

Abdominal Tuberculosis - a continuing challenge to the surgeon

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ABSTRACT

Objective: To determine various modes of presentation of abdominal tuberculosis on surgical floor and the outcome of different management strategies.

Design: Prospective study

Duration and place: The study was carried out from April 2005 to March 2007 at Mayo Hospital Lahore.

Patients and methods: The study included 100 patients. Investigations carried out included complete blood counts, ESR, Mantoux Test, chest x ray, abdominal x-ray erect and supine view, barium meal and /or follow through in selective cases. Patients who had signs of acute abdomen or frank peritonitis were operated upon after adequate resuscitation. Patients with acute intestinal obstruction were given conservative trial for at least 48 hours. But conservative treatment was abandoned in favour of surgery if patient deteriorated clinically. All patients received standard anti tuberculous therapy for 12 months afterwards. Specimens were sent for histopathology for definitive diagnosis.

Results: There were total 100 patients in the study. 43 were males and 57 were females. Age range was between 25 to 54 years with the median age of 34 years. Abdominal pain was the commonest presentation (82%). Total 83% patients were operated on. Commonest surgical procedure performed was loop ileostomy (64%). Post operative complications were seen in 17% of patients and the commonest complication was wound infection (47%).

Conclusion: Most of the patients who present with abdominal tuberculosis are females and relatively younger. Majority of patients require surgical intervention which results in significant morbidity and at times mortality.

Keywords: Abdominal tuberculous, surgeon

INTRODUCTION

Abdominal tuberculosis is a very serious health problem in this part of the world though it is not that common in western hemisphere and elsewhere in the developed world^{1,2,3}. Epidemiologically its incidence seems very well related to poverty, ignorance, unawareness, poor hygiene and malnourishment, all these factors rife in the third world. There are 8-9 million cases diagnosed each year world wide and 2-3 million deaths yearly are attributed to this disease alone⁴.

Causative organism for Intestinal tuberculosis remains mycobacterium tuberculosis. Its access to intestines is the result of ingesting infected milk, swallowing infected sputum, through hematogenous route or spread from adjacent involved organs.

Current rise in the incidence of tuberculosis is attributed to increasing number of patients with HIV infection. Late diagnosis, inadequate dosage of antituberculous drugs has led to multidrug resistant form of disease which is a challenge for health care providers to deal with.

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The following study is an effort to re visit the current status of tuberculosis on surgical floor in terms of presentation and various strategies employed for its management with their outcomes.

PATIENTS AND METHODS

This was prospective study conducted from April 2005 to March 2007 on surgical floors of Mayo Hospital Lahore. All patients with abdominal tuberculosis were included in the study. Diagnosis was based on history, physical examination and investigations. Investigations included complete blood counts, ESR, Montoux test, Chest x ray, X ray abdomen both erect and supine view, barium enema and/ or barium follow through in selected cases. Those patients who presented with signs of frank peritonitis were assumed to have perforated gut and were operated after adequate resuscitation. Likewise patients who presented with acute intestinal obstruction were also operated upon if they failed to respond favourably after being through conservative trial for at least 48 hours. Conservative trial, however, had to be abandoned much sooner if there was evidence of toxaemia, increasing abdominal distension, spreading abdominal pain, tenderness

and rigidity etc. During the operation, extent of the disease, segment of gut involved, number of perforations, enlarged mesenteric lymph nodes and presence or absence of ascites was look for. Procedures performed included stricturoplasty, resection anastomosis, ileostomies etc, depending on the intraoperative findings. Specimens collected were sent for histopathology which was the basis for final diagnosis. All patients received full course of standard anti tuberculosis therapy for 12 months.

RESULTS

There were total 100 patients in this study. 43 were males and 57 were females. Age range was from 25 to 45. Family history was positive in 25% of patients and only in 7% of patients, we could trace a positive past history.

Investigations revealed raised ESR in 78% of patients while 85% of patients were anaemic. Contrast studies were suggestive in only 6% of cases. There was evidence of concomitant pulmonary tuberculosis in 12% of patients.

Abdominal pain alone was the commonest mode of presentation (82%) followed by features indicating intestinal obstruction of varying severity (51%) and signs of frank peritonitis (35%). Total 83 patients were operated upon. Seventy five patients were decided to undergo operation after initial assessment and due management while eight patients were given conservative trial as they had sub acute intestinal obstruction and stable vitals at presentation. Conservative treatment had to be abandoned in favour of surgery, however, given their static or deteriorating condition clinically.

Table 1: Presenting complaints for patients (n=100).

Presenting complaints	=n	%age
Abdominal pain	82	82%
Fever	80	80%
Altered bowel habits	70	70%
Nausea, vomiting	65	65%
Mass abdomen	10	10%

Table 2: Surgical procedures done (n=83).

Procedure	=n
Loop ileostomy	53(64%)
Stricturoplasty	17(20%)
Right hemicolectomy	9(10%)
Adhesionolysis	43(51%)

Table 3: Post operative complications (n=83).

Complication	=n	%age
Wound infection	39	47%
Chest infections	34	41%
Abdominal dehiscence	3	4%

Operative procedure selected was according to intra operative situation and the commonest procedure performed was formation of loop ileostomy (64%). Seventeen patients had post operative complications. Wound infection was the commonest post operative complication (47%) followed by chest infections (41%).

DISCUSSION

This disease is primarily affecting young age group as median age of the patients in our study was 34 years and the majority comprises females. Predisposition of females for this disease is apparently due to their socially deprived and inferior position which leads to unawareness and malnourishment. Many local and international studies endorse these results^{5,6,7,8,9,15}. The incidence of associated pulmonary tuberculosis is less than expected in our study (12%) while Tariq et al and R Sheikh et al has reported this association in 23% and 21% of cases respectively in their studies^{10,11,12}. Ramesh Kumar et al reported an incidence of 8% of associated pulmonary tuberculosis¹¹.

In our study 83% of patients ultimately required surgical intervention which is close to the figure given in study by Shabana Jamal et al (95%) but is at variance with the results reported by R Sheikh et al (61%)^{12,13,14}. Sircar et al in their study reported surgical intervention in 21% of the cases¹³.

We encountered 58% of patients with frank peritonitis due to intestinal perforation intraoperatively while Shabana et al reported a relatively higher incidence (68.2%). In certain other studies, however, strictures have been rather more common finding on opening abdomen¹⁶.

Post operative complications were reported in 20% of our patients and the wound infection was the commonest complication found in 47% of these patients. Shabana Jamal et al has reported 50% incidence of wound infection in 13% of their patients who had post operative complications¹³.

Abdominal pain (82%) has been the commonest mode of presentation in our study followed by fever (80%) and altered bowel habits (73%). Almost similar findings are reported by R Sheikh et al in their study except that they found mass in right iliac fossa in 41% of cases as opposed to our only 10% of such cases¹².

In hospital mortality was 5% in our study and all of the cases were found to have frank peritonitis. Similar results are reported by Shabana Jamal et al (4%) but R Sheikh reported 15% and R Kumar et al reported 8% in -hospital mortality^{12,13,16}.

CONCLUSION

Abdominal tuberculosis is still the commonest health problem presenting in many disguises both on surgical and medical floor. Its presentation on surgical floor remains unchanged over last ten years and management strategies employed are also no different from what used to be advocated in the past. Morbidity and mortality rates are quite high once patients develop problems which need surgical solutions.

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