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General Surgery

A STUDY OF VARIOUS PRESENTATION OF TB ABDOMEN IN ACUTE SURGICAL CARE WARDS AN THEIR MANAGEMENT

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ABSTRACT This study is done to observe, identify the various acute clinical presentations and various treatment strategies of tuberculosis abdomen. A retrospective study of 32 patients admitted to emergency Surgical Department, Osmania General Hospital, presenting with "Acute Abdomen" who have been confirmed to have abdominal tuberculosis. The mean age of incidence was found to be 33.9 yrs. The male to female ratio in study was found to be 2.5:1. 21.8% of cases at time of presentation were in shock due to peritonitis. Intestinal involvement was found in 9 cases (28.1 %) in the form of strictures / perforation, all lesions seen in small intestine and ileocolic lesion. The most common surgical procedure resorted to was Adhesiolysis (50%). Acute presentations were found to be more common among males. Most common presenting symptom is abdominal pain, followed by nausea & vomiting, abdominal distention, fever & constipation in descending order of frequency. The most common clinical presentation was found to be intestinal obstruction (59.37%), followed by peritonitis. 18.75% of the cases presented with shock. On laparotomy the most common pathology was found to be obstructive pathology of lleocaecal region.

KEYWORDS : Abdominal Tuberculosis

INTRODUCTION:

The term "abdominal tuberculosis" usually denotes intestinal, glandular and peritoneal tuberculosis, which is far common than tuberculosis diseases of other abdominal viscera. Stenotic lesions of bowel have usually been believed to be tubercular in origin. Abdominal tuberculosis in our country is responsible for considerable morbidity and mortality, despite the impressive studies made in therapy and prophylaxis during the last two decades. The precise prevalence of Koch's abdomen has not been determined due to want of a survey in random sample of population and due to lack of specific parameters available for diagnosing and evaluating the results of therapy, unlike in pulmonary Koch's where definitive parameters are available[1].

The recent advent in technology have made the diagnosis more easier and faster especially, with the advent of newer modalities like Nucleic acid amplification studies estimation of ascitic fluid A.D.A levels etc., but their prohibitive high costs precludes them from routine use in our country. Surgery In abdominal tuborculosis is the optimal modality of treatment in cases of acute abdominal presentations, which are usually the complications of abdominal tuberculosis and in cases of diagnostic uncertainties. Better understanding of the natural courses, high clinical suspicion with introduction of newer and rapid modalities in diagnosis and treatment has changed the clinical outlook drastically in the patients with abdominal Koch's[2].

AIMS AND OBJECTIVES:

1. This study is done to observe and identify the various acute clinical presentations of tuberculosis abdomen.
2. To study regarding various treatment strategies of acute presentations of tuberculosis abdomen.

MATERIAL AND METHODS

A retrospective study of 32 patients admitted to emergency surgical department Osmania General Hospital, Hyderabad, presenting with "Acute Abdomen" who have been confirmed to have abdominal tuberculosis by Histopathology examination between 2017 to 2019 have been studied. The patients are selected from both sexes and from age group above 11 years.

INCLUSION CRITERIA:

The main criteria of selection of the patients was Histopathologically proven positive for tuberculosis of the intra operative specimens.

EXCLUSION CRITERIA:

Negative for tuberculosis were excluded from the study. Pregnant females and patients without Histopathological examination of intra operative specimen were excluded from the study. Patients with age group less than 11 years were excluded from the study.

All the patients in the study were subjected to laparotomy. Patient was surgically managed according to the mode of presentation. The various clinical; presentations have been analyzed and studied. All patients were subjected to preliminary chest x-ray and postoperative .Sputum examination for AFB to establish the incidence of pulmonary koch's in cases of abdominal koch's.

RESULTS

Age Incidence

11-20 yrs	6(18.7%)
21-30	11(34.3%)
31-40	8(25%)
41-50	3(9.3%)
51-60	3(9.3%)
61-70	1(3.1%)

Mode of Presentation

S.No	Presentation	No. of Patients
1	Obstruction	5 (59.35%)
2	**Peritonitis**	
a)	Perforation	1(3.1%)
b)	Perforation secondary to obstruction	7(21.8%)
c)	Other	5(15.6%)

Presenting complaints (Symptomotology)

S.No	Complaint	No. of Patients
1	Pain	32(100%)
2	Distension of abdomen	31(96.87%)
3	Fever	19 (96.87%)
4	Weight Loss	12 (37.5%)
5	Anorexia	12 (37.5%)
6	Nausea + vomiting	24 (75%)
7	Weakness + fatigue	14 (43.75%)
8	Constipation	19 (59.37%)
9	Diarrhoea	5 (15.6%)
10	Alternating Const. & Diarrhoea	1 (3.1%)
11	Night Sweats	0 (0%)
12	Bleeding / hemorrhage	2 (6.25%)
13	Cough with expect	7 (21.87%)
14	Amenorrhoea	3 (9.37%)
15	Haemoptysis	0 (0%)

Past History of Tuberculosis

S. No	No. of Patients with H/o TB	Patients on ATT + /-
1	7	7

Associated Pulmonary Koch's

S.No	Lesion on CXR	No. of Patients	Sputum AFB
1	Consolidation	1 (3.12%)	+
2	Infiltrates	4 (12.5%)	+
3	Cavity	1 (3.12%)	+
4	Effusion	1 (3.12%)	+
	Cavity + infiltrates	1 (3.12%)	+

Intra operative findings

S. No	Site	Obstruction	Perforation	Perforation secondary to obstruction	Others
1	Small intestine	0	1	7	0
2	Ileocolic junction	1	0	0	0
3	Small +large intestine	1	0	0	0
4	Extra intestinal	16	0	0	5
5	Intestinal + extra intestinal	2	0	0	0
	Total	19(59.3%)	1(3.1%)	7(21.8%)	5 (15.6%)

Perforation

S. No	Site of perforation	1	2	Multiple	Total
1	Jejunum	2	0	0	2 (25%)
2	Ileum	5	0	0	5 (62.5%)
3	Jejunum + ileum	0	1	0	1 (12.5%)
	Total	7(87.5%)	1(14.2%)	0	8

Adhesions

Site of adhesions	1	2	Multiple	Others	Total
Jejunum	2	0	0	0	2(8.6%)
Ileum	3	0	2	2	7(30.4%)
Ileocaecal junction	2	0	0	1	3(13.04%)
Multiple sites	0	0	11	0	11(47.8%)

Operative procedure

Procedure	No. of patients
Resection + anastomosis	9(28.12 %)
Adhesiolysis	14 (43.75%)
Laparotomy only	4(12.5%)
Suturing of perforation	1(3.1%)
Stricturoplasty	1(3.1%)
Adhesiolysis + appendectomy	1(3.1%)
Adhesiolysis suturing of perforation	1(3.1%)
Perforation closure + stricturoplasty +ileotransverse anastomosis	1(3.1%)

RESECTIONS

Procedure	No of patients
Small bowel resections	5(55%)
Right hemicolectomy	1(11%)
Limited resection	3(33%)
Total	9

Post op complications

		No of cases	Management
Complication	Wound infection	4	3 secondary suturing 1 conservative
	Paralytic ileus	2	2 conservative
	Hyper pyrexia	1	1 conservative
	Pronchopulmonary	0	
	Faecal fistula	0	
	Burst abdomen	0	
Hospital stay	0-7 days	0	
	8- 14 days	23(71.8%)	
	15- 21 days	6(18.75%)	
	22- 28 days	1(3.1%)	
	29- 35 days	0	

DISCUSSION

Abdominal tuberculosis though potentially curable, in our country is responsible for considerable morbidity and mortality, despite the impressive study made in therapy and prophylaxis during the last two decades. Primary disease without antecedental or associated pulmonary kochs is fairly common. in abdomen tuberculosis may affect the git, peritoneum, lymphnodes and solid viscera. Most patients have a chronic presentation but may present late with complications like subacute and acute obstruction and sometimes with a palpable mass as shown by **Szmigielsk W et al**[3] or strictures as shown by Kapoor[4,] Ahmed[5] and Gondal[6].

Histopathology and radiology is the mainstay of diagnosis. Most patients can be treated with anti TB therapy alone but some require surgery to relieve obstruction either by stricturoplasty or resection and anastomosis.

In a study by muneef et al[7], 42 % of cases where female which is only 28.2% in our study.

Demir K et al[8] observed most common symptoms and signs are abdominal pain 92.3% and ascites 96.2% respectively. Lapraroscopy with directed biopsy shows caseation in 76% non case atinggranulomas in 20% and non specific finding in 4% of cases. ascitic fluid was + for AFB in 3.8% cases, + culture 7.7% of cases.

S.K. Bhansali et al[9] did a clinical study of abdominal TB in 135 cases between 1963-67, in the study he observed 56.29% underwent emergency surgery. Among the acute cases 56.5% presented as obstruction, 22% as perforations. 5.5% as peritonitis secondary to caseating lymphnodes, 2.6% duodenal ileus and 10% as acute exacerbation of pain simulating appendicitis. In this study 31.5% of cases presented for the 1st time acute episode, rest and previous history of chronic intermittent pain. 65.6% were histopathologically (+ve), of which 68.2% showed caseation. Reseaction was considered ideal procedure in colonic and small bowel TB and short circuiting procedures were drain that obstruction was the commonest presentation.

Age	Present series	Bhansali S.K. et al	Demir K et al	Wig J et al[10]	Nair S.K. et al [11]
Range	11-70 yrs	7 months – 70 yrs	14-77 yrs	11- 60 yrs	11-60 yrs
Mean	33.8 yrs	30.1 yrs	34.8+/- 3.4 yrs	34 yrs	34 yrs

In our study the mean age was found to be 33.8 years the mean age in other studies was observed to be 30.1, 34.8 +/- 3.4 & 34 years.

The commonest mode or presentation was found to be obstruction in the present series and in the study done Bhansali, S.K. et al. In a' study of stenotic lesions of the bowel", Wig J et al observed the lesions to be tubercular origin in 68.7% of the cases. Nair, SK et al in a study of "Non traumatic intestinal perforations" observed 24% of the cases to tubercular origin. Tubercular perforations are uncommon and diagnosis may be difficult (sweetman and wise 1959; ahmed, 1962; Bhansali et al 1968).

Pain was found to be commonest complaint in all studies, followed by abdominal distension, nausea + vomiting, fever, constipation, diarrhea and weight loss being other common complaints in order of increasing frequency.

In both studies small bowel was found to be commonest site of pathology peritoneal & lymph nodal TB often co-exited, intestinal Koch's was frequently associated with these lesions.

Ileum was found to be commonest site of perforation in both series. These perforation were commonly found to be secondary to an obstructive pathology.

Resections was done in 28.12% & 24.4% of the cases present & Bhansali, S.K. et al series respectively. In all cases the specimen were sent for biopsy & showed evidence of tuberculosis.

More number of small bowel resections were done in the present series. In the large bowel resections limited resection was done in most cases.

Wound sepsis was found to be commonest comp. In both series which is 21.87% in our study and 22.96% in Bhansali, S.K. et al which is almost comparable in both the studies.

The overall mortality was found to be 6.25%. Mortality was mainly due to toxemia. Mortality is less at Osmania General Hospital when compared to other studies as well as postoperative morbidity, probably due to early intervention in doubtful diagnostic dilemma cases and administration of ATT promptly as Osmania General Hospital being tertiary care center.

CONCLUSION

1. Acute presentations were found to be more common among

males. Most common presenting symptom is abdominal pain, followed by nausea & vomiting, abdominal distension, fever & constipation in descending order of frequency.

2. The most common clinical presentation was found to be intestinal obstruction (59.37%), followed by peritonitis. Only 18.75% of the cases presented with shock. Abdominal tuberculosis often occurs independent of pulmonary tuberculosis; therefore a high degree of suspicion is necessary to make a clinical diagnosis of abdominal tuberculosis.
3. In acute presentation of abdominal tuberculosis, surgical management is the optimal method of treatment. The most common site of pathology was found to lleocaecal region. Most perforations were found to be secondary to an obstruction pathology {free perforation was found only in 1 case $_{3.1}$%}. In most of the cases without an intrinsic pathology simple adhesiolysis on Laparotomy was found to be satisfactory.
4. On laparotomy the most common pathology was found to be obstructive pathology secondary to an adhesion. Contrary to general belief, abdominal drains in a case of tuberculosis need not always lead to fistula formation.

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