
Acute Fulminant Necrotising Amoebic Colitis

Robin Kaushik¹
Simrandeep Singh¹
Rajpal Singh Punia²

Departments of ¹General Surgery and ²Pathology, Government Medical College and Hospital, Sector 32, Chandigarh, India.

Corresponding Author: Dr Robin Kaushik
Email: robinkaushik@yahoo.com

Amoebiasis is a protozoal parasitic infection caused by *Entamoeba histolytica*, usually transmitted through feco-oral route. It can involve any part of the body but has a predilection for the gastrointestinal tract, particularly the cecum and ascending colon, and liver. The majority of patients with amoebiasis remain asymptomatic (90%).^{1,2} Symptoms usually occur when the disease becomes invasive, i.e., when the trophozoites invade the colonic wall, and resultant diarrhea with blood in stools is a common presentation.² Life-threatening acute fulminant necrotizing amoebic colitis (AFNAC) is a rare complication of invasive amoebiasis with a reported mortality of as high as 89%.¹

Case Report

A 72-year-old gentleman presented to our emergency with complaints of right iliac fossa pain for a period of 10 days. The pain was well localized, without any history of radiation, fever, vomiting, bladder or bowel symptoms. On examination, he was afebrile, with maintained blood pressure and a pulse rate of 80/minute. A vague, tender lump was felt in the right iliac fossa, and his ultrasound examination was suggestive of an appendicular lump. With this diagnosis, he was managed conservatively.

On the 2nd day of admission, the patient complained of an increase in pain and developed fever, tachycardia, and rebound tenderness over the lump. He underwent emergency laparotomy, which showed clumping of the omentum and small bowel over the cecum. Once these were removed gently, it was seen

that the anterior wall of the cecum and ascending colon was sloughed off, with a purulent collection in the region (**Figure 1**). The affected bowel was friable, and a limited right hemicolectomy was performed, and the proximal ileum brought out as an end ileostomy.

Apart from minimal wound infection and urinary retention, the patient did well in the post-operative period. His stoma began functioning, and he was discharged on the 9th post-operative day with instructions to follow-up regularly. Histopathology examination revealed multiple ulcers in the cecum and ascending colon with numerous trophozoites of *Entamoeba* present within them (**Figure 2**).

Discussion

AFNAC is a rare but deadly complication of invasive intestinal amoebiasis. It can lead to bloody diarrhea, toxic megacolon, perforation, peritonitis, and severe abdominal pain.² The aggressive course of the disease is attributed to the virulence of the organism as well as the host's immunity; elderly patients (age above 60 years), male sex, presence of comorbid conditions, alcoholism, leucocytosis, steroid use, dyselectrolytemia, and hypoalbuminemia are all associated with the development of AFNAC.^{1,2}



Figure 1: Resected specimen showing sloughed off anterior wall of the cecum and ascending colon with multiple ulcers and unhealthy mucosa.

The diagnosis can be challenging since it may not be possible to distinguish AFNAC from ulcerative colitis or Crohns' disease since they can have a similar presentation.¹⁻³ Clinical symptoms and signs, laboratory investigations, and radiology remain inconclusive in distinguishing between them. The presence of trophozoites, especially if showing erythrophagocytosis (ingested red blood cells in the cytoplasm) in fresh stool samples of symptomatic patients, was typically considered diagnostic; recently, erythrophagocytosis has been reported in non-pathogenic trophozoites too. Serological tests for amoebiasis are of doubtful value in endemic areas as they cannot distinguish between prior and present infection; antigen detection in stool and molecular techniques using polymerase chain reaction are highly sensitive, but not easily accessible. In the absence of these tests, the only means of definitely establishing the diagnosis may be a demonstration of trophozoites of *E. histolytica* on histopathology.⁴

Surgery should be expedited in AFNAC.¹⁻³ Bowel involvement dictates the extent of the colonic resection; primary anastomosis is usually precluded since the colon is very friable, and it is safer to resect and exteriorize the proximal and distal bowel to be restored at a later date.^{1-3,5} Amoebicidal therapy (metronidazole followed by luminal agents such as diloxanide furoate) should be given in suspected cases, and continued if the diagnosis is confirmed.

References

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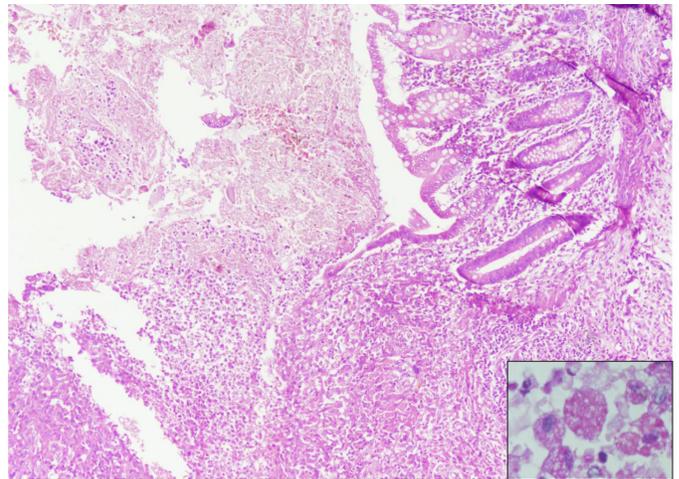


Figure 2: Photomicrograph showing intestinal epithelium lined tissue with necrotic slough having trophozoites of *Entamoeba* (HE-x-100) Inset shows *Entamoeba* trophozoites with ingested RBCs (PAS-x-400).

Acute Severe Pancreatitis and Bilateral Renal Cortical Necrosis

Richa Yadav¹
 Shivanand Gamanagatti¹
 Atin Kumar¹
 Subodh Kumar²

¹Department of Radiodiagnosis and ²Department of Surgical Disciplines, AIIMS, Delhi, India.

Corresponding Author: Dr Shivanand Gamanagatti
 Email: shiv223@gmail.com

It is well known that acute pancreatitis can be complicated by renal failure due to various mechanisms. In most cases, acute renal failure is due to acute tubular necrosis, and kidneys recover entirely with supportive care¹. However, acute renal cortical necrosis complicating acute pancreatitis is a rare event, and recovery is unlikely.