An Unusual Presentation of Pseudomembranous Colitis

Dr Prashanth[1] B, Dr mahesh[2], Dr Mahendra pauskar[3]

1.MBBS,junior resident of medicine deparment Goa medical college
2.MBBS, junior resident of medicine deparment Goa medical college
3.MBBS, junior resident of medicine deparment Goa medical college
Corresponding author:DrprashanthB,Dr Mahesh

ABSTRACT:
Pseudomembranous colitis is a kind of inflammatory colitis characterised by raised yellow-white plaques on the mucosa that consolidate to create pseudomembrane. Abdominal discomfort, diarrhoea, fever, and leucocytosis are frequent symptoms of the illness. Because pseudomembranous colitis is frequently linked to C. difficile infection, stool tests and empiric antibiotic therapy should be started as soon as possible if the infection is suspected.

In the appropriate clinical environment, early GI consultation and lower endoscopy would be the next step if C. difficile tests is negative and symptoms persist despite appropriate empiric therapy. Colonic biopsies should be performed if pseudomembranous colitis is confirmed colonoscopically with biopsy, since histology can provide useful clues to the underlying diagnosis.

Patients usually presents with mild abdominal cramping pain, fever and diarrhoea ,bleeding in case of fulminant colitis which is dramatic condition, which leads to toxicmegacolon, ,perforation. This article reports such arare case of pseudomembranous colitis with rectal bleeding.

KEYWORDS: **Pseudomembranous colitis,c.defficile,colonoscopy,biopsy**

I.INTRODUCTION

Pseudomembranous colitis is an inflammation of colon characterized by elevated yellow white plaques that coalesce to form pseudo membranes on the mucosa.

It is commonly attributed to the bacterium clostridium difficile, long term use broad spectrum antibiotics and a state of immunosuppression.

This disease. Commonly affects the middle aged and elderly.

The other causes of pseudomembranous colitis should be ruled out such as immunological causes, bacterial,viral,parasitic,drugs,toxins etc.By appropriate testing and management complications such as colon gangrene,colonic, perforation, fulminant colitis and other severe complication can avoidable.

II .CASA PRESENTATION

A 55 year old female, known case of diabetes mellitus, renal calculus disease , stage 4 chronic kidney disease with bilateral DJ stent insitu presented with decreased urine output for the last 2 days ,breathlessness for the last 5 days.

On examination patient was having pallor ,bilateral pedal edema ,acidotic breathing with flaps. Patient was dialyzed in view of decreased urine output and severe metabolic acidosis, renal USG was done suggestive of bilateral moderate to severe hydronephrosis and hydroureter,refered to urology and was taken for bilateral DJ stent exchange and Patient was started on antibiotic cefaperazone and sulbactum.

During hospital stay patient started to spike ,abdominal distension, abdominal cramp with loose stools (10 to 15 bowel movements per day) with passage of blood and pus per rectum.

There is past history of repeated urinary tract infection for which patient was on antibiotic for quite sometime.

On examination, she had an pulse rate of 110bpm and blood pressure of 110/70 mmHg. She was febrile and clinically pale :the abdominal examination revealed tenderness and guarding in the bilateral iliac fossae, on digital rectal examination, the rectum was filled with loose stools mixed with blood and pus.

Neurological, cardiovascular, respiratory examination were within normal limits.

III. INVESTIGATIONS

Her laboratory tests revealed the following :
Complete hemogram showed hemoglobin - 7gm/dl platelet counts – 2.45 Lac/dl.
Total count : 17000/mm3 with neutrophil predominance of 94%.
Stool routine microscope was showing pus cells

Blood urea – 143 mg/dl, serum creatinine – 5.6 mg/dl,Na – 138,k – 4.6,Cl – 102,
Total bilirubin – 0.86,Direct bilirubin – 0.28,Total protein – 6.8, Alb – 3.6, globulin - 3.2, SG0T – 37 SGPT – 24, ALP – 169.

Abdomen ultrasound showing increased echogenicity of pericolic region with minimal fluid collection in peritoneum.
Colonoscopy was suggestive of showing multiple yellow nodules with occasional ulcers and normal intervening mucosa, biopsy was taken which revealed pseudomembranous colitis.
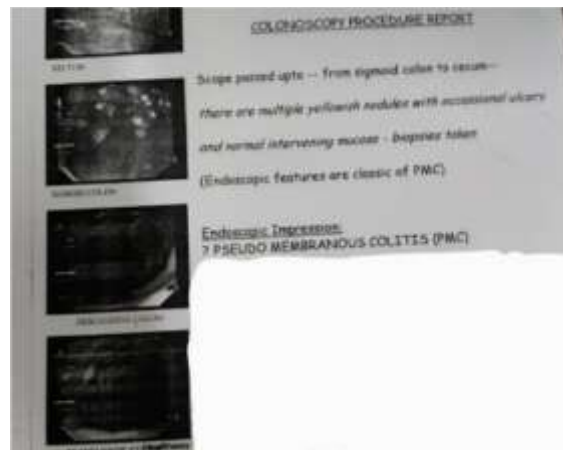

Fig 1 : Examination of colon by colonoscopy showing multiple yellow nodule with occasional ulcers and normal intervening mucosa.
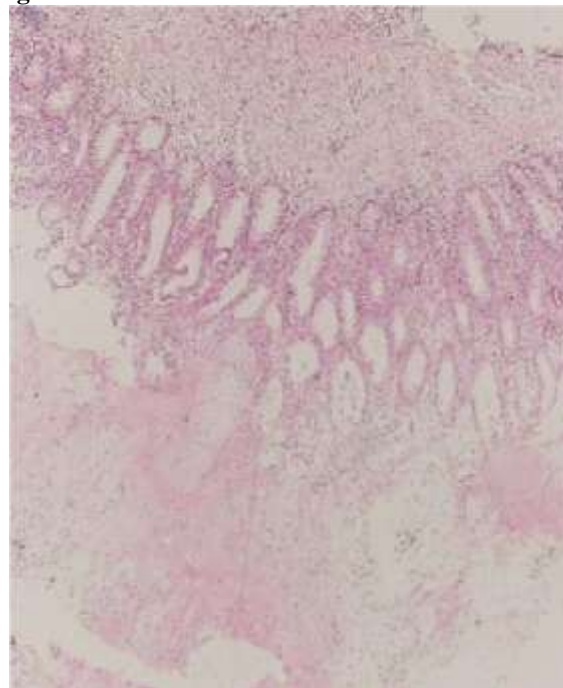
Histopathology report of large intestine:

Fig 2: Histopathological study suggestive of adherent inflammatory exudative plaque formation mainly made up of damaged colonic mucosa and necrotic debris, and infiltration of inflammatory cells

IV. TREATMENT AND OUTCOME
Patient was diagnosed as pseudomembranous enterocolitis and was started IV metronidazole 500mg 8hrly in combination with oral vancomycin 125 mg QID for 14 days and patient improved symptomatically was discharged after complete recovery.

V. DISCUSSION AND REVIEW OF LITERATURE

Pseudomembranous colitis is most commonly caused by clostridium difficile infection rarely also caused by other bacteria like Escherichia coli and klebsiella spp,viral colitis, cytomegalovirus,ischemic colitis,collagenous colitis ,inflammatory bowel disease and various drugs like clindamycin,ampicillin,and cephalosporins etc.

Usually patients presenting with this condition have a pre existing history of chronic drug intake,altered bowel habits or long term immunosuppression.

Patients commonly present with a mild to moderate disease and the symptoms range from diarrhoea, abdominal pain and fever to rarely abdominal distension and rectal bleeding ,the latter symptoms are attributed to a more fulminant presentation of pseudomembranous colitis which if untreated or unresponsive to medical management can lead to complicated disease with toxic megacolon or colonic perforation.

Enzyme immunoassays (EIA) for toxins A and/or B are the most common tests used to be done. Newer advances in the diagnosis of clostridium difficile infection include nucleic acid amplification tests (NAAT) such as polymerase chain reaction (PCR), and stool testing for glutamate dehydrogenase (GDH). NAAT appears to be much more sensitive than EIA (>90% vs. 40–80%) with high specificity, when compared against gold standard.

These cases of complicated disease require colectomy and have a high mortality of 38 to 80% which is more common in elderly age group ,so early diagnosis and prompt treatment is necessary.

Proposed criteria for severe disease include WBC count greater than 15,000/mm3, elevated creatinine (greater than 1.5 times baseline), advanced age, and/or hypoalbuminemia (serum albumin less than 3.0 g/dl).

Once a Clostridium difficile infection diagnosis has been established, it's essential to define the antibiotics or chemotherapeutic medicines that are causing the infection and to stop using them as soon as possible.

Although metronidazole has been used as a first-line agent since the late 1970s and early 1980s, the FDA has only authorised fidaxomicin and oral vancomycin for the treatment of clostridium difficile infection. The effectiveness of vancomycin and metronidazole in treating early and/or mild-to moderate bouts of Clostridium difficile infection has been proven in several trials.

VI. CONCLUSION

Acute fulminant colitis is a rare presentation in pseudomembranous colitis and can mimic inflammatory bowel disease.

The diagnosis is challenging in patients who do not have previous lower gastrointestinal complaints, especially when they do not have factors predisposing them to pseudomembranous colitis.

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