

# CASE REPORT

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## MASSIVE INTESINAL HAEMORRHAGE SURGICAL TREATMENT FOR BLEEDING DUE TO ISCHEMIC COLITIS

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### HOW TO CITE THIS ARTICLE:

C. Ananda Reddy, P. Chiranjeevi Reddy, A. Ravitheja, K. Jyothirmayee, G. Siddartha. "Massive Intesinal Haemorrhage Surgical Treatment for Bleeding due to Ischemic Colitis". Journal of Evidence based Medicine and Healthcare; Volume 2, Issue 2, January 12, 2015; Page: 178-181.

**ABSTRACT:** Ischemic colitis presenting with massive exsanguinating lower gastro- intestinal hemorrhage in five patients aged between thirty to forty years is described. After conservative measures failed to arrest the hemorrhage, the patients underwent laparotomy and colectomy. Intra operative colotomy was used to locate the diseased bleeding colonic segment. All the patients made uneventful post-operative recovery. Because of this unusual manner of presentation, new category of ischemic colitis-Exsanguinating ischemic colitis of young adults is proposed.

**KEYWORDS:** Ischemic Colitis, Intestinal Hemorrhage, Lower Gi Bleed, Laparatomy.

**INTRODUCTION:** Massive exsanguinating lower gastrointestinal hemorrhage is associated with lower gastro intestinal hemorrhage is associated with diverticulosis coli and with ileal perforation in typhoid disease.<sup>1</sup> Ischemic colitis characteristically produces mild rectal bleeding and is usually a disease of older patients with occlusive atherosclerotic disease of the intestinal vasculature. Frightening haematochezia in younger patients is not abnormal presentation of ischemic colitis. This paper reports five cases, aged between thirty to forty years, in whom ischemic colitis presented with massive lower gastrointestinal hemorrhage.

**MATERIAL AND METHODS-** Between March 2007 and March 2012, five patients presented at department of surgery. Santhiram Medical college hospital, Nandyal (A.P) with massive bright red rectal bleeding of sudden onset. There were three females and two males. The oldest patient was a female forty years old. The youngest patient was male thirty years old. The duration of symptoms varied from eight hours to four days. In all the patients rectal bleeding was frank blood and painless and there had been no episode before. Only one patient had fever prior to the onset of the rectal bleeding, for which he was treated with paracetamal tablet. The other four patients did not give any history of previous drug ingestion.

On examination, the general condition of the patients varied from satisfactory to state of shock. The blood pressure varied from 100/64 of Hg to 60/30 of Hg on admission. Tachycardia above 90/ min was uniformly present. The abdomen in all cases was not distended, not tender and without any palpable masses. Per digital rectal examination of all patients showed frank blood on the examining finger. The lower extremity pulses were all present. Procto sigmoidoscopy performed all cases showed normal mucosa to 25 cm with blood coming from above the endoscope. Stool microscopy did not show any ova or parasites. Widal test for salmonella was negative in all cases. There were no clotting abnormalities in any patient. An emergency barium enema was performed in three of the patients who could tolerate it, the others being too

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shocked. The contrast enema was not particularly helpful in determining the cause and the site of rectal bleeding. All patients were actively resuscitated with nasogastric tube suction which did not yield blood in any patient, intravenous saline infusion and blood transfusion, monitored by frequent observation of vital signs. The amount of preoperative blood transfusion given varied from one patient to the other, with a minimum of two units of whole blood for each patient. The duration of resuscitation varied from a few hours to twelve hours depending on the clinical condition of the patient. For all patients, resuscitation was continued in to the intro-operative and post-operative periods. Those in shock had earlier operative intervention. Operative intervention necessary for all five patients since rectal bleed did not stop.

**OPERATION:** All patients were explored through a midline laparotomy incision. The stomach, duodenum, small intestines were carefully inspected. They were normal in all cases, and did not contain blood. The caecum, ascending colon, descending colon, contained blood in all patients. Multiple colotomies were performed in the caecum, ascending colon transverse colon descending colon to inspect the colonic mucosa. All patients had bleeding lesions in caecum and ascending colon. The transverse colon and the descending colon were variably involved.

The operative treatment given was as follows:

- A. Involvement of the caecum and ascending colon only: - Right hemicolectomy and end to end ileotransverse Anastomosis.
- B. Involvement of the caecum, ascending colon, transverse colon: - Subtotal colectomy and end to end Ileo Sigmoid Anastomosis.

Bowel preparation was not used in any patient. At laparotomy, the superior and inferior mesenteric arteries are carefully palpated, and the pulsations of the terminal vascular arcades observed. In all cases, the mesenteric arteries were patent, and the pulsations of the terminal arcades clearly visible. There was no evidence of intra abdominal occlusive vascular disease in any patient. Intra operatively, each patient received a intravenous bolus dose of metronidazole 500mg, gentamycin and third generation of cephalosporin's 1gram. All three drugs were administered postoperatively for seven days.

**RESULTS:** The rectal bleeding stopped immediately with operation in all patients. There were no septic complications. All the five patients had uneventful post-operative recovery. The resected specimens were histopathologically examined, and all had the diagnosis of ischemic colitis. Four out of five patients underwent right hemicolectomy and one had subtotal colectomy. The subtotal colectomy patient and three right hemicolectomy patient patents were hypotensive on admission. Intra operatively, the subtotal colectomy patient had more extensive disease, giving them a larger surface area to bleed from. Contrast study showed ulcers on the caecum in one case gave good clue to the site of bleeding. Extensive disease, and delay in reporting to hospital, produces a devastating effect on the cardiovascular system.

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| SL. NO | SEX | AGE | OPERATIVE FINDINGS   | PROCEDURE PERFORMED                                      |
|--------|-----|-----|--|--|
| 1      | F   | 40  | Ulcerated Bleeding from transverse fissures in mucosa of cecum, ascending colon and transverse Colon | a) Subtotal Colectomy<br>b) Ileo Sigmoid Anastomosis     |
| 2      | M   | 30  | Bleeding Lesions from Caecum and Ascending Colon   | a) Right Hemicolectomy<br>b) Ileo Transverse Anastomosis |
| 3      | M   | 35  | Acute Bleeding From Circular Ulcer of Size 0.5 cm Situated in mucosa of Caecum                       | a) Right Hemicolectomy<br>b) Ileo Transverse Anastomosis |
| 4      | F   | 37  | Serpeginous Ulcer Bleeding Lesions in the caecum and Ascending Colon                                 | a) Right Hemicolectomy<br>b) Ileo Transverse Anastomosis |
| 5      | F   | 33  | Superficial Ulcers, patchy Ulcers in caecum and Ascending Colon                                      | a) Right Hemicolectomy<br>b) Ileo Transverse Anastomosis |

**DISCUSSION:** Ischemic colitis has been categorized by Dharia and associates<sup>2</sup> in to two forms:

- 1) PRIMARY ISCHEMIC COLITIS: This is essentially a disease of the elderly with arterio sclerosis.
- 2) SECONDRY ISCHENIC COLITIS: This occurs in patients with demonstrable cause other than arteriosclerosis. Drugs, allergies, parasitic disease, etc.

**Millerand associates<sup>3</sup> described third variety:**

- 3) EVANESCENT COLITIS OF YOUNG ADULTS: This occurs in young adults, is transient, has no demonstrable cause and undergoes total and spontaneous resolution over a few days.

Our patients in this series, do not quite fit into any of these defined categories. They may be better considered as belonging to a new fourth group of Exsanguinating ischemic colitis of young adults.

The patients had the following characteristics in common.

- 1) The patients were young people below forty years of age.
- 2) They all presented with exsanguinating massive lower gastrointestinal hemorrhage which did not responsive to conservative management.
- 3) Right half of colon is mostly involved in the process.
- 4) There were no demonstrable causes for the colonic ischemia.
- 5) Absence of thumb printing sign on barium enema.

Uden, P.et al<sup>4</sup> reported the use of selective mesenteric arteriography in massive lower gastro intestinal hemorrhage, for bleeding site. They had 57% success rate. Their group B

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patients were similar to our patients only in so far as there was no preoperative attempt to localize the bleeding site. Other techniques such as pre-operative and intraoperative colonoscopy<sup>5, 6</sup> and radionuclide imaging<sup>7</sup> have also been employed to demonstrate the bleeding site, all with limited success. In spite of adverse reports,<sup>8</sup> intra operative colotomy can be a useful technique for localizing the bleeding diseased area of colon, as in our group of patients. Adequate precautions should be observed in order to avoid the complications of intra peritoneal sepsis. All the colotomy sites must be included in the resected specimens as was done in our series.

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Date of Submission: 20/12/2014.  
Date of Peer Review: 22/12/2014.  
Date of Acceptance: 06/01/2015.  
Date of Publishing: 10/01/2015.