

FULMINATING AMOEBIC COLITIS TREATED BY COLECTOMY

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Amoebic colitis seldom presents as a surgical emergency. Operation may be demanded when serious haemorrhage from the colon does not respond to anti-amoebic therapy

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and blood transfusion. Perforations of the amoebic colon are of 3 types:

1. *Extraperitoneal type*, which presents as a pericolic abscess. It does not require urgent treatment, but may be treated conservatively at first and drained later if necessary.
2. *True intraperitoneal rupture* of an amoebic granuloma

or an acute ulcer, not associated with severe dysentery. These cases usually present as an acute abdomen and amoebiasis may not be considered in the pre-operative diagnosis. Early operation is advisable; the state of the surrounding bowel wall is fairly good and closure of the perforation can be performed without difficulty.

3. Intrapertitoneal perforation of the bowel occurring in a case of *fulminating amoebic colitis*. Acute fulminating colitis presents with severe diarrhoea, usually with a preceding history of chronic dysentery. The picture is one of severe dysentery, paralytic ileus and peripheral circulatory failure. The treatment of this condition is essentially medical.

In acute amoebic colitis, the ulcerative process is usually limited by the muscle layers of the bowel. This process generally heals with therapy or may develop into a chronic granulomatous condition, or in rarer cases it may progress to acute fulminating necrotizing enteritis, which is characterized by a thickened soggy bowel with areas of darkly coloured bowel covered with fibrinous exudate. The mucosa is almost completely destroyed by the ulcerative process. Free fluid, usually bloody-serous, is present in the peritoneal cavity. There is thus peritonitis present without frank perforation. It would appear that the bowel has become permeable to the passage of amoebae, secondary invaders, and toxins.

Perforations of the colon in amoebic colitis are uncommon, occurring in about 1-3% of cases admitted to hospital, but they are responsible for 10-20% of deaths from amoebiasis.

Perforation associated with acute fulminating colitis is regarded as being invariably fatal. We are not certain whether frank perforation does in fact occur in fulminating colitis or whether the permeability of the bowel alone, as described above, is responsible for the appearance seen in the peritoneal cavity.

Previous authors¹ have described how it has been noted at postmortem examination that the perforations have become sealed off, but it is uncertain whether perforation as such did, in fact, ever occur.

We wish to report a case of fulminating amoebic colitis in which the patient did not respond to intensive supportive measures and anti-amoebic therapy: a subtotal colectomy was successfully performed. We are unable to find a report of a similar case in the literature, but Nayman² formerly of Coronation Hospital, Johannesburg, and now of Alfred Hospital, University of Melbourne, Australia, successfully operated upon a patient with perforations in the transverse colon, which was the seat of amoebic colitis.

We should like to propose that, although colectomy should be considered to be a last-stand measure in these cases, it may be life-saving in a case that can be prepared for laparotomy.

CASE REPORT

A Bantu female, Elizabeth, aged about 50 years, was admitted to the Baragwanath Hospital on 6 August 1962. Her main complaints were abdominal pain for 3 days, and diarrhoea with bloody stools for 1 month; this latter condition had become very much worse over the previous 3 days.

On examination, the patient was found to be anaemic (haemoglobin 7.6 G/100 ml.), with a temperature of 100°F and a blood pressure of 110/60 mm.Hg. Her abdomen was distended and tenderness and guarding were present, especially over the lower abdomen.

Amoebae were found in her stools and she was put on i.m. emetine hydrochloride, 1 gr. daily, and oral 'terramycin', 500 mg. 6-hourly. She was given 1,500 ml. of blood and her

electrolytes were corrected with intravenous therapy.

On 8 August the patient's dysentery was worse. The abdomen had become even more distended, bowel sounds were absent, and there was evidence of free fluid in the peritoneal cavity. There was marked guarding in the right iliac fossa and some rigidity in this region. At this stage it was thought that perforation of the colon had occurred. It was decided to continue with medical treatment. The terramycin was now given intravenously, electrolytes were replaced intravenously, and a further 1,000 ml. of blood were given. Morphine gr. 1/6 was given 6-hourly to relieve pain and in an effort to control the dysentery.

The patient's condition continued to deteriorate, the abdominal distension increased, and the guarding and rigidity became more generalized. On 10 August it was decided that, in view of the continued downward course and the minimal response to intensive medical treatment, surgery should be attempted, in the form of either simple peritoneal toilet and drainage or colectomy, if this was found to be feasible at operation. The blood pressure was 80/0 at this stage. 1,000 ml. more of blood and 300 mg. of 'solucortef' were given with little improvement in her condition.

A lower mid-line incision was made under general anaesthesia later extended to a right paramedian incision. About 1,500 ml. of bloody serous fluid was present in the peritoneal cavity, and a fibrinous exudate was present over the sigmoid colon. The whole colon as far as the caecum was thickened and boggy and involved in the inflammatory process. Beneath the exudate, areas of discoloured bowel wall could be seen; these were presumed to be areas of impending perforation of the bowel. The small bowel was markedly distended, but was not involved in the inflammatory process.

A total colectomy was rapidly performed down to the recto-sigmoid junction; the colon was extremely friable, and in the mobilizing of the hepatic flexure the bowel tore, with some soiling of this part of the peritoneal cavity. The contents of the bowel here were noted to be blood, mucus and pus, with very little faecal material. The rectum was left unsutured and was dropped back into the pelvis. A rubber tube was passed up through the anus into the rectal stump to act as a drain. A terminal ileostomy was then performed in the right iliac fossa and the abdomen was closed in layers, with tension sutures through all the layers, and without further drainage. During the operation a further 1,000 ml. of blood were administered.

The patient's condition improved quite rapidly, and apart from some electrolyte disturbance in the form of hypokalaemia, the postoperative course was uneventful.

After the operation emetine hydrochloride was administered until a total of 10 gr. had been given and terramycin was continued for 5 days. The rectal tube was removed after 48 hours and thereafter neomycin sulphate, 2% solution, was instilled into the rectum twice daily for 14 days; this was then changed to streptomycin, 1 G daily for a further 10 days because culture of the purulent rectal discharge revealed *E. coli* sensitive to streptomycin. Amoebae were not found in the rectal discharge after operation.

The colon was sent for histological examination and showed the typical appearances of amoebic colitis, with amoebae present in the bases of the ulcers.

Biopsy of the rectal mucosa 5 weeks after the colectomy, showed non-specific chronic inflammatory reaction without microscopic evidence of amoebiasis. Macroscopically the rectal mucosa appeared normal.

The patient's general condition was improved on high-protein diet, blood and plasma transfusions, and supplementary potassium, the latter being given orally and on 4 occasions intravenously in the form of Ringer's lactate solution and potassium chloride.

On 25 September, 6 weeks after the colectomy, the abdomen was entered through the previous incision and an end-to-end ileoproctostomy was performed. One small abscess was found and evacuated from the right subhepatic region and there were a number of thin adhesions present between adjacent loops of small bowel, but very little evidence of the previous inflammatory process remained.

The patient recovered from this second operation unevent-