# Fulminant Pseudomembranous Colitis Leading to Total Colonic Stricture

Pages with reference to book, From 287 To 288

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## Introduction

Fulminant colitis can be a sequelae of a number of conditions like Salmonellae, Shigella, E. Coli, Yersinia and other bacterial infections[1]. Antibiotic associated pseudomembranous colitis is caused by clostridiuin difficle and can range from mild diarrhoea to fulminant colitis[2]. Furthermore, chronic conditions like ulcerative colitis and Crohn's disease can cause acute symptoms. Non-specific colitis is a ternunology used for cases where no obvious etiology is found for severe colitis[3].

## Case Report

A six year female presented with 8 days history of fever followed by abdominal pain, loose stools and vomiting. She had received antibiotics and antipyretics from her general practitioner but showed no improvement and her general condition deteriorated instead and she started passing blood and mucus per rectum. At the time of admission she looked very sick with high grade fever and moderate dehydration. There was diffuse abdominal tenderness and guarding. Rectal examinationrevealed blood and mucus. Bloodpicture showed a high total leucocyte count anda shift towards left suggesting acute inflanunatoty process. X-ray abdomen showed distended bowel loops and few air fluid levels. Stool examination revealed numerous pus cells. The patient was resuscitated with intravenous fluids and electrolyte imbalance was corrected. A provisional diagnosis of entenc fever was made and she was started on intravenous ofloxacin and metromdazole. Her general condition continued to deteriorate and the patient developed signs of peritonitis over the next 24 hours. An exploratory laprotomy was done. The whole colon from caecum to rectum was inflanuned and edematous with necrotic areas and small abscesses. Appendix was also gangrenous with localized abscesses. Ascending and transverse colon showed few areas of perforations. A greyish membrane was seen covering the mucosal surface of the colon. Ileum and proximal gut were totally spared of the inflammatory process. A divided defunctiomng ileostomy was performed about 10 cms from the ileocecal junction, perforations repaired and abdomen closed after a lavage. Biopsy was takenfrom the colonic mucosaforhistopathology. The report was suggestive of pseudomembranous colitis. Vancomycin was started intraluminally through distal ileostomy stoma in addition to intravenous metromdazole. Patient improved and was discharged. On follow-up, despite improvement in general condition, she continued to pour pus from the distal stroma. She was re-evaluated after 4 months.

Rectal examination revealed a very tight stricture about 4 ems from anal verge. Contrast cologram through the distal stroma showed a very thin and contracted colon from caecum to the descending colon (Figure).

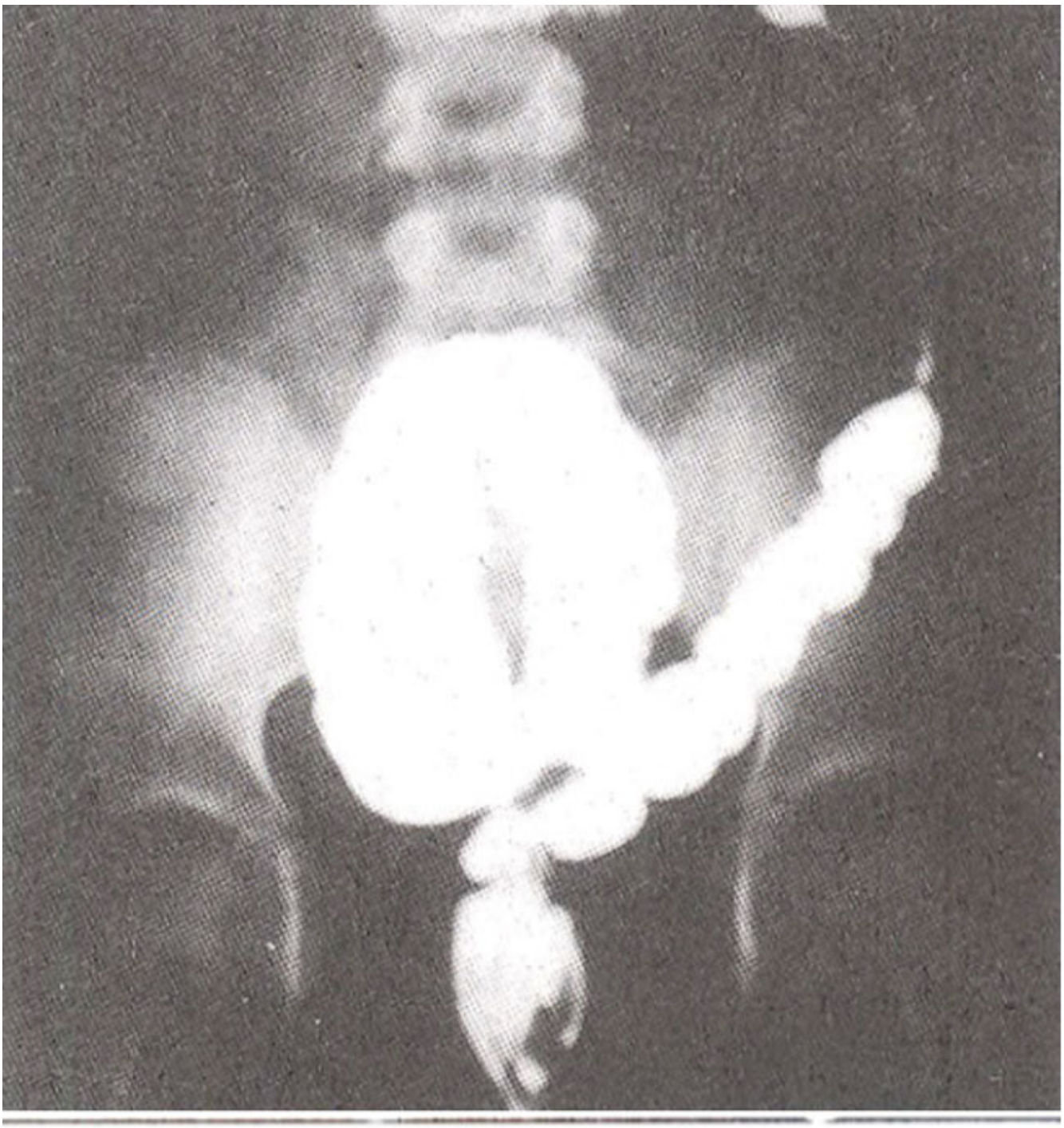

Figure.

Sigmoid colon, however, was partially affected with areas of narrowing. Rectum was also affected and a stricture was noted at its most distal portion. Patient was readmitted and a total proctocolectomy perfonned. Whole colon had become thick and strictured with a narrow lumen. Even the sigmoid colon and rectum which appeared relatively normal on contrast studies were found to be affected. Distal portion of ileum was used to fonn the rectal pouch leaving 2 cm segment of the ileum for ileo-anal anastomosis. Post-operative recovery was un- eventful. Ileostomy was closed after 2 months. Patient, a year later, is thriving well and has a good fecal continence.

## Discussion

Patients treated with antibiotics are at risk of bacterial overgrowth with resistant staphylococci in the bowel, but a more serious consequence of antibiotic therapy is pseudomembranous colitis (PMC). This entity is associated with overgrowth of clostndium difficle, an anaerobic organism producing toxins with little invasive capability. Although factors causing suppression of clostridium difficle in normal intestine are not understood, nevertheless, the normal intestinal flora are a suspect, since any distuibance of these flora is almost always associated with its overgrowth in these patients4. The symptoms vary from• self -limiting diarrhoea to severe diarrhoea, abdominal pain, fever, leucocytosis and potentially life threatening PMC[5]. In many cases of severe colitis a cause cannot be found and these are labelled as non-specific colitis. Most cases of non-specific colitis can be treated with broad spectram antibiotics according to the sensitivity ieport from stool culture orusing a combination of cephalosporin and metronidazole. Even closindium difficle associated colitis can be treated with metronidazole and vancomycinis reserved for either very severe disease or cases resistant to other forms of treatment[6]. Many surgeons prefer to do a total proctocolectomy at initial laparotomy infulminant colitis, but if the patient is vety sick and large perforations are not present; adefunctioningileostomy may be a safe pmcedure and major resections performed after the child becomes stable. Colonic stricture can occur, but as the patient improves and the inflammatory process subsides re-exploration and resection is easier and gives better long term results mternis of continence and restructuring of the new rectum[7,8]. Our case is an example where initial conservative approach although resulted in total colonic stricturing, was later on successfully treated by total proctocolectomy and new rectum formed with good fecal continence.

## References


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