

Incidence of abdominal tuberculosis in patients presenting with pain abdomen - A randomized study

Sushant Kumar^{1*}, Pranaya Kunal², Swetabh Suman³

¹Associate Professor, ²Assistant Professor, ³PG Student, Department of Surgery, MGM Medical College and LSK Hospital, Kishanganj, Bihar, INDIA.

Email: dr.kumarbhaskar@gmail.com

Abstract

Abdominal tuberculosis tends to present with non specific features and can be hard to diagnose. In MGM Medical college and LSK Hospital, 5 patients out of 150 admitted cases were diagnosed as a case of abdominal tuberculosis from a randomized study conducted between October 2012 to august 2014. The most common presenting complaints were abdominal pain (100%) and weight loss (80%). On clinical examinations the findings noticed are pallor (80%), abdominal distension (60%), visible peristalsis (20%), abdominal tenderness (40%), abdominal rigidity (20%), doughy feel of abdomen (20%), abdominal lump (20%), cervical adenitis (20%) and ascites (20%). The most consistent laboratory finding was low haemoglobin (80% had <10 gm%). The mantoux test was positive in 40% of the cases. An ultrasound scan of the abdomen revealed findings consistent with abdominal tuberculosis in 2 cases and a computed tomography scan was helpful in diagnosing rest of 3 cases. The other investigations used to reach diagnosis are erythrocyte sedimentation rate (ESR), stool for occult blood test, adenosine deaminase activity (ADA), straight x-ray abdomen, barium meal follow through, colonoscopy, diagnostic laparoscopy. After confirmation of diagnosis, a full course of antitubercular treatment which consists of isoniazide, rifampicin, pyrazinamide and ethambutol for first 2 months and isoniazide and rifampicin for next 4 months was given.

Keywords: abdominal tuberculosis.

*Address for Correspondence:

Dr. Sushant Kumar, Associate Professor, Department of Surgery, MGM Medical College and LSK Hospital, Kishanganj, Bihar, INDIA.

Email: dr.kumarbhaskar@gmail.com

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INTRODUCTION

Tuberculosis, even today, is a major health hazard in India. It continues to be responsible for considerable morbidity and mortality despite tremendous strides made in therapy and prophylaxis during the last 3 decades. The disease has made its ominous impact felt throughout the ages, and was once rampant in most continents of the world. Priority for its diagnosis and control, therefore assumes great importance, especially in India, where the magnitude of the problem is still stupendous, causing

considerable sufferings. Abdominal tuberculosis is defined as infection of the peritoneum, hollow or solid abdominal organs with mycobacterium tuberculosis¹. Abdominal tuberculosis is the sixth most common form of tubercular infection after pulmonary tuberculosis. Abdominal tuberculosis can spread to peritoneum through the GIT tract via mesenteric lymph node, or directly from blood, lymph or fallopian tube.^{2,3} The presenting signs and symptoms are often non-specific, and no laboratory investigation is pathognomonic. Radiological investigations are of some help, Endoscopy at times is rewarding, but not always. Therefore a high index of suspicion, fortified with a general degree of awareness and knowledge of this form of the disease is essential. Diagnosis of the disease at an early stage has its own beneficial effects. This study has tried to document the incidence of the disease, various forms of presentation of this notoriously elusive disease and tried to correlate the various investigative procedures at our disposal in order to have an insight into this disease.

MATERIALS AND METHODS

The present study was carried out in the department of Surgery, MGM Medical College and LSK Hospital, Kishanganj from October 2012 to August 2014. This study is approved by institutional ethical committee of hospital and informed consent has been taken up when the case were seen. The total number of cases selected for this study was 150. According to the presentation, the patients were clinically divided into 2 broad groups: those who were admitted as acute emergencies and those who came with a chronic presentation. A large number of cases of this series presented with acute abdomen and were admitted through emergency. All the patients were examined for sign and symptom of disease on admission. A detailed history was taken and examination was done. The findings of these examinations were noted. The investigations done on the patients were haemoglobin, differential white blood count, erythrocyte sedimentation rate (ESR), stool for occult blood test, mantoux test, adenosine deaminase activity (ADA), straight x-ray abdomen, barium meal follow through, ultrasonography of abdomen, colonoscopy, diagnostic laproscopy, computed tomography (CT).

OBSERVATION

In this study 150 cases were studied, out of which 60 cases presented with acute symptoms and 90 cases presented with a chronic history. Abdominal tuberculosis was diagnosed in 5 cases on the basis of clinical sign and symptoms and diagnostic investigations. Out of 5 cases of abdominal tuberculosis 3 were female and 2 male showing the male to female ratio of 1:1.5. 60% of the patients were between 21 to 60 years of age. Pain was found to be the presenting symptom in 100% of the patients. The incidence of other symptoms in this study were fever (40%), weight loss (80%), vomiting (40%), night sweats (40%), constipation(20%), cough(40%), menstrual disorder (33%). The clinical signs observed in this study were pallor (80%), abdominal distension (60%), visible peristalsis (20%), abdominal tenderness (40%), abdominal rigidity (20%), doughy feel of abdomen (20%), abdominal lump (20%), cervical adenitis (20%) and ascites (20%). According to some studies the female: male is 1.3:1 Sircar et al, presenting symptoms are pain (100%) Talwaretal, fever (40.3%) Mukkewar et al, weight loss (83%) Mandaletal.⁴⁻⁷ The clinical signs noted by some studies are pallor (79%) Mandaletal⁷, Abdominal distension (58.2%) Das et al⁸. Doughy feel of abdomen (14%) Vakiletal⁹, visible peristalsis (22%) Bhansalieta¹⁰.

RESULT AND ANALYSIS

Table 1: Age and sex incidence

Age in years	Male	Female	Total	Percentage
<20	0	1	1	20%
21-40	1	1	2	40%
41-60	0	1	1	20%
>60	1	0	1	20%
Total	2	3	5	100%

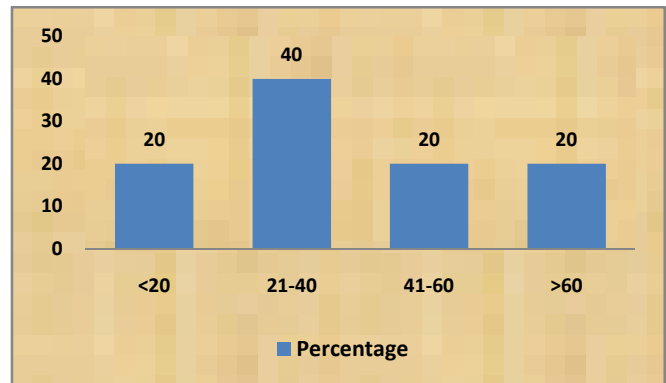


Figure 1: Age distribution

Table 2

Sr no.	Symtoms	No of Cases	Percentage
1	Abdominal pain	5	100%
2	Fever	2	40%
3	Weight loss	4	80%
4	Vomiting	2	40%
5	Night sweats	2	40%
6	Constipation	1	20%
7	Cough	2	40%
8	Menstrual disorder	1	33.33%

Table 3

Sr no.	Signs	No of Cases	Percentage
1	Pallor	4	80%
2	Abdominal distension	3	60%
3	Visible peristalsis	1	20%
4	Abdominal tenderness	2	40%
5	Abdominal Rigidity	1	20%
6	Doughy feel of abdomen	1	20%
7	Abdominal cramp	1	20%
8	Cervical Adenitis	1	20%
9	Ascites	1	20%

DISCUSSION

In our study, the incidence of abdominal tuberculosis was 3.3%. The study shows that 80% of the patients have haemoglobin less than 10 gm%, 40% of patients have raised ESR and 40% of patients have normal white cell count. 40% of the patients have positive for occult blood. Mantoux test was positive in 40% of the patients. In straight x-ray 66.6% have multiple air fluid level.

Bhansali et al (1968) found air fluid levels in 67% of cases¹⁰. Colonoscopy revealed stricture in caecum in 60% and ulceroproliferative growth in 20% of the cases. 60% of cases having persistent narrowing of terminal ileum on barium meal follow through. Ultrasound features suggestive of tuberculosis was found in 40% of the cases. The computed tomography scan showed mesenteric node with omental thickening in 1 case and 1 case had growth arising from large gut. Serum adenosine deaminase activity was found to be predictive in all diagnosed cases. Diagnostic laparoscopy was done in 5 cases which revealed mesenteric lymphadenopathy in 60% of cases, bowel wall thickening in 80% of cases. Due to cost factor and unavailability of PCR machines, this test was not conducted during this work.

CONCLUSION

This study shows that Tuberculosis is not uncommon in our country. Neither clinical signs, Laboratory, endoscopic method, radiological and histopathological findings provide a gold standard by themselves in the diagnosis of abdominal tuberculosis. The development of cheap and efficient procedures for early diagnosis remains one of the practical problems to battle this disease, because the only way to decrease morbidity and mortality of this disease remains early detection. Surgical therapy while relieving the immediate complaint, is not the sole management modality, and a full course of antitubercular chemotherapy must always be administered, keeping in mind that regular follow up is mandatory, not only to assess the prognosis. Antitubercular treatment is also required for chronic presentations, and in our study we have used a four drug regimen comprising of isoniazid, rifampicin, pyrazinamide and ethambutol for the first two months and

then a two drug regimen of isoniazid and rifampicin for the next four months. All the chronic cases (including those who were treated empirically) showed dramatic relief of symptoms on this regimen. A continual awareness on the part of the clinician of the possibility of abdominal Tuberculosis in many patients with obscure abdominal symptoms should avoid errors and aid in the detection of a condition, which if treated early, not only produces remarkable remission and relief on the part of the patients but also takes unnecessary burden off the health care services.

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