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STUDY OF TUBERCULAR INTESTINAL OBSTRUCTION IN ONE OF THE TERTIARY CARE CENTRE OF MADHYA PRADESH

Surgery

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ABSTRACT

Introduction: Tuberculosis is one of the most dreaded infectious diseases. Although the health standards are rising all over the world but large number of population is still infected by M. tuberculosis. Abdominal tuberculosis affects gastrointestinal tract, peritoneum, omentum, mesentery and its nodes along with intra abdominal organs. Tuberculosis is one of the causes of intestinal obstruction although uncommon to other causes of mechanical bowel obstruction.

Aim & Objectives: To evaluate the clinic- pathological profile of patients of tubercular intestinal obstruction .

Material & Methods: This retrospective study is conducted at N S C B Medical College Jabalpur with the case records of all the patients for clinical presentation, biochemical investigations, operative findings, early and long term results.

Results: In this study abdominal tuberculosis accounted for 16.3% of all the cases of intestinal obstruction. Out of total cases of abdominal tuberculosis 44.73% of the patients presented with intestinal obstruction which was the highest mode of presentation of abdominal tuberculosis. Majority of patients i.e. 41.57% presented with symptoms of subacute intestinal obstruction,14.73% presented with intestinal obstruction and perforation peritonitis.

Summary and conclusions: In the present study we have found that the pattern of the disease was similar to that of in other series with respect to sign and symptoms with minor differences to observed data.

KEYWORDS

Abdominal Tuberculosis, Intestinal Obstruction, Mycobacterium Tuberculosis

Introduction:

Tuberculosis is the disease which is affecting the man kind since many sanctuaries. Tuberculosis can involve any part of the gastrointestinal tract and is the sixth most frequent site of extrapulmonary involvement.[1]Tuberculosis bacteria reach the gastrointestinal tract via haematogenous spread, ingestion of infected sputum, or direct spread from infected contiguous lymph nodes and fallopian tubes. TB of the gastrointestinal tract is the sixth most frequent form of extra-pulmonary site, after lymphatic, genitourinary, bone and joint, miliary and meningeal tuberculosis. [2]

Tuberculosis has staged a global comeback and forms a dangerous combination with AIDS. The abdomen is one of the common sites of extra pulmonary involvement. Patients with abdominal tuberculosis have a wide range and spectrum of symptoms and signs; the disease is therefore a great mimic. Despite expectations such as tuberculosis should be virtually eradicated from most developing countries within 50 years; it has come back with a vengeance and has recently been declared a global emergency by the World Health Organisation. [3]

The World Health Organization estimates that one-third of the world's population is infected with M. tuberculosis, with the highest prevalence of TB in Southeast Asia. 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.[4] Eight million new cases of pulmonary and non-pulmonary tuberculosis occur yearly with 2.9 million deaths. [5]

Although pulmonary TB (PTB) which accounts for 80% of cases is the most common form of TB, in about 20% of cases, the disease may present with extra-pulmonary TB (EPTB) involving one or more extra pulmonary site with or without associated PTB. Abdominal TB (ATB) is a form of EPTB. Among all forms of TB, ATB accounts for 1% cases of TB. [6]

In this retrospective study, we only dealt with patients attending the anti tubercular clinics and surgery department of our institutions. We analyzed clinic-pathologicaland laboratory studies in patients with abdominal TB.

Aim& Objectives: To determine the percentage of patients of abdominal tuberculosis presenting as intestinal obstruction and determination of the clinical and pathological features.

Material & Methods: This retrospective study is conducted at N S C B Medical College Jabalpur with the case records of all the patients for clinical presentation and biochemical investigations. Patients of all age group and both sexes were included who were considered as cases of abdominal tuberculosis clinically and radiologically. All the patients presented with intestinal obstruction were also included. Typical gross description of operative findings with biopsy of mesenteric lymph node showing histological evidences consistent with tuberculosis were included in the study. Patients with associated significant co morbidity , patients who were not given consent and patients who were not evaluated completely were excluded from the study. All the data were recorded and presented as percentage of total.

Results and Observations: Clinical study of intestinal obstruction due to abdominal tuberculosis comprises of evaluation of 190 cases of Koch's abdomen admitted in the department of Surgery at N S C B Medical College. Total 85 patients had features of intestinal obstruction and abdominal tuberculosis was found to be the cause in 16.3% patients with intestinal obstruction while 44.73% of patients of Koch's abdomen presented as intestinal obstruction.

Table:1-Type of presentation

S. No.	Type of presentation	No. of cases	Percentage
1	Acute	50	26.31
2	Subacute	79	41.57
3	Chronic	61	32.10

Table:2- Distribution of Acute cases

S. No.	Clinical diagnosis	No. of cases	Percentage
1	Perforation	21	26.31
2	Acute intestinal obstruction	28	41.57
3	Acute peritonitis	01	32.10

Table:3- Distribution of Sub acute cases

S. No.	Presentation	No. of cases	Percentage
1	Sub acute intestinal obstruction	26	32.91
2	Acute or chronic intestinal obstruction	31	39.24
3	Subacute peritonitis	02	2.53
4	Lump with or without peristalsis	20	25.31

Table:4- Distribution of Chronic cases

S. No.	Presentation	No. of cases	Percentage
1	Chronic intestinal obstruction	2	3.27
2	Ileo-caecal tuberculosis	23	37.70
3	Ascites	16	26.22
4	Lump in abdomen without pain	18	29.5
5	Vague abdominal tenderness	02	3.27

Table:5- Histopathological profile

S. No.	Report	No. of cases	Percentage
1	Positive	98	93.3
2	Negative	03	2.85
3	Non specific reactive hyperplasia	04	3.80

Table :6- Blood haemoglobin,Total leucocyte count(TLC) and ESR study

S. No.	Parameter	No. of	Percentage
1	Haemoglobin (≥ 10gm/dl)	101	53.15
2	Haemoglobin (≤ 10 gm/dl)	89	46.84
3	TLC (≥ 9000/mm^3)	44	29
	TLC (≤ 9000/mm^3)	110	71
	ESR((≤ 15 mm at the end of one hour)	24	15.58
	ESR(≥ 15 mm at the end of one hour)	130	84.41

Discussion:

In the present study all the 190 cases were classified into a) Acute b) Sub acute c) Chronic . Distribution of cases in these three categories were presented in Table 1. In the present series there were 50 cases which presented with acute symptomatology.. There was past history of tuberculosis in only 12 of these, indicating that 38 cases presented as acute emergency without any prior evidence of tuberculosis. This shows that in our country we must keep the possibility of tuberculosis in mind while dealing with acute abdominal emergency like perforation, intestinal obstruction and/ or acute peritonitis.

Various other studies have shown slight different results in terms of patients presented as acute, sub acute or chronic cases. It was observed that acute presentation is differing with different authors from 10.6% to 26.31%, highest in our study. Acute on chronic group differed from 26.77% to 63.6% with 41.5% in our study. Chronic group varied from 25.6% to 55.16% with 32.10% in our study. [7,8,9]

In 79 case of sub acute category only 16 had past history of tuberculosis. In chronic group only 28 cases had past history of tuberculosis out of 61 cases. In our study 46.84 % cases showed the haemoglobin level below 10 gm% . Dandapat MC et al in their study found 80% of the patients to be anaemic while in another study by Tandon RK et al in 1986 found 50% of the patients were anaemic.[10,11] In the present study ESR was found to be high in 84.41% of patients out of 154 cases. In our study ESR was normal in 11 histologically proven patients which is similar to study by Sing V et al. [12] Leucocytosis observed in 29% of total cases which is less in comparison to study by Das P et al. [13] Though the study reveals the various aspects of cases of abdominal tuberculosis presented as intestinal obstruction still further study is required with larger study cohort along with consideration on socio demographic profile of the patients, epidemiological features and continuous follow up after treatment.

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