



## ABDOMINAL TUBERCULOSIS- A SURGICAL EMERGENCY IN THE TERTIARY CENTRE

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**ABSTRACT** Abdominal tuberculosis is a disease of middle age people. It usually presents with abdominal pain and vomiting and tenderness in right lower quadrant of the abdomen. The aim of the study is to find the various mode of presentation, diagnosis, and management of surgical emergency of the tubercular abdomen. A total of forty patient who presented in surgical emergency with a diagnosis of abdominal tuberculosis were studied in period February 2015 to June 2017. Each patient was evaluated thoroughly regarding clinical history, physical examination. A routine and special investigation like ELISA, PCR, Ba study were conducted for each patient. Most common age of presentation was between 30 to 40 with male preponderance. 16% of the patient had concomitant pulmonary tuberculosis. Out of forty 10(25%) were managed conservatively with ATT. Altogether 30(75%) patient needed surgery for complication of abdominal tuberculosis followed by ATT.

**KEYWORDS :** Abominal tuberculosis, Surgical emergency, Pulmonary tuberculosis

### INTRODUCTION:

India covers nearly 26 percent of tuberculosis cases and 37 percent of tuberculosis death in the world. Postmortem research has indicated the involvement of abdominal infections in 80% of the death caused by pulmonary tuberculosis [1][2]. Abdominal tuberculosis involves gastrointestinal(GI) tract infections, abdominal lymph nodes, liver, pancreas, spleen, peritoneum, and mesentery. Genitourinary and adrenal disease are excluded [3][4][5]. In general patients present with complications of perforation, obstruction, or bleeding. The diagnosis of the disease becomes very difficult in the area with fewer patients with pulmonary tuberculosis or a positive skin test [6][7][8].

The gastrointestinal tract is a sixth most common cause of extrapulmonary tuberculosis. It is caused due to the involvement of pathogen *Mycobacterium tuberculosis*. This infection can be acquired in many ways, which includes infection of pulmonary tuberculosis in childhood, spread from infected organs such as fallopian tubes, infected mesenteric lymph nodes and infections transferred from tubercular granulomas of a liver.[9][10]. Usually, symptoms are nonspecific and patient present late for treatment. Any portion of the gut may be involved but terminal ileum and caecum are most common site involved in the extra pulmonary tuberculosis[11][12]. Gross pathology, in this case, is a transverse ulcer, fibrosis, and stricture of the wall. The hematological test is generally nonspecific. The scanning techniques such as abdominal X-ray may show multiple fluid levels, dilated bowel loop. In general, Surgery remains the only option for acute intestinal obstruction, perforation or peritonitis. Commonly performed surgical procedure are adhesiolysis, peritoneal and lymph node biopsy, stricturoplasty, ileotransverse anastomosis and right hemicolectomy. In most of the cases, all the patients were given antitubercular treatment[13][14][15][16]. Here, we describe the various mode of presentation, diagnosis, and management of patients with acute abdominal tuberculosis and treatment using various surgical procedures.

### Material & Method:

Altogether 40 patient were studied prospectively who presented in surgical emergency of SKMCH, Muzaffarpur from Feb2015 to June 2017. All the patient were evaluated regarding clinical history and examination and investigated thoroughly. After proper investigation 30(75%) were operated in surgical emergency 10(25%) were managed conservatively. Surgery was required in patient presenting with acute intestinal obstruction or perforation peritonitis. All the patient were given antitubercular drugs.

### Results and Discussion

The clinical manifestation of the patients involved in this study are described in Table-1 and Table 2. There were 24 ( 60%) male and 16 (40%) female. The age of patient ranged from 15 to 70 year majority being in second to four decades of life. The clinical manifestation of the patients involved in this study are described in Table-1 and Table 2. Among all the subjects (patients) 16% had pulmonary tuberculosis, which is in consistence with literatue showing 10-15% had

concomitant pulmonary tuberculosis. Abdominal pain was the most common symptom (85%) followed by weight loss (80%), vomiting (60%), constipation (50%) and fever (45%). Pain was mostly located in right iliac fossa. Abdominal tenderness was the commonest sign present in 80% of cases. Ascites was present in 6(15%) cases while distension of abdomen was present in 18 (45%) cases. Abdominal lump was felt in right iliac fossa in 8 (20%) cases. Pallor was present in 30 (75%) cases. PCR of blood and ascetic fluid was done which was highly sensitive. Table-3 describes the site of involvement of abdominal tuberculosis in the patients. Ileocaecal region was most commonly involved site (25%) which is in consistence with the literature[12][13]. IgM ELISA and PCR were positive in 35% and 70% of patient. X-RAY showed dilated gut loops ,multiple fluid level, multiple in 20% and 32% of cases. The treatment procedures started with subjecting 10 patients with confirmed diagnosis on ATT. Patient condition improved in consistency with observation made by other author[6][7]. However majority 30( 75%) pt required emergency laparotomy for acute intestinal obstruction,intestinal perforation and peritonitis. Ahesiolysis with peritoneal and lymph node biopsy was most commonly performed procedure. Ten patient were managed with antitubercular treatment only and (75%) required surgery followed by antitubercular therapy. Emergency surgical procedure adhesiolysis of gut in 12 patients, peritoneal and lymph node biopsy in 6 cases, strictureplasty in 4 cases, ileotransverse anastomosis in 3 cases, resection and anastomosis in 3 cases and right hemicolectomy in 2 patient were performed. Most common site of involvement was caecum and terminal ileum. Histopathology confirmed diagnosis in 96% of cases. All the 40 patient were treated with antitubercular therapy using rifampicin, isoniazid and pyrazinamide for the first 2 month and rifampicin and isoniazide for the next 4 month. Postoperative complication were postoperative adhesion, fistula formation and surgical site infection. Before start of ATT 80% patient had hemoglobin level greater than 10gm%,but after completion of ATT more than 65% of pt had hemoglobin level greater than 10gm%. ESR>20mm in the first hour was observed in 90% of cases, but after the completion of ATT more than 50% patient had ESR less than 20mm in the first hour.

Symptom	Number of cases	Percentage
Pain abdomen	34	85%
Weight loss	32	80%
Anorexia	30	75%
Vomiting	24	60%
Fever	18	45%
Diarrhea	4	10%
Constipation	20	50%

**TABLE 1:-Symptom at the time of presentation**

Signs	Number of patients	Percentage
Pallor	30	75%
Tenderness	32	80%
Ascites	6	15%
Lump abdomen	8	20%

Abdominal distension	18	45%
Lymphadenopathy	4	10%

**TABLE-2:-Physical sign at the time of presentation**

Site	Number of patient	Percentage
Ileocecal region	10	25%
Enlarged mesenteric LN with matted gut loops	8	20%
Peritoneal tubercles	4	10%
Stricture involving ileum	4	10%
Ileal perforation	2	5%
Cocooned abdomen	1	2.5%
Omental caking	1	2.5%

**TABLE-3:-Site of involvement**

Postoperative Complication	Number of patient	Percentage
Wound infection	4	10%
Respiratory tract infection	8	20%
Fecal fistula	1	2.5%
Burst abdomen	1	2.5%
Septicemia	1	2.5%
Death	0	

**TABLE-4:-postoperative complication**

Table 4 indicates the postoperative complication developed in 15(37.5%) patients. There was wound infections in 4(10%) cases and 8(20%) patients showed the complications related to the respiratory tract infection. There was no death in our study.

### Conclusion

Abdominal tuberculosis should be suspected in middle aged people presenting with pain in right lower quadrant with tenderness. Most of the patient required surgery, all the patient improved dramatically to antitubercular treatment. So it is necessary to diagnose tubercular abdomen at earliest to prevent surgical complication to develop.

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