DOI: https://doi.org/10.53350/pjmhs22168353

ORIGINAL ARTICLE

Gender Prevalence and Management of Small Bowel Tuberculosis at Tertiary Care Hospital Nawabshah

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ABSTRACT

Introduction: Abdominal tuberculosis has higher incidence particularly in developing countries. The challenge to Surgeon is to diagnose it as its presentation is very vague and diagnostic tools are dubious.[1] Biochemical analysis helps a little bit in this regard. The abdominal tuberculosis which is not so commonly seen as pulmonary TB can be a source of significant morbidity and mortality and is usually diagnosed as late due to its non specific clinical presentation. About 15 to 25% of cases with abdominal tuberculosis here concomitant pulmonary TB.[2] Any part of GIT can be affected but it is usually small bowel and sometimes a colon which is affected barium study has some role in diagnosing the ileal tuberculosis and then is on laparoscopic examination.[3]

Patients and Methods: This is a cross sectional study conducted at People Medical College Hospital Nawabshah. It was conducted in Surgical Unit 1 from January 2019 to December 2021. All the patients admitted in the ward came through OPD or through emergency. History was taken and proper examination of abdomen apart from systemic examination was done. Routine investigations were done. specific investigations like Liver function test (LFT) and serum electrolytes were done. Radiological investigations like ultrasound and x ray chest abdomen in erect and supine posture were done. Diagnosis was made and surgical intervention was done.

Results: Total 30 patients were included in this study. Age of patients was between 20-50 years. 9(30%) patients aged between 20-3- years. 10 (33.3%) were of age between 31-40 years and 11 were aged between 41-50 years. Higher prevalence was in 4th and 5th decade of life. Patients with acute emergency were treated by Exploratory Laparotomy. Per operative findings showed stricture in 14 (47%) patients that were treated with resection and end to end anstomosis. 13 (43%) patients had single as well as multiple perforations of more than 4-5 cm in sizes with contamination of contents in abdominal cavity. Covering ileostomy was made in these patients. 3 (10%) patients' perforations were of .5 to 1 cm with lesser contamination of abdominal cavity. Primary repair was made in these patients.

Conclusion: It is concluded that Higher prevalence was in 4th and 5th decade of life. Its prevalence in female is higher as compared to male. .Majority of the patients with Abdominal Tb were treated by resection and end to end anastomisis.

Keywords: Prevalence , Gender, Abdominal Tuberculosis, Resection, Anastomosis.

INTRODUCTION

Tuberculosis is a life threatening disease which can affect any organ in the body. Global burden of tuberculosis is nearly 12 millions with estimated 8.6 millions annual incidences due to prevalence of immune compromised patients. [4]

It is an infectious disease caused by Mycobacterium Tuberculosis. The primary site of tuberculosis is usually lung from which it can get disseminated to other parts of body. The diagnosis of extra pulmonary tuberculosis can be difficult as it presents with non specific clinical and radiological features and requires high degree of suspicion for the diagnosis.[5] The abdominal tuberculosis which is not so commonly seen as pulmonary TB can be a source of significant morbidity and mortality and is usually diagnosed as late due to its non specific clinical presentation.[6] About 15 to 25% of cases with abdominal tuberculosis here concomitant pulmonary TB. Any part of GIT can be affected but it is usually small bowel and sometimes a colon which is affected barium study has some role in diagnosing the ileal tuberculosis and then is on laparoscopic examination.[7,8]

The most common clinical features is abdominal pain, irregular low grade fever with night sweats and loss of weight. Abdominal pain has usually chronic history but it can also present as acute.[9,10] Weight loss often occurs sue to chronic inflammatory process, decreased absorption and poor intake of the patient. Anemia can also be a feature. Chronic diarrhea and constipation can also be symptoms. Complications of this disease are stricture, perforation, stricture and bleeding. [11,12]

The management can be conservative and surgical. If diagnosis is clear and patient is not in acute emergency, abdominal tuberculosis is treated conservatively.[13] Surgical options can be applied when the presentation is acute surgical emergency. Postoperatively, fecal fistula can be the fatal complication that is treated according to its output either it is low output fistula or high one. [14,15] Rationale of Study is to evaluate the prevalence and management options and their outcome so that patients are saved by decreasing prevalence and better management.

MATERIALS AND METHODS

This is a cross sectional study conducted at People Medical College Hospital Nawabshah. It was conducted in Surgical Unit 1 from January 2019 to December 2021. All the patients admitted in the ward came through OPD or through emergency. History was taken and proper examination of abdomen apart from systemic examination was done. Routine investigations were done. specific investigations like Liver function test (LFT) and serum electrolytes were done. Radiological investigations like ultrasound and x ray chest abdomen in erect and supine posture were done. Diagnosis was made. Patients were shifted to main operation theater for the intervention. Computed Tomography scan was advised in suspected patients.

Physical Examination: On examination these patients due to acute illness were dehydrated , anemic and fatigue. Abdominal distention was a constant feature along with generalized tenderness and tympanic node on percussion with flank fullness. No Confirmatory diagnosis was made as it is suspicion of intestinal tuberculosis. All patients were resuscitated by putting I/V line and by naso gastric tube. After resuscitation and balancing electrolyte and fluid replacement patients were submitted to laparotomy.

RESULTS

In our study, total 30 patients admitted in surgical ward of PMCH Nawabshah. Age of patients was between 20-50 years. 9(30%)

patients aged between 20-3- years. 10 (33.3%) were of age between 31-40 years and 11 were aged between 41-50 years. Higher prevalence was in 4th and 5th decade of life. Gender ratio was little bit different. Prevalence was higher in females. 14 (47%) were male and 16 (53%) were female (TABLE No.1).

According to the presentation of patients, they were treated. Of 30 patients, 7 (23%) patients presented with mild abdominal pain, constipation and mild ascites that were treated conservatively on the basis of clinical history, examination and all other diagnostic tools. 21(77%) patients presented with intestinal obstruction and intestinal perforations who were treated with Exploratory Laparotomy (TABLE No.1).

Patients with acute emergency were treated by Exploratory Laparotomy. Per operative findings showed stricture in 12 (52%) patients that were treated with resection and end to end anstomosis. 9 (40%) patients had single as well as multiple perforations of more than 4-5 cm in sizes with contamination of contents in abdominal cavity. Covering ileostomy was made in these patients. 2(8%) patients' perforations were of 0.5 to 1 cm with lesser contamination of abdominal cavity. Primary repair was made in these patients (Chart No.1). Prognosis was good in all patients. Only 1 (0.33%) patient expired due to the element of sepsis.

Table-1: Descriptive Statistics (n=65)

Variable	Frequency (n)	Percentage (%)
AGE (Years)		
• 20-30 years	9	30%
• 31-40 years	10	33.3 %
• 41-50 years	11	36.7%
Gender		
• Male	14	47%
• Female	16	53%
Treatment Options		
• Surgical	23	77%
• Non Surgical	7	23%
Per Operative Findings		
• Single Small Perforation	2	8%
• Single/Multiple Large Perforation	9	40%
• Stricture	12	52%

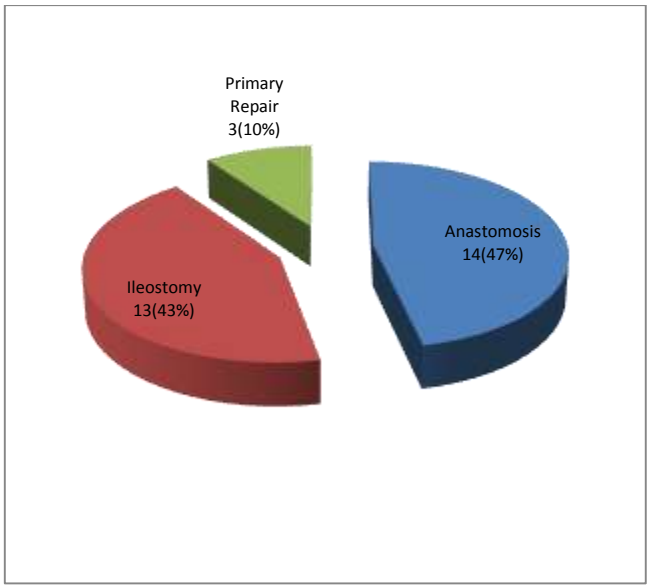

Chart 1: Surgical Options

DISCUSSION

Intestinal tuberculosis is quite a common abdominal condition but difficult to diagnose.[16] Majority of the surgical tuberculosis patients present with intestinal obstruction which is most common complication which can be due to stricture formation. Abdominal TB can occur at any age.[17] In one study, the age of patients was between 21-45 years. In another study, mean age was 28.21+_5.75 years. In my study, the age was between 20-50 years. Mean age was 40+_ Gender difference was also seen in patients. In a study, 47.21% were male and 52.78% were female.[18] In my study, 47% were male and 53% were females.

Abdominal TB is generally treated by medication so that un necessary intervention could be avoided. After invention of Anti Tuberculosis treatment, surgery is indicated in cases of intestinal obstruction, perforation of intestine, abscess or fistula formation.[19] Even in cases of stricture, medical therapy results in resolution. Endoscopic balloon dilatation is also option. The surgeries performed in Abdominal TB are of three types.[20] First is covering ileostomy and its reversal on its time . right hemicolectomy can also be performed. Third one is stricturoplasty. In a study, 76% Abdominal TB with intestinal obstruction were treated by surgery and 24% were treated conservatively. In another study, all cases presented with perforations and obstructive stricture that were treated by interventions. 82% underwent resection and anastomosis and 18% were treated by making external fistulas in form of ileostomy. In my study, 76.7% patients were treated by surgical intervention and 23.3% with non surgical options. In a study, 61% underwent resection and end to end anastomosis, 3% were treated by Primary repair and 36% had ileostomy be made. In another study, resection and anstomosis was made in 75% patients, covering ileostomy was made in 7% and not a single patient was repaired primarily. In my study, 52% were treated by resection and end to end anastomosis, 40% underwent covering ileostomy and 8% were treated by primary repair. [21,22]

CONCLUSION

It is concluded that Higher prevalence was in 4th and 5th decade of life. Its prevalence in female is higher as compared to male. .Majority of the patients with Abdominal Tb were treated by resection and end to end anastomisis.

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