ORIGINAL ARTICLE

Spectrum of Presentation of Abdominal Tuberculosis at Ghurki Trust Teaching Hospital, Lahore

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ABSTRACT

GTTH, Lahore from July 2006 to June 2009 to assess the clinical presentation of abdominal tuberculosis and its management**.**

Methods: All patients presenting to outpatient/emergency department with clinical features suggestive of abdominal tuberculosis were included in the study. They were investigated. On the basis of clinical presentation, patients were divided in two groups. Patients with acute presentation (obstruction / perforation) were prepared and subjected to urgent laparotomy. Patients with chronic presentation (mass, subacute obstruction, etc) were managed conservatively with ATT. Empirical therapeutic trial was considered for three months. On reassessment, when good clinical response was considered, anti TB therapy was continued with monthly follow up. In case of no response, patients were operated. Required surgical intervention performed and tissue was taken to establish diagnosis.

Results: Amongst 50 patients majority were females 34(56.7%). Most of the patients were young with mean age of 31 years. Abdominal pain was the most common presentation i.e. 50 (100%) followed by fever and vomiting. Mass abdomen was found in 30(60%). Family history of TB was present in 25(50%). Thirty eight (76%) patients underwent laparotomy. Bands and adhesions were the most frequent findings on laparotomy.

Conclusion: Abdominal TB is more common in female and abdominal pain/ fever are the most common presentations.

Keywords: Abdominal tuberculosis, abdominal mass, laparotomy

INTRODUCTION

Tuberculosis (TB) continues to be a major health concern, especially in the developing world with more than 8 million new cases each year. In Pakistan, its prevalence is estimated to be 175 per 100,000 of population[1]. Abdominal tuberculosis is common in Pakistan and other tropical countries. Diagnosis of extra pulmonary tuberculosis is usually difficult because of varied presentation[2]. Delay in diagnosis due to failure to suspect the disease is not uncommon even in teaching hospitals of the West[3]. The frequency of extra-pulmonary tuberculosis has been reported to be as high as 20% of all tuberculosis cases. Abdominal tuberculosis may present clinically as an acute abdomen, either due to bowl obstruction, perforation or mass in right lower abdomen mimic acute appendicitis or appendicular mass[4,5,6]. Therefore, diagnosis of abdominal tuberculosis is usually made at laparoscopy or exploration of abdomen.

We planned this study to assess the spectrum of presentation of abdominal tuberculosis in cases presented in Ghurki Trust Teaching Hospital, Lahore.

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PATIENTS AND METHODS

This study was conducted at surgical unit of GTTH, Lahore from July 2006 to June 2009. All patients presenting to outpatient department or emergency department with clinical feature suggestive of abdominal tuberculosis (pain abdomen, vomiting, weight loss, evening pyrexia, anaemia and abdominal mass) were included in the study. All these patients were admitted and base line investigations performed. Ultra sound abdomen, X- ray erect abdomen and X-ray chest were also advised. On the basis of clinical presentation, patients were divided in two groups. Patients with acute abdomen (peritonitis, intestinal obstruction) were prepared for laparotomy and operated upon. Required surgical procedures were performed and tissue diagnoses were obtained. Patients with sub acute obstruction, chronic pain abdomen, and mass abdomen without peritonitis were managed conservatively. These patients were started on anti TB drugs on the basis of clinical presentation, x-ray findings of pulmonary tuberculosis, raised ESR or positive ICT. Patients who responded to anti TB medicine were considered to be suffering from abdominal tuberculosis after a successful empirical therapeutic trial. Empiric therapeutic trial was conducted for at least 3 months with standard four drugs regiment (isonicotinic acid

hydrazide, rifampin, pyrazinamide and ethambutol or streptomycin). They were sent home on 9 month course of Anti TB drugs and were advised to come for follow up twice a month. On reassessment good clinical response was considered as abdominal tuberculosis and anti-TB continued with monthly follow up. In case of no response, worsening of symptoms, development of peritonitis or intestinal obstruction patients were operated .Required surgical intervention performed and tissue was taken to establish diagnosis. Detailed history, family history, examination findings, results of investigations, operative findings of the histologically proven cases of abdominal tuberculosis were recorded on a separate proforma and analyzed.

RESULTS

The total number of patients was 50. The age range of patients was 17-62 years with mean age of 31 years. The majority of patients were females 34 (56.7%). Pain abdomen was the most common symptom 50 (100%) as shown in Table-1. Twenty five (50%) patients had family history of tuberculosis.

Table-1: Clinical presentation of patients (n=50)

Symptoms	No	%age
Pain abdomen	50	100
Distension	12	24
Vomiting	40	80
Altered bowel habit	25	50
Mass abdomen	30	60
Fever	45	90

On examination, mass abdomen in 30 (60%) patients. On x-ray chest 30 (60%) patients showed signs of pulmonary tuberculosis. In 4 patients sputum was positive for AFB. Low haemoglobin level was found in 25 (50%) patients. Raised ESR was found in 40 (80%) patients. ICT was positive in 40 (80%) patients. In four patients, we performed barium follow through and radiologist reported his contrast studies as thickening of terminal ileum and distortion of caecum suggestive of abdominal tuberculosis. X-ray abdomens were done in all cases. Multiple air fluid levels were found in 30 (60%) patients. In all of them there were bands and adhesions.

On the basis of clinical and laboratory assessment 30 patients underwent laparotomy. 20 patients were managed conservatively on standard 9 months course of anti TB and were advised to come for follow up monthly. On follow up[12] showed improvement with anti TB drugs while 06 patients were still in pain and tender in lower abdomen. Therefore they also underwent surgery. two patients lost in follow up. So total 30+6=36 (72%) treated surgically and tissue diagnosis was tuberculosis. Right hemicolectomy with ileocolic anastomosis was most common procedure followed by Adhenolysis and mesenteric lymph node biopsy as shown in Table-2. After surgery all the patients were discharged on 09 month course of ATT drugs.

Table-2: Various surgical procedures (n=36)

Surgical Procedure	No	%age
Right hemi colectomy with ileo colic anastomosis	12	33.3
Resection of stenosed segment and anastomosis	07	19.4
Adhenolysis and lymph node biopsy	10	26
Repair of perforation	05	8.4
Stricturoplasty	01	2.8
Temporary ileostomy	01	2.8

DISCUSSION

Tuberculous peritonitis appears to be more common in females than in males[7,8]. This observation was also made in our study. The increase frequency of female preponderance was reported not only in local Pakistani literature[2,3,9] but also in Western literature[8]. Tuberculosis in females commonly reaches the peritoneum through tubal infection and attacks the tubes during the sexually active period of life but in our socioeconomic set up poverty and male dominant society also had major contribution because diet of female is relatively deficient both quantitatively and qualitatively. The commonest presenting complaints in our study were pain abdomen and fever which correspond to other studies[7,11]. Vogel Y[8] had found extra pulmonary manifestation of tuberculosis in about 20.4% of cases in German population. The incidence of tuberculous peritonitis in Germany has been very low and tuberculosis of the intestinal tract was found in approximately 0.8% of tuberculosis cases in 2004. The 'golden rule' for a rapid diagnosis of tuberculous peritonitis is a laparoscopy-guided biopsy. But because of the anaesthetic and bleeding risk, laparoscopy-guided biopsy was not an immediately available option in Vogel Y et al study.[8] We also had comparable scenario as most of these cases are dealt as emergency where laparoscope is not available. Low haemoglobin was the most consistent laboratory finding in our study (25 patients) as reported by Rai S[10]. In our study adhesion and bands was most common finding followed by stenosis of distal ileal segment which is in contrast to other studies.[3,11] We encountered no mortality even in perforated cases which is at variance with other studies[12].

CONCLUSION

Abdominal tuberculosis is more common in females. The diagnosis can be difficult to make because of different spectrum of presentation. . Increased awareness of the magnitude of the problem, a high index of suspicion, early case identification and treatment are required in order to prevent morbidity and mortality.

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