmonary TB is also very common, with the abdomen as the major site as reported by Shukla[2], Guth[3] and Horvath.[4] Studies by the Khan[5], Martineez[6], Patel[7] and Perezte[8] showed that pre-operative diagnosis of abdominal tuberculosis is a challenge for the clinician and it poses great difficulties.

Abdominal TB can affect the gastrointestinal tract, peritoneum, mesenteric lymph nodes, liver, spleen and pancreas. The ileo-caecal region is the most common site involved followed by jejunum and colon. The diagnosis of abdominal TB is often delayed resulting in increased morbidity.[9] Its non-specific and protean clinical manifestations cause abdominal TB to be confused with other diseases. Therefore due to less specific clinical presentations and less sensitive and non-specific investigations, abdominal TB may have diagnostic dilemma. Therefore we decided to evaluate 26 cases of abdominal tuberculosis to find out various modes of presentations.

METHODOLOGY

This prospective case series study was carried out at Sindh Government Lyari General Hospital, Karachi

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from January 2003 to December 2007. All patients with abdominal tuberculosis were included. Diagnosis was based on history, physical examination and investigations. Investigations included blood CP, ESR, Montoux test, PCR in selected cases. X-Ray chest and abdomen, U/S and barium meal follow through in selected cases. Patients who presented with signs and symptoms of obstruction or peritonitis were explored. During exploration, we observed type of abdominal TB, extent of disease, presence or absence of ascites, lymph node involvement, type of gut involved, number of strictures, number of perforations. Surgical procedures included resection anastamosis, adhesiolysis, and stricturplasty, primary repair of perforation, ileostomy and exteriorization of gut. In all cases histopathological examination of resected specimen or mesenteric lymph nodes was performed in patients who underwent surgery.

RESULTS

In this study of 26 patients 10 were male and 16 were female. Male to female ratio is 5: 8. The age range was between 14-66 years and mean age was 33 years. Common presenting signs and symptoms included abdominal pain, weight loss, vomiting, fever, abdominal distension, diarrhoea, constipation, abdominal tenderness (peritonitis), ascites and abdominal mass. Detailed clinical presentation of these cases is reflected in Table I.

In this study, investigations revealed anemia in 24 cases (92.3%), raised ESR in 16 cases (61.5%), reactive Montoux in 8 out of 12 cases tested. Ascitic fluid study was done in 7 patients, who had exudative type. Barium meal and follow through was done in 10 cases and 7 (70%) patients revealed lesions suggestive of TB.

Table I. Clinical presentation of abdominal tuberculosis

Signs/Symptoms	No. (n=26)	(%)
Abdominal Pain	23	88.4
Vomiting	20	76.9
Fever	22	84.6
Weight Loss	18	69.2
Diarrhoea	3	11.5
Constipation	2	7.6
Abdominal Tenderness	19	73.0
Ascites	7	26.9
Abdominal Mass	12	46.1
Peritonitis	8	30.7

Diagnostic laparoscopy was done in 4 cases and tubercles were present in all these cases. X-Ray chest revealed associated pulmonary TB in 6 patients. 10 patients were managed conservatively with anti-tuberculous chemotherapy while surgical treatment was done in 16 patients (61.5%) followed by anti-tuberculous chemotherapy. Table II shows various surgical procedures done.

Histopathological examination of mesenteric lymph nodes or resected gut was done in all 16 cases for confirmation of tuberculosis. Distal ileum was the commonest site followed by ileocecal region and jejunum. 4 patients (15.38%) out of 26 died. Out of them 3(75%) presented in emergency with peritonitis and one (25%) had miliary TB.

Table II. Surgical procedure in operated cases

Surgical Procedure	No. (n=16)	(%)
Adhesiolysis + Biopsy	3	18.75
Resection Anastamosis	2	12.50
Stricturoplasty	2	12.50
Loop Ileostomy	4	25.00
Closure of Perforation	3	18.75
Limited Right Hemicolectomy	2	12.50

DISCUSSION

The awareness of clinical presentation of abdominal tuberculosis shortens its diagnostic time and improves its management.[10] Abdomen is the commonest site of extra pulmonary TB and its incidence is increasing.[10,11] Abdominal TB is more common in females as evident from present study and other studies.[12] This can be explained by the fact that females are more neglected and malnourished in our population. The incidence of associated pulmonary TB is variable. It is 23% in our study as compared to 21% in a 230 patient study by Tariq.[13]

In this study, patients with abdominal tuberculosis presented with fever 84.6%, abdominal pain 88.4%, vomiting 76.9%, weight loss 69.2%, mass in right iliac fossa 46.1%. Ten patients were managed conservatively (62.5%), while surgical intervention was done in 16 patients. Sircar[15] described that 79% patients managed conservatively and 21% patients needed surgical intervention.Terminal ileum was most commonly involved (60%) followed by ileocaecal junction 30%. This contradicts other studies[13], which showed ileocaecal

region (39%) and terminal ileum (16%). Mortality was 15.38% in the present study while Baluck has zero mortality.[16] Lingen felsen had a mortality of 7.3% and Dandapat[17] had a postoperative mortality of 6.4%.

CONCLUSION

There is a resurgence of abdominal tuberculosis due to MDR cases. Patterns of Intestinal TB are changing as most of the surgical presentations are through emergency. Later presentation remains a problem in our country.

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