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A DESCRIPTIVE STUDY OF MANAGEMENT OF ABDOMINAL TUBERCULOSIS

General Surgery

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ABSTRACT

Introduction : Abdominal Tuberculosis in all its grandeur still rules the roost in third world countries like ours. The main objective of this study is to identify the changes that may have occurred over time in the presentation and treatment of this disease.

Material and Methods : This prospective study on 50 patients was carried out at Indira Gandhi Institute Of Medical Sciences, Patna admitted from October 2016 to September 2017 in the surgery wards. Only those patients in whom abdominal tuberculosis was confirmed by imaging or histopathology were included in this study. A meticulous record of the demography, presentation, investigation and treatment was maintained in a previously prepared proforma for this purpose. All relevant data was analyzed using SPSS software version 17.

Results : 30 (60%) patients were male and 20 (40%) were female with age ranging from 11-60 years. All patients belonged to a low socioeconomic group. 18 (36%) patients presented in the emergency as complete intestinal obstruction, 8 (16%) had incomplete bowel obstruction and 5 (10%) presented with bowel perforation, all diagnosed on plain x-ray abdomen (AP view). The rest 19 (38%) patients were diagnosed on abdominal ultra sonographic findings of ascites, ileocaecal mass/ abscess, thickened terminal ileum. Only 10 (20%) required CECT for further clarification. 15 (30%) of all patients were treated conservatively. Adhesiolysis in 10 (20%) was the commonest surgical procedure performed.

Conclusion : Abdominal tuberculosis in our region should always be considered in patients presenting with small bowel obstruction or chronic ascites of unknown etiology. Anti tubercular treatment 2(HRZE) / 4(HR) for a minimum of 6 months is all that is required in most patients.

KEYWORDS

Abdominal Tuberculosis, Anti Tubercular Treatment,

INTRODUCTION

Abdominal Tuberculosis by definition includes the involvement of the gastrointestinal tract, peritoneum, mesentery and its nodes. Solid viscera, liver / spleen and pancreas can also be rarely involved.[1] 11-16% of all cases of tuberculosis are extrapulmonary, of which 3-4% are abdominal tuberculosis.[2] Primary tuberculosis of intestine without antecedent or associated pulmonary tuberculosis is also fairly common.[3] Both the incidence and severity of abdominal tuberculosis are expected to increase with the increasing incidence of HIV infection in India.[4] The present study was carried out to review the clinical spectrum of the disease, diagnostic dilemmas and surgical treatment of the same in our economically deprived region.

MATERIAL AND METHODS

This prospective study on Abdominal Tuberculosis was conducted at the Department Of General Surgery , Indira Gandhi Institute of Medical Sciences , Sheikhpura , Patna from October 2016 to September 2017. A total of 50 patients with proven abdominal tuberculosis were included in this study. All patients were evaluated with a meticulously taken history and thorough physical examination. Investigations included Complete Blood Count (Hb, TLC, DLC), ESR, LFT, Mantoux test, Chest X-ray (PA view), Abdominal x-ray (AP view) and Abdominal Ultrasonography. Laparoscopy, Ascitic fluid examination and Computed tomography were carried out in selected patients as per requirement. In cases where a tissue specimen was available, a definitive histopathological lesion characteristic of tuberculosis (presence of epithelioid granuloma, caseation, Langhans giant cells) in the diseased abdominal segment or in the draining lymph node was taken as confirmatory evidence of the disease. All patients were put on anti tubercular therapy 2(HRZE) / 4(HR) for a minimum of 6 months as part of conservative treatment or soon after surgery.

Exclusion Criteria : Genitourinary Tuberculosis

RESULTS

Out of 50 patients included in this study, 30 (60%) were male and 20 (40%) were female with age ranging from 11-60 years (Figure 1).

All patients belonged to low socioeconomic group with an average family income of Rs 5000/-per month. The commonest presentation was pain in abdomen in 33 (66%) and abdominal distension in 25 (50%) patients. Only 8 (16%) patients had an abdominal lump (Table 1). In the emergency, complete small bowel obstruction was seen in 18 (36%) patients. Other emergency presentation was incomplete bowel obstruction in 8 (16%) and ileal perforation at or above a complete stricture in 5 (10%) patients (Figure 2). 8 (16%) patients were anaemic with hemoglobin below 8 gm% and 10 (20%) had raised ESR. Ascitic fluid analysis revealing a high lymphocyte count and adenosine deaminase above 36I U/L was diagnostic in 5 (10%) patients. Radiological findings on chest X-ray revealed associated pulmonary tuberculosis in 3 (6%) patients. Intestinal obstruction and perforation was diagnosed on plain X-ray abdomen. Ultrasonographical findings of ascitis, ileocaecal mass/ abscess, thickened terminal ileum were used to diagnose 19 (38%) patients. CECT was required in 10 (20%) patients to clarify diagnostic dilemmas. Ileo-ileal intussusception in 1 (2%) patient, cholelithiasis in 10 (20%) and splenic abscess in 1 (2%) patient were other incidental findings. 15 (30%) of all patients were treated conservatively. Adhesiolysis in 10 (20%) was the commonest surgical procedure performed. 8 (16%) required drainage of an intra abdominal abscess. Ileostomy exteriorization of the perforation in 4 (8%) and resection anastomsis for stricture in the terminal ileum in 5 (10%) patients were the other common procedures performed. 8 (16%) patients underwent diagnostic laparoscopy with peritoneal, mesenteric lymph node or omental biopsy (Figure 3). 24 cm of the terminal ileum and the ileocaecal junction was the only area involved in our study. 13 (26%) patients were diagnosed on histopathological findings of epithelioid granuloma, caseation, Langhans giant cells in mesenteric lymph nodes, peritoneal and intestinal biopsy. Wound infection in 15 (30%) patients was the commonest post operative complication. 3 (6%) patients developed incisional hernia. No patient was HIV positive. The average hospital stay was 15 days. There was no mortality in this series. All patients were put on anti tubercular therapy 2 (HRZE) / 4(HR) for minimum of 6 months .

Signs and Symptoms	Number of patients	%
Pain in Abdomen	33	66
Abdominal Distention	25	50
Vomiting	18	36
Constipation	14	28
Fever	06	12
Abdominal Lump	08	16
Ascitis	04	08
Loss of Appetite	04	08

Table 1: Sign and Symptoms of Abdominal Tuberculosis (n=50)

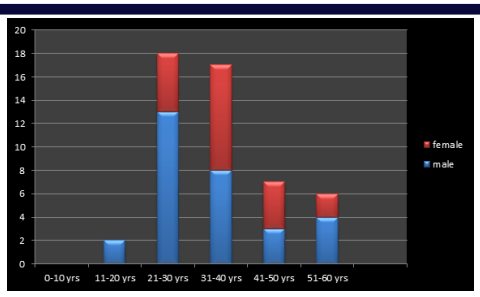

Figure 1 : Age and Sex distribution in abdominal tuberculosis

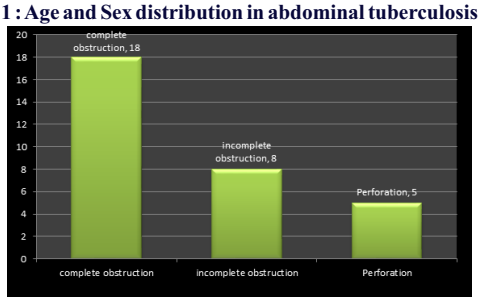

Figure 2 : Presentation at Emergency

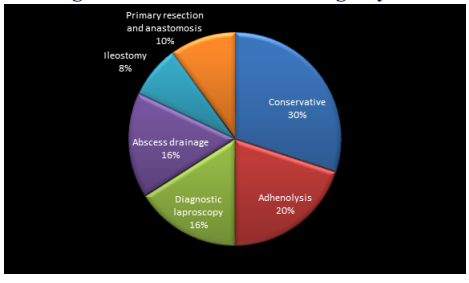

Figure 3 : Treatment Procedure for Abdominal Tuberculosis

DISCUSSION

Abdominal tuberculosis is the sixth commonest extra pulmonary site for the disease.[5] Abdominal tuberculosis can occur at any age and the mean age of 35 years in the present study reflects the observations of another study from Pakistan where the mean age was 28.21 ± 5.75 years.[6] Majority of patients in our study belonged to poor socioeconomic class. Poor nutritional status, lack of health facilities and poor pasteurization of milk are contributors to this problem.[7] Abdominal pain was the commonest presentation in our patients (66%) as has been recorded by others.[8] Intestinal obstruction seen in 26 (52%) patients was the commonest cause for which the patient presented in the emergency, a finding corroborated in other studies.[9] This is in sharp contrast to that reported in the western literature where abdominal tuberculosis as a cause of mechanical obstruction is very rare.[10] Ileal perforation usually occur at or proximal to a stricture, the same seen in our patients.[11] The terminal ileum and the ileocaecal region were the only areas involved in our study and is in contrast to other studies where other areas of the gut albeit rarely were also involved.[12] Pulmonary tuberculosis was an associated finding in only 3 (6%) of our patients . An Indian study had 34.78% associated pulmonary tuberculosis.[13] Ultrasonography was used to diagnose 19 (38%) of our patients whereas only 4% were diagnosed on ultrasound imaging in another study from Pakistan.[14] Adhesiolysis in 10 (20%) was the commonest surgical procedure performed. Intrabdominal abscess drainage in 8 (16%), ileostomy exteriorization of the perforation in 4 (8%) and resection anastomsis for strictures in the terminal ileum in 5 (10%) patients were the other common procedures performed. Ileostomy was the commonest procedure in a study from Pakistan.[15] All patients were put on anti tubercular therapy 2(HRZE) / 4(HR) for a minimum of 6 months which is the current recommendation.[16] No patient had associated HIV infection which does not confirm to other studies.[17].

CONCLUSION

Abdominal tuberculosis should always be considered in the differential diagnosis of patients with altered bowel habits, small bowel obstruction and ascitis of unknown origin in our region. Tubercular adhesions are the commonest cause of small bowel obstruction in the emergency. Exteriorization of the perforation may be safer in the setting of faecal peritonitis. A 6 month regime of 2(HRZE) / 4(HR) is the current recommendation for anti tubercular treatment of abdominal tuberculosis.

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