



INCIDENCE AND PATTERN OF ABDOMINAL TUBERCULOSIS- RETROSPECTIVE AS WELL AS PROSPECTIVE STUDY IN BUNDELKHAND REGION

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ABSTRACT **Background:** Tuberculosis, one of the major public health problem in the developing countries of world today, has made its impact felt throughout the ages. Among all the infectious diseases that have plagued men, tuberculosis has probably been responsible for the greatest morbidity and mortality. As Bundelkhand region is illiterate, overcrowded, malnourished, poverty stricken with poor hygienic condition and living condition there is a high incidence of abdominal tuberculosis in this area.

Materials and Methods: The present study has been carried out on patients, clinically diagnosed to be cases of abdominal tuberculosis in M.L.B. Medical College, Hospital Jhansi, during June 2019 to May 2020

Result: This study comprises of 116 patients (60 men and 56 women), diagnosed as cases of abdominal tuberculosis. Tuberculosis affected males more commonly than females though some series reported that this disease is more common in female patients, while others reported it to be more common in males.

Conclusion: The most common age group, affected, was 20 to 30 years. This age group is reported, throughout India, to be affected most. In Western countries, this disease is common at the age of 40 years.

KEYWORDS : Abdominal tuberculosis, Intestinal tuberculosis, Incidence.

INTRODUCTION

Tuberculosis, one of the major public health problem in the developing countries of world today, has made its impact felt throughout the ages. Among all the infectious diseases that have plagued men, tuberculosis has probably been responsible for the greatest morbidity and mortality. No other disease has so much sociological, economical and health significance as tuberculosis (Kochi et al). Ever since Hippocrates propounded the aphorism that "Diarrhoea attacking a person affected with phthisis is a mortal symptom", tuberculosis of alimentary tract has been well known as one of the terminal phenomenon of pulmonary tuberculosis.

John hunter et al said in one of his Lectures that, Tuberculosis may be classed under the head of "spurious tumors", they are most frequently in viscera. They are mostly of lymphatic kind and are often formed in lungs of people and may grow to considerable size. They are often, on and in the liver, the spleen, the uterus, coats of intestine, the peritoneum and sometimes on the epiploen.

In India, abdominal tuberculosis is a fairly common disease due to crowding, malnutrition and poor hygienic condition. With improvement in public health, BCG vaccination, advent of antibiotic treatment of tuberculosis, secondary intestinal tuberculosis is expected to become less frequent. In spite of this abdominal tuberculosis remain common problem in India.

As Bundelkhand region is illiterate, overcrowded, malnourished, poverty stricken with poor hygienic condition and living condition there is a high incidence of abdominal tuberculosis in this area.

MATERIAL AND METHODS

The present study has been carried out on patients, clinically diagnosed to be cases of abdominal tuberculosis in M.L.B. Medical College, Hospital Jhansi, during June 2019 to May 2020.

These patients were diagnosed by following procedures :-

1. History.
2. Clinical examination.
3. Biochemical methods.
4. Serological procedures.
5. Radiological techniques.
6. Pathological and Micro-biological techniques.
7. Histopathological techniques.
8. Operative procedures.

These methods of diagnosis were conducted in Department of Surgery, Department of Pathology, Microbiology and department of Radiology, M.L.B. Medical College, Jhansi.

The patients were treated by conservative treatment and/or operative treatment. Attempts were made to co-relate the results of study with clinicopathological observations, operative and histopathological observations. The following procedures have been adopted.

Operative procedures:

Exploratory laprotomy were done and abdomen looked for enlarged caseous mesenteric lymph nodes, bowel and omentum studded with tubercles, colour of peritoneal fluid etc.

OBSERVATION AND RESULT:

Table 1: Shows sex incidence in cases of abdominal tuberculosis

Sex of patients	Number of cases	Parentage
Male	60	51.70%
Female	56	48.30%
Total	116	100%

Table 2: Showing distribution of patients according to age (in years) and type of abdominal tuberculosis

Age group (in yrs)	Bowel tuberculosis		Peritoneal tuberculosis		Glandular tuberculosis	
	No. of cases	%	No. of cases	%	No. of cases	%
1-10	3	6	3	6	8	44
11-20	9	19	11	22	7	39
21-30	21	44	14	28	3	17
31-40	6	12	7	14	-	-
41-50	4	8.5	6	12	-	-
51-60	4	8.5	5	10	-	-
61-70	1	2	1	2	-	-
71-80	-	-	3	6	-	-
Total	48	100	50	100	18	100

Table 3: Showing incidence of features type of intestinal tuberculosis

Types	Number of cases	Parentage
Hyperplastic	24	50%
Stricture	13	27%
Ulcerative	11	23%
Total	48	100%

Table 4: Showing incidence of features of tubercular toxemia

Clinical features and investigations	Number of cases	Parentage
Fever	90	77%
Generalised weakness	98	84%
Anorexia	89	76%
Loss of weight	91	78%

Table 5: Showing incidence of investigations in patient of abdominal tuberculosis

Clinical features	Number of cases	Parentage
Anemia	93	80%
Leucocytosis	21	18%
Lymphocytosis	28	24%
Raised ESR	85	73%

Table 6: Showing incidence of essential features of hyperplastic tuberculosis

Features	Total no. of cases	Present in no. cases	Percentage
Lump abdomen	24	22	92
Partial bowel obstruction	24	24	100

Table 7: Showing incidence of essential features of stricture tuberculosis

Features	Total no. of cases	Present in no. cases	Percentage
Partial bowel obstruction	13	13	100%
Visible peristalsis	13	11	84%

Table 8: Showing incidence of essential features of ulcerative tuberculosis

Features	Total no. of cases	Present in no. cases	Percentage
Diarrhea	11	11	100
Blood or pus in stool	11	8	72

Table 9: Showing the essential features of peritoneal tuberculosis

Features	Total no. of cases	Present in no. cases	Percentage
Fluid in abdomen	50	22	44
Intestinal obstruction	50	33	70

Table 10: Showing incidence of clinical features of glandular tuberculosis

Features	Total no. of cases	Present in no. cases	Percentage
Mesenteric lump	18	8	44
Pain abdomen	18	5	27
Intestinal obstruction	18	5	27

DISCUSSION

Tuberculosis, a world-wide malady, has been posing a great threat, specially in the developing countries, since long. In India, this disease continues to be one of the most important public health problem. Among the extra-pulmonary tuberculosis, abdominal tuberculosis is a common medical and surgical disease.

In spite of drug therapy and improved hygiene, abdominal tuberculosis remains, a significant cause of morbidity and mortality. Prior to the advent of anti-tuberculous drugs, at least 70% of patients with Car advanced pulmonary tuberculosis, had tuberculous enteritis.

The present study has been conducted to find out different presentations, methods of investigations and management of this common condition.

This study comprises of 116 patients, diagnosed as cases of abdominal tuberculosis.

In this study the male and female ratio is 1.07:1 i.e. males slightly predominate female patients. In studies carried throughout the world, it is reported that abdominal tuberculosis is more common in female patients than in males 1:2.5. In one series male to female ratio was 1.3:1. i.e. males slightly more effected than female.

In India, the commonest age group affected is 20-30 wars. Observations in present study shows the same data i.e. 37 cases (32%) out of 116, were in age group of 20-30 years. In western countries, the most common age group, affected abdominal tuberculosis, is 40 years. In India bowel tuberculosis generally present between age 20-40 years (Prakash et al).

In this study the disease mainly affected the lower socio economic groups with rural patients affecting in 73% of cases and urban patient in 27% of cases i.e. rural patients affecting approximately three times more than urban patients. Anderson et al also founded the prevalence

of disease significantly more in lower socio economic group. Poverty implies low standard of living, a certain amount of malnutrition specially protein deficient diet, over crowding and unhygienic living conditions. Survey in a large group of civil servants in Delhi (Pamra et al) showed prevalence and incidence of tuberculosis to be nearly three times more in low income group.

In this study peritoneal type of tuberculosis 43% out numbers, the intestinal (41%) and glandular (15%) type of tuberculosis. The reported occurrence of tuberculosis in these sites varies from series to series. While Das and Shukla et al reported 37% cases of peritoneal tuberculosis while 54% and 12% cases of bowel and glandular tuberculosis respectively.

In India incidence of infection of hyperplastic variety of intestinal tuberculosis varies from 54% to 60%. In this study the incidence of hyperplastic variety of intestinal tuberculosis is 50% of cases. Tuberculosis may involve any part of intestine but the common sites are terminal ileum and caecum (Prakash et al). The ileo-caecal area by far the most common site.

As the disease affects whole body, general symptoms, evening rise of temperature, general weakness, anorexia loss of appetite and loss of weight, are common. In this present study, it is evident that, these symptoms are quite common (76-84%). In India the reported incidence of these symptoms is 35 to 45.6% and in developed countries they vary from 25 to 75%. Jaswant Singh et al reported symptoms like fever loss of weight, weakness in 70- 80% of cases in his series.

It is evident that erythrocyte sedimentation rate (E.S.R.) was raised in 85 cases (73%); whereas leucocytosis and lvmphocytosis was present in 18% and 24% cases respectively. These blood studies are non-specific and proved disappointing, in diagnosis of abdominal tuberculosis. Reports from Western countries suggest that patients with active tuberculosis may have normal E.S.R. Incidence of raised E.S.R. varies from 25% to 92.5%. In our country incidence of raised E.S.R. is 92.9%. Leucocytosis was present in 19.8% to 46% of cases in series reported in Western countries whereas in our country its incidence was reported to be 14% to 43.8%. Marked lymphocytosis is reported by Kaufman and Donovan". In contrast to this, Das et al reported low lymphocyte count in 14.7% cases.

Most of the patients of hyperplastic tuberculosis presents with features of partial bowel obstruction (100%) and lump in abdomen. In spite of best efforts the data for comparison could not be found.

It has been seen that patients of stricture tuberculosis present with Partial bowel obstruction (100%) Visible peristalsis (84%). In spite of best efforts the data for comparison could not be found.

Diarrhoea, (100%) and blood or pus in stool (72%) are the commonest symptoms. The patients of ulcerative tuberculosis. In spite of best efforts the data for comparison could not be found.

Patients of peritoneal tuberculosis mostly presents fluid in abdomen (44%) Intestinal obstruction (70%). In spite of best efforts the data for comparison could not be found.

It has been seen that patients of glandular tuberculosis presents with mesenteric lump (44%), pain abdomen (27%) and intestinal obstruction (27%). In spite of best efforts the data for comparison could not be found.

CONCLUSION

From the present study, conducted on the cases, clinically diagnosed to be cases of abdominal tuberculosis, following salient features can be drawn.

1. Diagnosis of tuberculosis can be made surely only after histopathological examination of cases
2. Tuberculosis affected males more commonly than females though some series reported that this disease is more common in female patients, while others reported it to be more common in males.
3. The most common age group, affected, was 20 to 30 years. This age group is reported, through out India, to be affected most. In Western countries, this disease is common at the age of 40 years.
4. The disease is so insidious that the duration of symptoms before attending hospital was one month to six months in most of the cases.
5. Clinical features of this disease were very helpful in diagnosis.

Certain feature like lump in abdomen, movement of 'gola' in abdomen and change in bowel habits were very common presenting features.

6. There was no one investigative procedure, except tissue histology or culture, which could differentiate this disease from other conditions.
7. Operative findings of abdominal tuberculosis were characteristic in certain cases, but in few cases biopsy of mesenteric lymph node and appendix could, establish the diagnosis.
8. After having diagnosed, the cases responded well with anti tubercular treatment and/or surgical procedures.

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