CASE REPORT OPEN ACCESS

Fulminant Pseudomembranous Colitis In Multi-Organ Dysfunction Syndrome Patient

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ABSTRACT

Pseudo membranous colitis also called Clostridium difficle colitis is the inflammation of colon associated with overgrowth of Clostridium difficle due to overuse of antibiotics. We report a case of fulminant pseudo membranous colitis, in a 26 year old female who was referred from other hospital with history of pain epigastrium, vomiting, and fever for the last ten days. She remained admitted there for five days and received injectable cefrtiaxone, tazocin, diclofenac, and anti-malarial drugs. Her symptoms aggravated along with black colored loose motions. She had past history of using omeprazole off and on. In ER on arrival she complained of abdominal pain, distension with irritability and blood mixed stool. X-ray abdomen showed free air. On abdominal tap fecal matter was found. Emergency laparotomy was done which revealed huge cecal, hepatic flexure, mid transverse colon, splenic flexure and mid left colon perforations with multiple ulcers. Distal ileostomy along with mucous fistula, after subtotal colectomy was performed. Patient was managed postoperatively in ICU and on ventilator support and showed gradual recovery.

Key words *Pseudo membranous colitis, Clostridium difficle, Fulminant colitis, Rational use of drugs.*

INTRODUCTION:

Pseudo membranous colitis/antibiotic associated colitis is the swelling or inflammation of large intestine due overgrowth of Clostridium difficle. Broad spectrum antibiotics such as cephalosporins, clindamycin, ampicillin, fluoroquinolones can cause this condition. Health providers can also pass on the infection to others. It occurs in mild, moderate and fulminant forms.[1] In this report we present our experience of managing on such patient.

CASE REPORT:

A 26 years old female with past history of intake of omeprazole 20mg once a day for pain epigastrium for the last 6 months, admitted in private hospital with complaints of fever, vomiting, pain epigastrium for the last 10 days. Ultrasound abdomen showed hepatomegaly, distended gladder with thick sludge. Her total leukocyte count was 12× 10/l, hemoglobin 8.7%, total bilirubin 21mg%, blood urea 224mg%, and serum creatinine 1.3mg%. She was treated with injection diclofenac, ceftriaxone, tazocin and anti-malarial drugs. In spite of this her condition worsened and she developed black colored loose motions and later referred to our set-up.

She was admitted and repeat investigations showed TLC 15.8×10^9/L, neutrophils 85%, hemoglobin 5g/dl, PT 25/13, APTT 43/34 second, serum. potassium 3.1mmol/l, sodium 143mmol/l, urea 17.4mmol/l, creatinine 85mmol/l, serum amylase 240U/L. Ultrasound revealed free intra-abdominal fluid, dilated gut loops. X-rays abdomen showed pneumoperitoneum. On abdominal tap fecal matter was found. Diagnosis of acute fecal peritonitis made and emergency laparotomy was done. Huge and multiple perforations in cecum, hepatic flexure, mid-transverse colon, splenic flexure and mid left colon with multiple ulcers covered with yellowish membranes, gangrenous patches and bleeding were found. Subtotal colectomy along with distal ilesotomy and mucous fistula was performed. Patient was placed on ventilator alongwith inotropic support. Patient showed gradual postoperative recovery in 24 days and later discharge. Histopathological report confirmed the diagnosis.

DISCUSSION:

Pseudo membranous colitis is an acute inflammatory condition of colon that results from overuse of antibiotics that change the balance of normal gut flora, allowing overgrowth of Clostridium difficle

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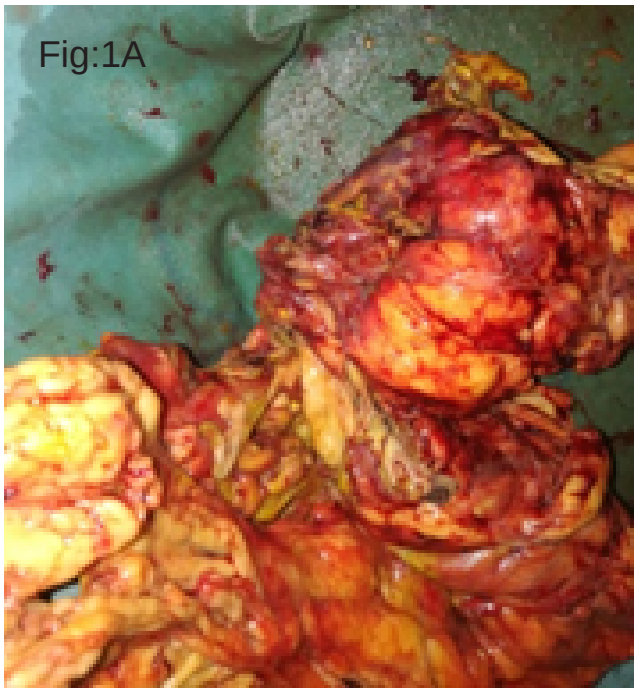

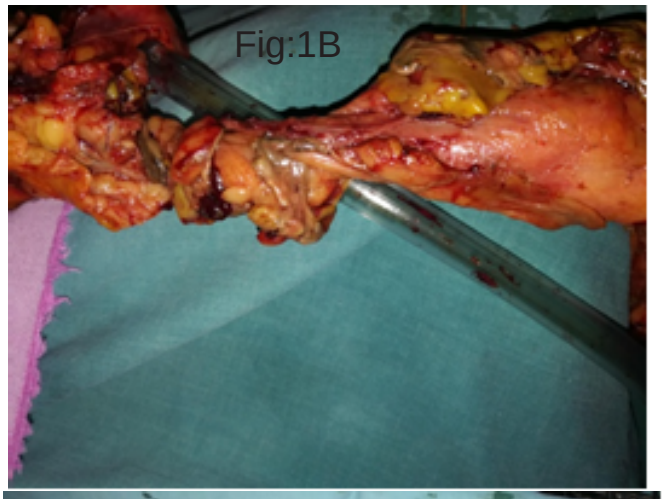

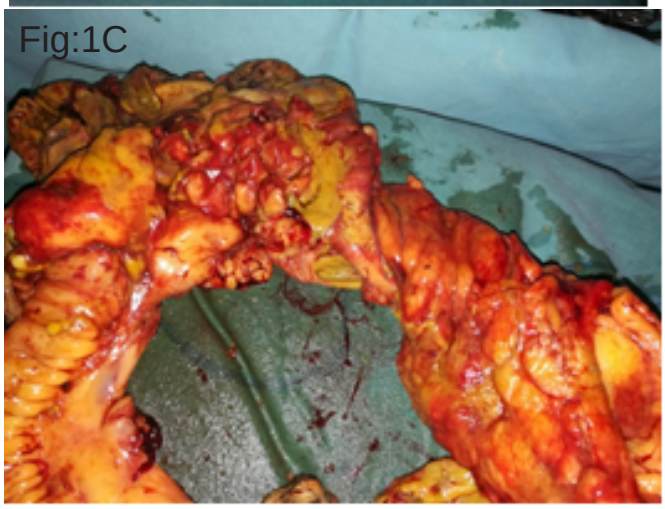

Fig I: Fulminant Clostridium difficile pseudomembranous colitis: Multiple perforations, gangrenous patches with, ulcers and yellowish membranous peel.

which produce toxin A and B.[2] Toxins attack mucosal membrane of mucosal cells resulting in cellular changes as cytoplasmic contraction, hemorrhage, inflammation, cellular necrosis and protein loss. Bowel ischemia, surgery, uremia, dietary change, chemotherapy and shock are other risk factors.[3] Pseudo membranous colitis complicates 10% cases of antibiotic-associated diarrhea. Patients may present with bloody/watery diarrhea, fever, abdominal pain, abdominal tenderness, distension, electrolyte imbalance and shock. The spectrum of disease in Clostridium induced infection can range from benign, self-limited diarrhea to fulminant pseudo membranous colitis, toxic mega colon, perforation, shock and even death.[4] Our patient had similar presentation and was in advanced stage of disease. In making diagnosis ELISA technique for documenting toxin A is helpful while PCR is more specific for both toxins A and B in fecal specimen.[5]

Medical treatment includes avoidance of narcotics or anti-diarrheal agents, changing of antibiotics, maintenance of hydration and electrolyte balance. Use of vancomycin or metronidazole are recommended.[6] In fulminant cases, emergent colectomy, distal ileostomy are advised along with strict monitoring for hemodynamic stability in postoperative period in ICU.[7] Our patient underwent emergency laparotomy and following sub total colectomy and ileostomy, was provided ventilator support in ICU.

The overall mortality in pseudo membranous colitis is 2%. With surgical intervention mortality and morbidity in toxic megacolon are 35% and 66% respectively. Appropriate and timely treatment may help to reduce mortality. Vancomycin and metronidazole remain the primary antibiotic treatments of choice. Our patient gradually recovered and later discharged.

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Received for publication: 22-11-2018

Accepted after revision: 20-03-2019

Author's Contributions:
Khalid Ibrahim: Manuscript writing.
Mannan Masud: Data collection.
Waqas Ahmed: Data collection.
Bushra Aman: Data collection.
Rabia Mushtaq: Data collection.

Conflict of Interest:
The authors declare that they have no conflict of interest.

Source of Funding:
None

How to cite this article:
Ibrahim K, Masud M, Ahmed W, Aman B, Mushtaq R. Fulminant pseudomembranous colitis in multi-organ dysfunction syndrome patient. J Surg Pakistan. 2019;24(1):51-53. Doi:10.21699/jsp.24.1.12.