

**Abdominal Tuberculosis: A Clinicopathologic Study in Medical College Hospital Bikaner Rajasthan**Dr. Kedar Nath¹, Dr. Deepak Meena², Dr.G.L.Meena³¹Senior Specialist, ²Resident Doctor, ³Senior Professor.¹Department of General Surgery PBM Hospital Bikaner,²Department of Dental Mahatma Gandhi Hospital, Jaipur.³Department of Radiology, PBM Hospital Bikaner.**Correspondence Author: Dr. Deepak Meena**, Department of Dental Mahatma Gandhi Hospital, Jaipur.**Conflicts of Interest:** None to Declare**Abstract**

Background: Tuberculosis is a major health hazard in India. Because of its diverse manifestations, difficult diagnosis, widespread complications, prolonged morbidity and increased mortality the study of this disease becomes even more important.

Methods: This study was carried out in 50 patients of abdominal tuberculosis of different age group and sex admitted in Department of Surgery, PBM Hospital, S.P. Medical College, Bikaner, during the period from 2015 to 2016. The patients of abdominal tuberculosis fell into two broad categories - those presenting with acute/sub-acute intestinal obstruction and those without obstruction. All patients were worked up with the elicitation of proper history, clinical examination, laboratory investigation, etc. The diagnosis was confirmed by IgM ELISA for tuberculosis, peritoneocentesis, FNAC, laparotomy and biopsy of the specimen obtained at the time of surgery.

Results: Maximum incidence of abdominal tuberculosis was noted in third and fourth decades followed by second decade of life. Males constituted 60% and females constituted 40% of total patients. Abdominal pain, anorexia, weight loss, weakness, vomiting and constipation were the main presenting symptoms. IgM ELISA for tuberculosis was positive in 40 patients

(80.00%). Surgical intervention was required in 36% of the patients.

Conclusions: Good clinicopathological workup in patients of abdominal tuberculosis results in earlier diagnosis and timely management of this curable disease.

Keywords: Abdominal tuberculosis, Clinicopathologic study, Workup.

Introduction

Tuberculosis is a specific infectious disease caused by Mycobacterium tuberculosis. It is still a worldwide public health problem despite the fact that the causative organism was discovered more than 100 years ago (in 1882 by Robert Koch). This disease commonly affects lungs and causes pulmonary tuberculosis but it can also affect intestines, meninges, bones and joints, lymph glands, skin and other tissues of the body. Among the extra pulmonary forms of the disease abdominal tuberculosis continues to be a major scourge in the developing countries. This disease was common in the western world during 18th, 19th and first half of 20th century, but with the advent of new more efficacious antitubercular drugs, effective vaccination, pasteurization, better hygiene and raised standards of living, the disease has become rare in the developed countries. However, with the reports that AIDS patients are more susceptible to tuberculosis especially

extrapulmonary variety, abdominal tuberculosis had made a comeback in the developed nations too.¹

For containment of tuberculosis infection in an individual, intact cellular immunity is required and HIV is the most important risk factor for progression of dormant tuberculosis infection to clinical disease, because of its ability to destroy the immune system.²

Tuberculosis is a major health hazard in India.³ It is because of the widely prevailing co-existing malnutrition, poverty, overcrowding and lack of medical facilities in certain areas. Abdominal tuberculosis may involve the gastrointestinal tract, peritoneal and mesenteric lymph nodes. Commonest sites of involvement are the terminal ileum and ileo-caecal region followed by jejunum and colon. Multiple sites of involvement are common.

Methods

This study was carried out in 50 patients of abdominal tuberculosis of different age group and sex admitted in Department of Surgery, PBM Hospital, S.P. Medical College, Bikaner during the period from 2015 to 2016.

The patients of abdominal tuberculosis fell into two broad categories - those presenting with acute/sub-acute intestinal obstruction and those without obstruction. In patients with acute presentation who had to be operated on an emergency basis, routine investigations could not be done and diagnosis was made after laparotomy and biopsy of the tissue obtained during surgery, where as those patients who responded to conservative management and were not operated, were further evaluated for tubercular lesions in the abdomen after the acute symptoms abated.

Chronic group of cases were worked up with the elicitation of proper history, clinical examination, laboratory investigation, etc. In these cases, surgery was undertaken if there were associated features of intestinal obstruction or if diagnosis was doubtful.

Barium follow through was done in those patients who were suspected to be having small bowel lesions and serial abdominal films were taken at hourly interval. These films were then analyzed for movement of the contrast, disparity in the lumen of the gut, dilatation of small gut loops, level of obstruction, time interval taken by the barium to reach the right colon. Barium enema was done in those patients, where the large bowel lesions were suspected.

All the patients were subjected to a series of routine and specific investigations. The diagnosis was confirmed by IgM ELISA for tuberculosis, peritoneocentesis, FNAC, laparotomy and biopsy of the specimen obtained at the time of surgery.

Results

The age of patients ranged from 3-75 years and majority of patients were in the age group of 31-40 years i.e., 28% followed by 28% in 21-30 years. Males constituted 60% and females constituted 40% of total patients. 32% of total patients were associated with pulmonary tuberculosis (active and healed). 18% patients were associated with active pulmonary tuberculosis and 12% patients were associated with healed pulmonary tuberculosis and they had already received antituberculosis chemotherapy. None of the patients in this study had history of extra pulmonary tuberculosis

Table 1: Symptoms at presentation in the present study.

Symptoms	No. of patients
Pain abdomen	45(90.00%)
Fever	24(48.00%)
Vomiting	35(70.00%)
Constipation	25(50.00%)
Diarrhoea	6(12.00%)
Anorexia	31(62.00%)
Weight loss	34(68.00%)

Table 2: Signs in patients presenting with abdominal tuberculosis in the present study.

Signs	No. of patients
Pallor	40(80.00%)
Lymphadenopathy (Cervical)	11(22.00%)
Chest signs	6(12.00%)
Abdominal distention	35(70.00%)
Abdominal tenderness	42(84.00%)
Lump abdomen	13(26.00%)
Ascite	4(8.00%)

Table 3: IgM ELISA for tuberculosis.

Result	No. of patients
Positive	40(80.00%)
Negative	4(8.00%)
Total	44(88.00%)

Table 4: Radiological findings on Barium contrast study of abdomen.(N=20).

Findings	No.of patients
Ileocecal irregularity with pulled up caecum	8
Strictures of terminal ileum	5
Multiple narrowed and dilated segments of small gut	3
Normal	4

Table 5: Indications for surgery.

Diagnosis	No. of patient
Intestinal obstruction	14(28.00%)
Peritonitis	2(4.00%)
For diagnosis of lump	2(4.00%)

Discussion

28% of patients were in the fourth decade and 28% in third decade. This was similar to study by Agarwal S et al.

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General symptoms like weight loss, anorexia and weakness have been reported by varying number of

patients. In our study among general symptoms weight loss, anorexia and weakness were most common Similar observations have been made by Ghaffar ANU et al and Bernhard JS et al.⁵

In the present study, abdominal pain was the common presenting symptom and was observed in 90% of the patients. The pain was more commonly localized in right iliac fossa and umbilical region. This is so probably because the ileocecal region is the commonest site of involvement in intestinal tuberculosis. Abdominal pain is more commonly seen in patients presented with acute symptoms as compared to patients presented with chronic symptoms. This is similar to study by Bernhard JS et al.⁵ In our study, vomiting was the next common presenting feature seen in 70% of patients. This was similar to study by Anand and Pathak.⁶ Constipation was found in 50% of the cases similar to study by Dass and Shukla.⁷ Abdominal distention was present in 70% of the cases, which was similar to study by Dass and Shukla.⁷

In the present study, 30% of the patients had associated with pulmonary tuberculosis, which was similar to study by Pettengel KE et al.⁸ Evidence of involvement of ileocecal region was the commonest finding seen in contrast studies of GIT, which was similar to studies by Lewis.¹¹

Conclusion

Good clinicopathological workup in patients of abdominal tuberculosis results in earlier diagnosis and timely management of this curable disease.

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