

# FREQUENCY OF INTESTINAL TUBERCULOSIS IN CASES OF INTESTINAL OBSTRUCTION

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## ABSTRACT

**OBJECTIVE:** To determine the frequency of intestinal tuberculosis in cases of intestinal obstruction.

**DESIGN:** A descriptive, case review.

**SETTING:** Jinnah Postgraduate Medical Centre, Karachi – Sindh, from September 1988 to September 1994.

**METHODS:** Total five hundreds and ninety-two patients of intestinal obstruction were operated during study period. Out of these, ninety-three were found to have intestinal tuberculosis on histopathology. All these patients were admitted through Accident & Emergency or out-patient departments.

**RESULTS:** Among ninety-three cases found to have intestinal tuberculosis; they included fifty-one females and forty-two male patients. Age varied from 12 to 68 years. Majority of patients was in second and third decades. Patients presented with asthenia, nausea, vomiting, fever, night sweats and weight loss. Forty-three patients, out of ninety-three had peritonitis. Exploratory laparotomy was performed in all cases. The site of gut involved was jejunum, terminal ileum and ileocaecal junction. However, ileum was found most frequently affected site in 51.61% cases. Operative findings included perforation of gut and mass in ileocaecal region in 30.27% cases each. Right hemicolectomy was performed in 45 (48.60%) cases followed by resection anastomosis in 24(25.72%), ileostomy in 15 and repair of perforation in 9 cases. Anti-tuberculous therapy was given to all these patients. Mortality was 10% in these cases.

**CONCLUSION:** Patients with intestinal obstruction, presenting with fever, loss of weight, nausea, and night sweats should be considered as intestinal tuberculosis until and unless proved otherwise. Laparotomy and histopathology are important for diagnosis and treatment of these cases.

**KEY WORDS:** Intestinal tuberculosis. Intestinal obstruction. Biopsy.

## INTRODUCTION

Tuberculosis is a major public health hazard and is the leading cause of death in Pakistan.<sup>1</sup> It infects one-third of world population and kills about three million people each year.<sup>2</sup> Pulmonary tuberculosis is the most important form as it is responsible for spread of tuberculosis in community. It is very important that no efforts should be spared to diagnose and treat tuberculosis<sup>3</sup> to avoid complication of intestinal tuberculosis like intestinal obstruction, bowel perforation leading to peritonitis, bleeding and enterocutaneous fistulas. Intestinal obstruction is the most common complication of intestinal tuberculosis.<sup>4-7</sup> Poverty, overcrowding and unhygienic conditions are making the situation worse in underdeveloped countries and are responsible for spread of the disease.<sup>8</sup> Therefore, it is important that

every effort should be made to timely diagnose and treat the disease, and prevent and control the mortality. Hence, this study was planned to find out the frequency of intestinal tuberculosis in operated cases of intestinal obstruction in our set up.

## PATIENTS AND METHODS

This study was conducted at Jinnah Postgraduate Medical Centre, Karachi – Pakistan. Total five hundred and ninety-two patients of intestinal obstruction were operated from September 1988 to September 1994 and out of these, ninety-three cases were found to have intestinal tuberculosis on histopathology. Data were collected through a pre-designed proforma. All the patients were admitted through Accident & Emergency or out patients department.

**RESULTS**

Total five hundred and ninety-two patients of intestinal obstruction were operated during study period. Out of these, ninety-three had intestinal tuberculosis, found on histopathology. These included fifty-one females and forty-two male patients. Age of patients ranged from 12 to 68 years. However, majority of patients were in second and third decades of their life (**Table I**). Patients presented with asthenia, nausea, vomiting, fever, night sweats and weight loss. Forty-three patients out of ninety-three were found to have peritonitis. Exploratory laparotomy was performed in all these patients. The sites of gut involved included jejunum, terminal ileum and ileocaecal junction (**Table II**). Operative findings were ileocaecal mass, stricture, adhesions and perforation of small gut (**Table III**). Procedures performed were stricturoplasty, right hemicolectomy, resection of the affected gut and end ileostomy (**Table IV**). Anti-tuberculous therapy was given to all these patients. Mortality in this study was 10%.

**TABLE I:  
AGE AND SEX DISTRIBUTION OF CASES**

AGE (in years)	MALE	FEMALE	PERCENT-AGE
12 ____ 20	18	26	(47.29 %)
21 ____ 30	10	14	(24.78 %)
31 ____ 40	08	08	(17.09 %)
41 ____ 50	05	03	(07.59 %)
51 ____ above	01	02	(03.25 %)

**TABLE II:  
INTESTINAL INVOLVEMENT OF CASES**

SITE	NUMBER	PERCENTAGE
Ileum	48	51.61%
Ileocaecal region	30	32.27%
Both ileum, jejunum	11	11.82%
Jejunum	04	04.30%

**TABLE III:  
OPERATIVE FINDINGS IN CASES**

FINDING	NUMBER	PERCENTAGE
Mass in ileocaecal region	30	32.27%
Perforation	30	32.27%
Strictures	18	19.35%
Adhesion	15	16.11%

**TABLE IV:**

**SURGICAL PROCEDURS PERFORMED IN CASES**

PROCEDURE	NUMBER	PERCENTAGE
Right hemicolectomy	45	48.60%
Resection anastomosis	24	25.72%
Ileostomy	15	16.01%
Repair of perforation	09	09.67%

**DISCUSSION**

Intestinal tuberculosis is one of the common problems faced by surgeons in the developing world. It affects most commonly the young adults in 2<sup>nd</sup> and 3<sup>rd</sup> decades.<sup>8-11</sup> In this study, most of the patients were also in 2<sup>nd</sup> and 3<sup>rd</sup> decades of the life. More females were affected as compared to males in this study where female patients were fifty-one and males were forty-two. Same findings have been reported in other studies.<sup>11-13</sup> Fifteen percent of patients presented with intestinal obstruction due to tuberculosis in this study, however one other study from Pakistan has reported 11% cases of intestinal obstruction due to tuberculosis.<sup>14</sup> Male predominance has also been found in some studies.<sup>12,15</sup> Exploratory laparotomy was performed in all cases. Intestinal obstruction due to tuberculosis was found in ninety-three patients. It was found that eighteen patients had strictures involving terminal ileum while thirty patients had ileocaecal mass. Perforation was present in thirty patients and fifteen patients were having adhesions. These findings are comparable with other studies.<sup>11,12,16-18</sup> In this study, right hemicolectomy was done in forty-five cases, ileostomy in fifteen patients, resection anastomosis in twenty-four patients and repair of perforation in nine patients. Adhesiolysis was also performed in two cases. Mortality in this study was 10% and this figure is comparable with other studies in which it is reported from 6% to 50%.<sup>5,10,19,22</sup>

**CONCLUSION**

Intestinal tuberculosis is a major health problem in our part of the world. Patients of intestinal obstruction presenting with fever, loss of weight, nausea, and night sweats should be considered as cases of intestinal tuberculosis until and unless proved otherwise. Laparotomy and histopathology are important in the diagnosis and treatment of such cases.

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