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# A CLINICAL STUDY OF ABDOMINAL TUBERCULOSIS ADMITTED IN JLNMCH, BHAGALPUR

General Surgery

**Dr. Dina Nath Prasad** Assistant professor Department of surgery Jawaharlal Nehru Medical College, Bhagalpur, Bihar

**Dr. Jayant Kumar Desh Deepak** Assistant professor Department of surgery Jawaharlal Nehru Medical College, Bhagalpur, Bihar

## ABSTRACT

Several recent developments, which have influenced the incidence as well as clinical course of tuberculosis in general, warrant a fresh look at abdominal tuberculosis. The availability of several effective combinations of potent anti-tuberculosis drugs and the general improvement in the living and nutritional standards of large segments of populations in many countries have expectedly led to a decline in the incidence of tuberculosis. The pattern of clinical presentations of abdominal tuberculosis has also changed. In this prospective study, 50 cases were studied in department of surgery, from January 2016 to June 2016. All patients were clinically evaluated and thoroughly investigated. 30 were males and 20 females with average age ranging 12-55 years. Abdominal pain was the most common presenting symptom in 47. The diagnosis of abdominal TB was confirmed by the presenting complaints of fever, weight loss, altered bowel habit, abdominal pain and distension in 30 patients, 9 by acid fast bacilli detection in sputum and 11 were diagnosed after the biopsy report of the specimen after operation. All patients received anti-tubercular treatment. All patients were improved with minimum side effects of drug. It was seen that the histopathological findings of tissue and clinical features are good method of diagnosis of abdominal tuberculosis. If diagnosed early, it can be treated successfully with anti-TB drugs and other surgical management.

## KEYWORDS:

abdominal tuberculosis, sputum, histopathology, abdominal pain

### Introduction

Tuberculosis has been declared a global emergency by the World Health Organization and is the most important communicable disease worldwide. The prevalence of extra-pulmonary tuberculosis seems to be rising, particularly due to increasing prevalence of acquired immunodeficiency syndrome (AIDS). In patients with extrapulmonary tuberculosis, abdomen is involved in 11% of patients. Though potentially curable, abdominal tuberculosis continues to be a major cause of morbidity and mortality in India. In the abdomen, tuberculosis may affect the gastrointestinal tract, peritoneum, lymph nodes, and solid viscera. Tuberculosis can involve abdomen in several ways. Firstly, the tubercle bacilli may enter the intestinal tract through the ingestion of infected milk or sputum. The mucosal layer of the gastrointestinal tract can be infected with the bacilli with formation of epitheloid tubercles in the lymphoid tissue of the submucosa. After 2-4 week, caseous necrosis of the tubercles leads to ulceration of the overlying mucosa which can later spread into the deeper layers and into the adjacent lymphnodes and into peritoneum. Rarely, these bacilli can enter into the portal circulation or into hepatic artery to involve solid organs like liver, pancreas and spleen. The disease can mimic various other gastrointestinal disorders, particularly inflammatory bowel disease, colonic malignancy, or other gastrointestinal infections. Because of the non-specific symptoms and signs, its diagnosis is often delayed. A high index of suspicion therefore needs to be maintained for an early diagnosis and timely treatment. The symptoms of abdominal tuberculosis are generally vague and nonspecific. Clinically it may present in acute, chronic or acute on chronic form and sometimes may even be an incidental laparotomy finding.11 Commonly it runs a chronic course with non-specific symptoms of fever (40-70%), pain (80-95%), diarrhoea (11-20%), constipation, alternating constipation and diarrhoea, weight loss (40-90%), anorexia and malaise. Acute presentation is secondary to complications like complete or partial intestinal obstruction due to mass formation in ileocaecal region or stricture(s) in small intestine, and bowel perforation causing peritonitis especially terminal ileum. Diagnosis is usually confirmed after the laparotomy or laparoscopy, and histopathology examination. For those cases having been diagnosed with abdominal tuberculosis early in the course of illness and minimal symptoms, treatment is mainly conservative with anti-tuberculosis therapy. Surgical treatment is reserved for complications such as intestinal obstruction and bowel perforation with peritonitis. The aims of surgery are mainly to remove the focus of the disease and treat the mechanical effects which are causing the presenting morbidit. It may mimic any intraabdominal disease and can challenge the diagnostic skills. Some patients will require immediate surgical intervention, whereas others will improve with conservative treatment. Mortality rate has come down to 6% from 20-50% after introduction of anti-tubercular chemotherapy .Surgical management of abdominal tuberculosis (intestinal tuberculosis) has changed considerably from bypass operations and major surgical resections to conservative resection and stricturoplasty. The aim of surgery in case of intestinal tuberculosis is to overcome the deleterious effect of the disease like tissue disorganization, obstruction and perforation. The diagnosis of abdominal TB is difficult to make due to the nonspecific presentation of symptoms and signs. In addition, it can mimic many diseases and conditions such as malignancy, bacterial infectious disease, and inflammatory disease. Delayed diagnosis or misdiagnosis is directly related to poor outcome in patients who are not able to receive early treatment.

### Matrials and Methods

In this study, 50 cases were studied. Study was done in surgery department of JLNMCH, Bhagalpur, Bihar from January 2016 to June 2016. The clinical information, including age, sex, medical history, symptoms and signs, physical findings, laboratory and image findings (radiography and sonography), therapeutic methods and outcomes were reviewed and analyzed. Histopathology and CT Scan of abdomen in selected patients.

### Results

Age wise distribution-

| Gender | Males | Females |
|---|---|---|
| Number | 30 | 20 |
| Percentage | 60% | 40% |

More common in males with male to female is 30-20.
Clinical features at the time of presentation

| Signs & Symptoms | No of patients | Percentage |
|---|---|---|
| Abdominal pain | 47 | 78% |
| Fever | 24 | 40% |
| Diarrhoea | 15 | 25% |
| Weight loss | 11 | 18% |
| Anorexia | 08 | 13% |
| Nausea / vomiting | 14 | 23% |
| Constipation | 05 | 8% |

Abdominal pain was the most common presenting symptom in 47.

Diagnosis done by

| | Number of patients | Percentage |
|---|---|---|
| By clinical features | 30 | 50% |
| By sputum AFB | 09 | 15% |
| By histopathological examination | 11 | 18% |

The diagnosis of abdominal TB was confirmed by the presenting complaints of fever, weight loss, altered bowel habit, abdominal pain and distension in 30 patients, 9 by acid fast bacilli detection in sputum and 11 were diagnosed after the biopsy report of the specimen after operation.

## Discussion

Tuberculosis is the leading cause of infectious death, with approximately 2 million deaths annually. Up to 5 % of patients with myco tuberculosis have GI involvement, and the GI tract is reported to be the sixth most common extra pulmonary site. GI TB is often difficult to diagnose and sign and symptoms are non-specific and in our samples, clinicians often failed to consider TB in the initial differential diagnosis. Time to specific diagnosis ranged from >1 week to >3 months. In the present series, most common clinical symptoms were abdominal pain in 20 (80%), weight loss in 21 (84%) and Anorexia in 18 (72%) patients. Similarly, Bernhard JS etal has also mentioned for these features as most common symptoms in his series of 18 patients. Fever was present only in 6 (24%) of patients; which was not a common feature in abdominal tuberculosis. Diarrhoea was present in 12 (48%) of patient and nausea/ vomiting in 8 (32%) patients.

Our study is comparable to studies of SK Bhansali and A Mohammed reporting pain abdomen as primary symptom in 94% cases and 98% respectively. In the study of A Mukhopadhyay, abdominal tuberculosis constituted a significant percentage (10%) of all cases attending the emergency with an acute abdomen.20 The majority of the patients were admitted with intestinal obstruction and peritonitis. They all underwent emergency laparotomy. This further supports the view of delay in diagnosis of abdominal tuberculosis, till the development of complications. In the present study all the patients were prescribed anti tuberculous drugs for 12 months, as most of the series recommend.The low mortality rate of 2.3% reflects better preoperative management and good surgical decision making regarding various operative procedures.

## Conclusion

Abdominal tuberculosis is one of the common extra- pulmonary tubercular infections. The diagnosis of GI tuberculosis is often delayed. Early diagnosis is the key factor in avoiding systemic and local complications of intestinal tuberculosis. Hence a high index of clinical suspicion is needed. It was seen that the histopathological findings of tissue and clinical features are good method of diagnosis of abdominal tuberculosis. If diagnosed early, it can be treated successfully with anti-TB drugs and other surgical management.

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