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Recent trends in Abdominal tuberculosis in India; a case series of 8 patients

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ABSTRACT

Background;abdominal tuberculosis constitute a small fraction of extrapulmonary TB worldwide and its diagnosis often pose a significant challenge due to nonspecific presentation. Several methods have been utilized to diagnose but still there is no confirmatory test is available till date.

Case study; prospective study

Discussion; abdominal tuberculosis mimick with many other gastrointestinal disease thatswhy it is very difficult to diagnose even no clinical symptoms is specific.patinets usually to and fro and treated like as recuurect case of subacute abdomen.we have used clinical data, biochemical radiological data and family history.on above data we have tried to confirm abdominal tuberculosis and when Anti tubercular treatment was started patient improves clinically.

Keywords: *serum adenosine deaminase, (SADA), Erythrocyte sedimentation rate(ESR). Antituercular treatment(ATT).*

1. INTRODUCTION

Abdominal tuberculosis is a highly prevalent disease worldwide. Tuberculosis is among the top 10 causes of death, globally. In 2017, 10 million developed tuberculosis with estimated death of

1.3 millions [1]. In India, WHO Global TB Report 2022 has clarified that India has, in fact, performed far better on major metrics as compared to other countries over time. India's TB incidence for the year 2021 is 210 per 100,000 population – compared to the baseline year of

2015 (incidence was 256 per lakh of population in India); there has been an 18% decline which is 7 percentage points better than the global average of 11%. These figures also place India at the 36th position in terms of incidence rates.

Abdominal tuberculosis constitutes about 10% of extra-pulmonary tuberculosis [2]. In our hospital we diagnosed 8 cases of abdominal tuberculosis within 10 month and all of them were unresolved cases of recurrent abdominal pain and fever and wandering like as to and fro between doctor. It was a great challenge to make diagnosis and treat patients accordingly.

There is some myth about abdominal tuberculosis that this is a rare disease of poor person and always associated with pulmonary tuberculosis [3]

Abdominal tuberculosis is a medical disease but due to diagnostic challenge usually present in late stage where surgery necessities. Surgery is performed about 15% cases half of them as diagnostic and half of them as a therapeutic due to complication like as abscess fistula perforation obstruction [4].

Case 1. 15year old female admitted with history of pain in lower abdomen on and from 3 months with loss of appetite and loss of weight.

Clinical examination; abdomen soft, non tender and no lump palpable. Past history insignificant.Family history; father had taken ATT 5 years backSongraphy; suggestive of normal.CECT abdomen; suggestive of right simple ovarian cyst with PID.Laboratory investigation; suggests increased lymphocytes (45%).ESR normal.montoux test; positive.S.A.D.A. increased about 15.35 IU/l.On basis of these evidences ATT (HRZE) was started patient get relief after 6 month of ATT

Case2. 17 years old male

COMPLAINS; pain in whole abdomen from 3 months, loss of weigh, loss of appetite. Clinical signs; doughy abdomen, mild tender all quadrantPast history; insignificant Family history; insignificant

Sonography; mildly enlarged mesenteric lymphadenitis CECT abdomen; not done

Laboratory; lymphocytes normal.ESR normal

Montoux test; positiveS.ADA; Increased (16.20 IU/L)

Case 3.26 years old married thin female came in OPD with Complains of pain in lower abdomen from 2 years on and off with loss of weight and loss of appetite with irregular menstrual cycle Clinical signs; doughy abdomen mild tender gritty like nodular appearance palpated.

Past history; insignificant Family history insignificant

Sonography; thickened bowel loops

CECT abdomen; Ileocaecal junctions pulled up with smooth wall thickening of the terminal ileum noted.multile paraaortic lymph node enlarged. Diffuse omental thickening with enhancing nodules seen.

Laboratory; lumphocytes normal, ESR increased (59 mm/h)r Montoux test; not done

SADA; increased (26 IU/L)

Case 4;

12 years old female

Complains of pain in abdomen from 2 years (on and off) with fever, loss of weight and appetite with abnormal bowel habbit

Clinical signs; doughy abdomen, mild tender all over abdomen Past history; insignificant

Family history; insignificant

Sonography; submesentric and enlarged abdominal lymph nodes CECT abdomen; not done

Laboratory test; lymphocytes normal, ESR normal Montoux test; negative

S.ADA; Increased (69.80 IU/L)

Case5.

11 years old female,

Complains of pain in abdomen from 2 years altered bowel habbit, fever on and off, loss of weight and loss of appetite

Clinical signs; pallor present, cervical lymph node, axilla and inguinal lymph node enlarged, abdomen mild tender only.

Past history; insignificant

Family history; cousin brother + for pulmonary tuberculosis Sonography; normal

CECT abdomen; not done

Laboratory test lymphocytes 35%, ESR 15 mm/hr Montoux test; negative

S.ADA; Increased (98.17IU/L)

Case6

9 years old girl

Complains of pain in abdomen on and off from 8 days altered bowel habbit, obstipation,loss of weight and loss of appetite Clinical signs abdomen distended, mild tender Past history; insignificant Family history; insignificant Sonography; multiple submesentric lymphnodes enlargement CECT abdomen; not done Laboratory test; lymphocytes increased (45%), ESR normal (16mm/hr) Montoux test; negative S.ADA; Increased (19.97 IU/L)

Case 7;19 years old male

Complains of of pain in abdomen since 20 days with fever on and off Alterd bowel habbit unable to pass flatus and faeces since 2 days Clinical signs; pallor present, distended abdomen, tenderness present, rigidity present Past history; insignificant

Family history; insignificant Sonography; multiple dilated small bowel loops suggestive of small bowel loop obstruction Cect abdomen; not done Laboratory test; normal Montoux test; not done S.ADA; Increased (27.31IU/L) Management; surgery

Exploratory laparatomy with adhesiolysis with double barrel ileostomy was done

Per operative there was stricture with intaluminal thickening at 5 feet distal to dudenojejunal junction with granulomatous lesion over mesentery and enlarged mesenteric lymph node Histopathology of lymph node; necrotizing granulomatous lymphadenitis Post operative management; ATT (HRZE)

Case 8; 8 years old female

Complains of pain in abdomen on and off since 1 year fever, loss of weight and loss of appetite Altered bowel habbit

Clinical signs; doughy abdomen mild tender Past history; insignificant Family history; mother positive for pulmonary tuberculosis and taken complete treatment Sonography; normal CECT abdomen; mesenteric lymphadenitis Laboratory test; increased lymphocytes (>49%), ESR normal Montoux test; negative

S.ADA; increased (51.9IU/L)

2. DISCUSSION

Abdominal tuberculosis is more common in developing countries. due to lack of awareness and education about immunization this disease get flourished.any patient with unexplained abdominal pain with weight loss and fever ,abdominal tuberculosis must be kept in mind during evaluation of disease. Noramly present with usual symptoms like as pain in abdomen,fever weight loss loss of appetite,altered bowel habbit [5] but may also present as constipation obstipation perforation. Abdominal tuberculosis is a great mimicker of many disese like as appendicitis crohn disese ca colon perforation obstruction .in this study only one case was managed surgically at time of presentation because of obstruction which is most common complication of abdominal tuberculosis. intropeative findings was suggestive of adhesion and narrowing of distal ileum due to hyperplastic mural tickening mesenteric lymphadenopathy granuloma lesion over small intestine [6].clinical signs like as doughy abdomen or distended abdomen may be present due to obstruction. Doughy abdomen need clinical expertise.obvious , imaging is first investigation for suspicious of abdominal tuberculosis but for confirmation we need biopsy from abdominal specimen and culture[7]. In sonography , lymphnode evaluation is very important [8] and for confirmation CT scan may be helful not only to assess lymph node but also about peritoneum, wall of intestine,any stricture or compression [9].IGRA was not used in tis study due to high cost and high negative predictive value.PCR was also not used due to high time consuming and frequently negative results.in this study Family history positive in three cases (37.5%) (1 from mother, 1 from father, 1 from cousin brother) means family history may play a very important role Past history in all case not significant means no cases was associated with primary pulmonary tuberculosis all case are secondary tuberculosis Sonography was positive in 6 cases (75%). Intestinal wall thickening in 1 case, mesenteric and abdominal lymph nodes enlarged in 3 cases, bowel loop obstruction in 1 cases, normal in 2 cases This means ultrasonography is the first imaging modality to suspect abdominal tuberculosis.findings may be intestinal wall thickening,abdominal or mesenteric lymph nodes or loop obstruction CECT abdomen was not done in 5 cases while in all three cases where ct had done there was suspicious lesion about tuberculosis, like as in 1 cases of mesenteric lymonadenitis, in 2nd cases pulled up caecum, thickening of wall of terminal ileum at Ileocaecal junctions. in 1 case right ovarian cyst with suspected PID was there.

Lymphocytes increased and positive in only 3 cases rest 5 cases are normal means positive in (37.5%)

ESR positive only in one case (12.5%) rest 7 case (87.5%) are normal Montoux test is positive in only 2 cases while as in four cases negative and in 2 casese this was not performed means 33% is positive 67% negative

Serum ADA Iincreased in all casese means 100% positive

On above discussion there is a strong conclusion that in clinical suspicious case of abdominal tuberculosis S.ADA and CECT abdomen is the only test that is confirm diagnosis 100%, While sonography remain as a first imaging modalities. montoux test, increased lymphocytes and increased ESR may help in diagnosis Treatment usually advice four drug regimen treatment for intensive phase [10]. still there is no clear consensus about duration of therapy, generally, the administration of isoniazid, rifampicin, pyrazinamide, and ethambutol within the first two months (intensive phase) and then isoniazid and rifampicin in the last 4–10 months (i.e., the continuation phase) represents the therapeutic schedule of choice. We treated our patients for an overall period of 12 months due to the complicated clinical manifestations at diagnosis

3. CONCLUSION

Every case of abdominal tuberculosis must be examined very carefully because, it is great mimicker of much abdominal disease, don't take as usual, high index of clinical suspicion is must. Past history, family history is also play an important role to make diagnosis of abdominal tuberculosis. Laboratory, radiology, histopathology is definitely play an essential role to confirm diagnosis. Instead all of this, no single test is yet available to confirm the disease. Decision regarding management

is also very challenging either conservative or surgery. Our study suggests that mostly abdomen tuberculosis if diagnosed early can be managed by conservative method. Data also suggest that how we should evaluate and what will be the basis of treatment for abdominal tuberculosis. Definitely, this is very small data and need to study more before any conclusion. In future they might help in making diagnosis.

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