



Case Report

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Pseudomembranous Colitis After Ingesting Citrullus Colocynthis: A Case Report

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Abstract

Pseudomembranous colitis is an inflammation of the colon most commonly associated with C.difficile infection following antibiotic use. There may be other possible unique causes of the condition, such as the ingestion of medicinal plants. A 52-year-old male patient presented with sudden severe left lower quadrant abdominal pain that started 12 hours prior to admission and was associated with diarrhoea that progressed to rectal bleeding following citrullus colocynthis intake. Severe ulcerations were observed on colonoscopy, which were treated with metronidazole, leading to complete remission. Therefore, it is important that attention is paid to herbal intake history when presented with patients suffering from features of acute colitis.

Keywords: Pseudomembranous colitis, citrullus colocynthis, hematochezia

Introduction

Pseudomembranous colitis (PMC) is an inflammation of the colon wherein elevated yellow- white plaques form pseudomembranes on the colonic mucosal surfaces (1). It is most commonly associated with Clostridium difficile infection following antibiotic use, namely penicillin, cephalosporins, clindamycin and fluoroquinolones (1), causing changes to the intestinal bacterial flora. Clinical presentation of PMC may include watery or bloody diarrhoea, abdominal pain, fever, and leukocytosis (2)(3). PMC is primarily managed through cessation of the causative antibiotic followed by the administration of vancomycin, metronidazole or fidaxomicin for up to 14 days. Fecal transplant could also be done in recurrent and resistant cases (1). In the event PMC progresses to a more severe form of fulminant colitis or toxic megacolon, surgical intervention is indicated (3). This is a case report looking closely at other possible causes of PMC, particularly Citrullus colocynthis (L) Schrad., commonly called Colocynth, a medical plant used for its anti-inflammatory (4), antihyperlipidemic (4), antidiabetic (4)(5) and various other activities. In spite of its benefits, diarrhoea, hematochezia and vomiting are some of its complications (6).

Case Presentation

The patient is a 52-year-old male who presented to the ED complaining of sudden severe abdominal pain localised to the left lower quadrant 12 hours prior to admission. Pain was colicky in nature, non-radiating, and associated with bloody diarrhoea. There was no halitosis, dysphagia, hematemesis, vomiting or other gastrointestinal symptoms noted. History of perianal causes of hematochezia (haemorrhoids, fissures) was negative, though patient reported a history of arthralgia that started a few days ago, for which he took the colocynth medicinal plant.

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He is medically free and had no similar episodes in the past. Patient was not on any other medications. On physical examination, the patient was fully conscious. He was dehydrated, in pain, with tenderness on the left side of the abdomen. His blood chemistry showed normal white blood count. His ESR was 8 mm/hour. His liver and renal function tests were normal. Fresh blood was noted on per rectum exam.

Colonoscopy was performed within 12 hours of presentation and revealed severe ulcerations on the mucosal surfaces of the colon. Biopsy was obtained and showed exudative material forming a pseudomembrane on surface mucosa with sloughed glands.



Figure 1: Colonoscopy demonstrating multiple pseudomembranes with ulceration in the colon (arrows)

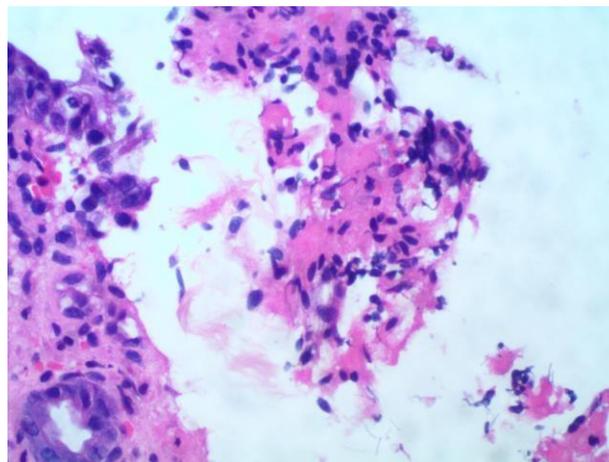


Figure 2: Pseudomembranes of exudative material over active colitis

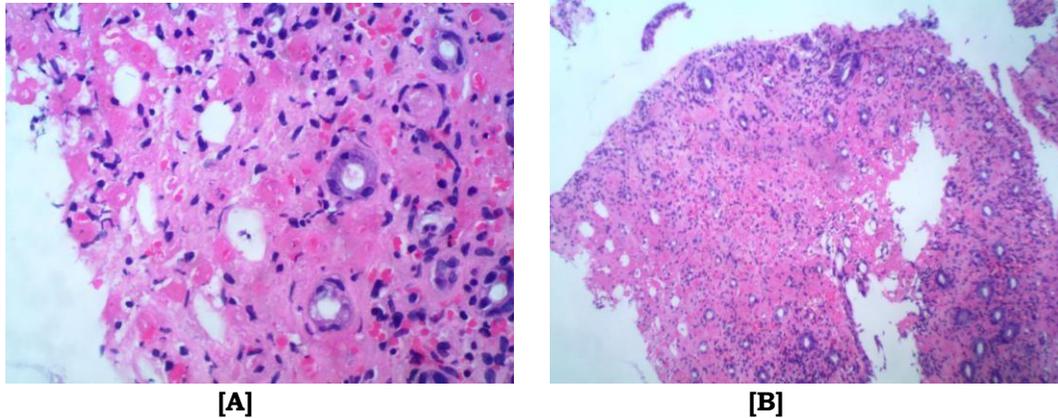


Figure 3A and 3B, Respectively: necrotic superficial glands with fibrinous material (X100)

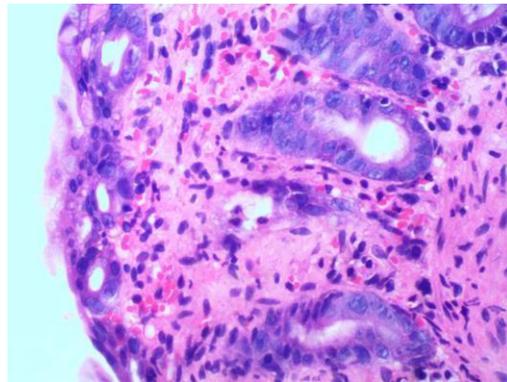


Figure 4: active colitis with glandular drop and cryptitis (X400)

Treatment commenced with metronidazole. On third day post-endoscopy, faecal stool test for *C. difficile* was ordered, and the result came back as negative. There was a significant improvement in symptoms 36 hours post-admission, with a drastic response to medical treatment.

Discussion

Citrullus colocynthis is cucurbit plant that is widely spread across the desert areas worldwide (4). It has medicinal properties, some of which are antidiabetic, anti-inflammatory, antilipidemic, and various others (4). It was found to be toxic, causing gastrointestinal tract irritation, leading to symptoms varying from a simple upset to bloody diarrhoea and severe colitis.

Our study shows the correlation between the ingestion of colocynth and the incidence of hematochezia. Similarly, a study executed in Iran presented 4 cases of patients who had taken the herb for hypoglycaemic control, and consequently developed an episode of bloody diarrhoea (6).

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Conclusion

Pseudomembranous colitis is an inflammation of the colon, commonly caused by antibiotic intake. Herbs, such as *Citrullus Colocynthis*, could also be a possible cause. Therefore, patients presenting with features of acute colitis and hematochezia should raise suspicions of herb ingestion.

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