



Epidemiology and Clinical Presentations of Abdominal Tuberculosis

Authors

Dr A. Harish Kumar, Dr R. Baskaran, Dr K. Karthikraja, Dr M. Prema

Department of General Surgery, Rajah Muthiah Medical College & Hospital, Chidambaram, India

Abstract

Background: Tuberculosis is one of the commonest communicable diseases to mankind. It has significant morbidity in India. Abdominal tuberculosis is difficult to diagnose and we should have high index of suspicion to diagnose it. This study aims to document Epidemiological profile and Clinical Presentations of Abdominal Tuberculosis.

Methods: This study was a Retrospective & Prospective observational study of 50 cases which were diagnosed and treated as Abdominal Tuberculosis between August 2013-August 2018 in Rajah Muthiah Medical College, Chidambaram, Tamilnadu, India. All patients who were diagnosed with abdominal Tuberculosis, whether operated or not, were put on anti-tubercular drugs for a period of 6 months and regular follow up was made.

Results: In our study, out of 50 patients with abdominal Tuberculosis, 28 were males (56%) and 22 were females (44%) with Male: Female Ratio of 1.27:1. There was a higher prevalence of Abdominal Tuberculosis in 4th decade (36%) followed by 3rd decade (24%). The most common clinical presentation was Intestinal Obstruction in 13 patients (26%) followed by abdominal distension in 12 patients (24%). 2% of patients were associated with HIV co-infection, and 12% of patients were associated with Pulmonary Tuberculosis. 52% of patients underwent surgical management followed by anti-tubercular drugs, 48% cases underwent medical management (ATT). Ileo-caecal region was the most common site of involvement.

Conclusions: Abdominal Tuberculosis was predominantly seen in males. Patients in their 3rd & 4th decade of low socio-economic group were most commonly affected. Most of patients were of primary intestinal type and in some it was secondary to pulmonary tuberculosis. Majority of patients underwent surgical management followed by anti-tubercular therapy.

Keywords: Abominal Tuberculosis, anti-tubercular therapy (ATT), HIV, Ileocaecal region, Intestinal obstruction.

Introduction

Tuberculosis is a disease caused by the bacterium Mycobacterium species which is one of the commonest diseases known to mankind. It is a well known fact that it has its reputation of being one of the greatest killer diseases. There has been a trend of increased incidence of tuberculosis in human race in the last three decades which can be

partly attributed to increase in population, social deprivation and HIV infection.

The morbidity and mortality due to tuberculosis leads to a discovery of newer drugs and more emphasis on the disease. With improved socioeconomic conditions and disease diagnosis in the western countries, Tuberculosis in the western countries impose little clinical problem. But in

most developing countries like India, it remains to be a major health hazard and major health related mortality, morbidity both physically and psychologically. As we know, Tuberculosis is one of the important gastroenterological problems in Tropics.

Gastrointestinal Tuberculosis is one of the earliest known diseases which still remain the disease with diagnostic enigma due to its perplexing protean clinical manifestations. Importance of the condition lies in the diversity of the presentations and its wide spread effects on the body. It may present as acute, subacute or chronic forms and may give rise to malabsorption, more so when associated with stricture formation.

The symptoms and signs often quite vague and laboratory investigations and radiological findings are sometimes not conclusive. There is no single feature which is diagnostic for abdominal Tuberculosis. In case of any localized involvement of the structures of the abdomen the presenting clinical picture will mimic the disease of the organ only. In various studies about abdominal tuberculosis worldwide, the results show wide range in its disparity in the nature course of disease, in its diagnosis and management. We planned a study on abdominal tuberculosis to understand the nature of disease process and to evaluate the various laboratory and radiological investigations and to study the management of disease.

Aims and Objectives

The objective of this study was to assess the prevalence of abdominal tuberculosis, age wise/sex wise distribution, types of clinical presentations of abdominal tuberculosis in our study population. to study the incidence of abdominal tuberculosis associated with active pulmonary tuberculosis.

Materials & Methods

Retrospective & Prospective observational study of 50 patients who were diagnosed and admitted

with abdominal tuberculosis at Rajah Muthiah Medical College & hospital, Chidambaram between August 2013-August 2018. the study included the patients diagnosed as abdominal tuberculosis and being admitted & treated at Rajah Muthiah Medical College & Hospital, Chidambaram. Patients associated with abdominal malignancy were excluded.

Results

Sex Distribution

Sex	No. Of Cases	%
Male	28	56
Female	22	44
Total	50	100

There was a higher prevalence of abdominal tuberculosis in males compared to females with sex ratio of 1.27:1

Age Distribution

Age	Male	Female	Total	%
<20	2	5	7	14
21-30	6	6	12	24
31-40	10	8	18	36
41-50	4	2	6	12
>50	6	1	7	14
Total	28	22	50	100
MEAN AGE				34.34 yrs.

There was a higher prevalence in 4th decade followed by 3rd decade with Mean age of 34.34.

Socio-Economic Status

Socio-Economic Status	Total No .Of Patients	%
Lower Class	39	78
Middle Class	08	16
High Class	03	6

Low socio-economic group were affected more compared to other groups.

Residence

Residence	Total No. of Patients	%
Rural	41	82
Urban	09	18

Rural population affected more than urban population.

Clinical Presentations

S. No	Clinical Presesntaion	No. of Patients	%
1	Intestinal obstruction	13	26
2	Abdominal mass	9	18
3	Abdominal distension	12	24
4	Peritonitis	4	8
5	Non specific symptoms	12	24

Radiological Invsetigations & Its Sensitivity

S. No	Radiological Investigations	No .of Patients Performed	Positive	Sensitivity
1	X – ray Chest	50	06	12.0%
2	USG Scan	50	26	52.0%
3	CT Scan	42	34	80.9%
4	Barium meal	4	3	75.0%
5	Barium Enema	3	1	33.3%

Mode of Management

Mode	No. Of cases	%
Surgery	26	52
Medical	24	48

Details of Surgical Procedures Done

S.No	Procedure	Elective	Emergency	Total
1	Right Hemicolectomy	2	1	3
2	Laparotomy and adhesiolysis	3	2	5
3	Laparotomy and Limited Resection	1	4	5
4	Laparotomy & Primary closure/Diversion ileostomy	3	6	9
5	Laparoscopy & Intervention(Adhesiolysis/abscess drainage)	2	-	2
6	Laparotomy & drainage	-	2	2
7	Laparotomy & Strituroplasty	-	-	-
8	Anal canal dilatation	-	-	-
	Total	11	15	26

Associations with Pulmonary Tuberculosis

Associations	Total No.Of Patients	%
Abdominal Tuberculosis Alone	44	88
Abdominal Tuberculosis Associated With Active Pulmonary Tuberculosis	06	12

Associations with HIV

HIV was positive in 1 patient, which account for 2% co-infection of HIV with abdominal Tuberculosis.

Ascitic Fluid CB-NAAT/ADA Levels

In our study Ascitic fluid CB-NAAT, ADA levels was done for 18 & 32patients respectively, which showed positive in 17 & 28 patients respectively with sensitivity of 94% & 87.5%.

USG Abdomen

50 patients underwent USG evaluation and findings suggestive of abdominal tuberculosis in 26 patients (52%). Bowel wall thickening, free peritoneal fluid, loculated collections, mesenteric lymphadenopathy were diagnostic of abdominal tuberculosis.

CT/CECT Abdomen

CT abdomen has a high sensitivity of 80.9% (34 patients positive out of 42 patients)

Diagnostic Laparoscopy: Diagnostic laparoscopy was done in 29 patients, and were diagnostic in 27 patients with sensitivity of 93.1%.

Conclusion

Abdominal tuberculosis is a diagnostic enigma due to its vague clinical presentations. The diagnosis remains inconclusive even after laboratory & radiological evaluation. To diagnose abdominal tuberculosis –a high degree of clinical suspicion is needed.

Abdominal tuberculosis was predominantly seen in Low socio-economic group, and males were commonly affected and higher prevalence in 3rd & 4th decades. Intestinal obstruction was the commonest presentation in our study. All patients with abdominal tuberculosis should be definitely screened for HIV co-infection, as tubercular infection was on the rise in immuno-compromised AIDS patients. Anti-tubercular therapy is the treatment of choice in abdominal tuberculosis, and surgery is indicated in patients with complications.

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