

Acute Fulminant Amebic Colitis- A Case Report

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Abstract :

Intestinal Amebiasis is endemic in developing countries which could be explained by the low socioeconomic status, living in congested localities with poor sanitation. Ominous rare complication of intestinal Amebiasis is fulminant colitis with bowel necrosis leading to perforation and peritonitis. In fact diagnosis of fulminant colitis due to amebic etiology is seldom made preoperatively and it depends mainly on histopathology. In the present case patient had past history of vague abdominal symptoms which was neglected. Later he presented with acute perforation. Patient survived after prompt surgical resection. Histopathology was diagnostic of fulminating Amebic colitis.

Key words; Amebiasis, Acute fulminant amebic colitis.

Introduction:

Amebiasis is a parasitic infestation with significantly higher prevalence rates in developing countries, resulting in 1 lakh deaths per year.¹ Causative protozoan parasite, *Entamoeba histolytica* is a potent pathogen, which secretes proteinases, that dissolve host tissue, engulf RBC's and invades intestinal mucosa causing colitis.

Ominous rare complication of intestinal Amebiasis is fulminant colitis with bowel necrosis leading to perforation and peritonitis. It occurs in approximately 6-11% of symptomatic patients but is associated with high mortality rate of >50% and stems in part from delay in diagnosis and treatment.^{1,2}

Fulminant colitis is often not suspected clinically even in endemic areas. Diagnosis requires high index of clinical suspicion as stool microscopy has low sensitivity and relying on serology may delay the diagnosis. In fact diagnosis of fulminant colitis due to amebic etiology is seldom made preoperatively and it depends mainly on histopathology.³

Case summary:

A 55 yr old male presented with several days of fever, abdominal cramps, chronic constipation, bleeding per rectum and itching in Perianal region. He was treated for typhoid 15 days back. Past history revealed recurrent abdominal cramps and diarrhea since many years which was neglected. Later he presented with abdominal distension and USG showed ascitis with features of

perforative peritonitis. On general examination patient was toxic and diffuse tenderness over abdomen. Explorative laprotomy and right hemicolectomy was done.

Gross examination showed hemicolectomy specimen ms 28X5cm. Caecum showed a perforated area on the surface. Cut section showed multiple discrete oval ulcers of varying sizes in caecum and ascending colon largest measuring 5x3cm with necrosed floor.

Microscopically intestine showed multiple deep ulcers extending up to muscularis propria and transmural necrosis. Amidst the necrotic debris were seen plenty of trophozoites of *entameba hisolytica* with phagocytosis of RBC and heavy neutrophilic infiltration. The PAS stain highlighted the trophozoites

Discussion:

Amebiasis is endemic in developing countries which could be explained by the low socioeconomic status, living in congested localities with poor sanitation ¹Amebiasis may involve any part of bowel but has predilection for caecum and ascending colon. It infects 10% of world's population and ninety percent of patients are asymptomatic. The infection usually spontaneously resolves within 12 months. The rest 10% with clinical

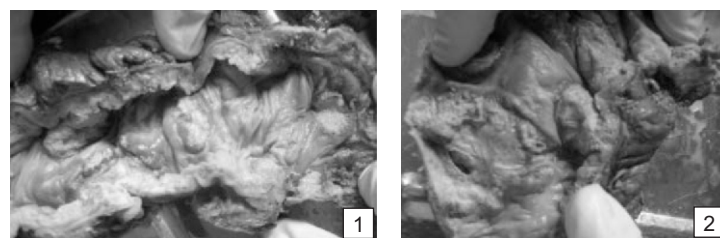


Fig 1&2- Multiple discrete oval ulcers of varying sizes in caecum and ascending colon

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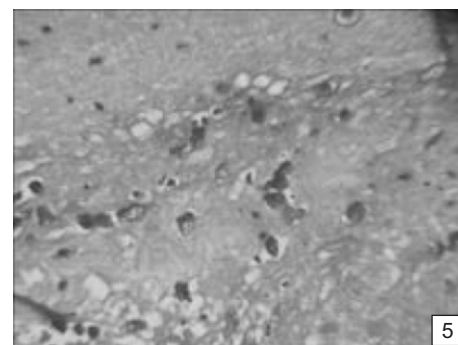
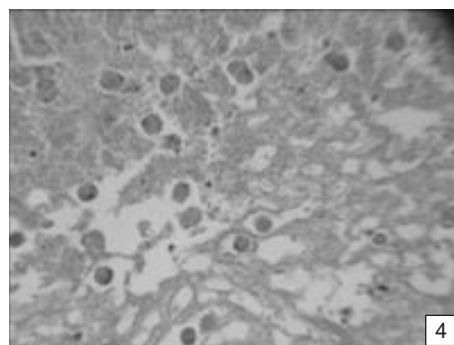


Fig 3&4(Low power H&E)- Multiple deep ulcers extending up to muscularis propria and transmural necrosis, plenty of trophozoites of *Entamoeba histolytica* with phagocytosis of RBC

Fig 5: PAS positive trophozoites

intestinal amoebiasis, present with diverse spectrum of illness ranging from vague abdominal symptoms like pain abdomen, distension, diarrhea, bloody stools to fulminating necrotizing colitis.²

Apart from its rarity, clinical significance of fulminant Amebiasis lies in the fact that the condition is difficult to diagnose and treat, and associated with a very high mortality rate.² Clinical symptoms, X-ray findings, cultures, and even serological studies are insufficient to make an accurate diagnosis.¹

Diagnosis is often difficult and confusing with idiopathic inflammatory bowel disease resulting in erroneous administration of steroids. Colonoscopic appearance and colonic tissue biopsy are helpful in differentiating Amebiasis from other forms of colitis. In fulminant cases, peritonitis being the commonest cause of death, early diagnosis and surgical treatment significantly decreases mortality as conservative treatment has no place in management.⁴

The presence of Amebic trophozoites as ratified by special stains such as PAS stain along with necrosis and ulceration of the colon justifies the morphologic diagnosis of fulminating Amebic colitis.⁵

Similar cases have been reported by Al- saad *et al* and Gupta *et al*.^{2,3}

In the present case patient had past history of vague abdominal symptoms which was neglected. Later he presented with acute perforation. Patient survived after

prompt surgical resection. Histopathology was diagnostic of fulminating amebic colitis.

Conclusion:

We emphasize that patients from endemic areas of Amebic dysentery presenting with symptoms of undiagnosed colitis should be presumptively treated with antiamebic drugs until the definitive diagnosis. Diagnostic procedures including stool examination colonoscopy, and biopsy should be employed, if diarrhea is unremitting, anemia and/or hypo albuminemia persist under antiamebic treatment or peritoneal sign becomes obvious or perforation is highly suspected, surgical intervention should be promptly undertaken for a favorable outcome. Definitive diagnosis is histopathology of the surgical specimen.

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