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CASE REPORT

Ulcerative Colitis diagnosed for the First Time in a 93 year old Nigerian Woman: A Case Report

Odeghe EA[1], Ezuduemoih DE[1*], Oyeleke GK[1], Adeniyi OF[2], Adetona A[3]

[1]*Department of Medicine, College of Medicine/Lagos University Teaching Hospital, Lagos.*
[2]*Department of Paediatrics, College of Medicine/Lagos University Teaching Hospital, Lagos.*
[3]*Department of Anatomical Pathology, Synlab Nigeria, Lagos.*

ABSTRACT

Inflammatory bowel disease (IBD) is a chronic and life-long disease characterized by gastrointestinal tract inflammation caused by the interplay of the host's genetic predisposition, immune responses, and various environmental factors. It is characterized by chronic diarrhea, among other symptoms. Its spectrum comprises Crohn's disease (CD), Ulcerative Colitis (UC), and indeterminate colitis (IC).

Inflammatory bowel disease occurs in two peaks, the first at 15-25 years, and the second at 40-60 years. It is rarely reported in the extremes of age. Here we report the case of a 93-year-old woman with previously undiagnosed ulcerative colitis presenting as large bowel obstruction.

Keywords Inflammatory bowel disease; Ulcerative colitis; Large bowel obstruction; Elderly; Nigeria.

INTRODUCTION

Inflammatory bowel disease (IBD) is a chronic and life-long disease characterized by gastrointestinal tract inflammation. It is caused by the interplay of the host's genetic predisposition, immune responses, and various environmental factors.[1] The spectrum of IBD comprises Crohn's disease (CD), ulcerative colitis (UC), and indeterminate colitis (IC), and these manifest differences in the pathology and clinical characteristics.[1] Inflammatory bowel disease has two peaks, the first occurs at 15-25 years, and the second at 40-60 years. There is a female preponderance in CD, but no gender predilection in UC.[2] It is rarely reported in the extremes of age.

The incidence of IBD has been rising in Africa and Asia, supporting the argument that lifestyle and environmental factors may be important cofactors in its etiology.[3]. More than a hundred genes have been associated with an increase in susceptibility to the disease.[4] However, genetic susceptibility may not completely explain the high incidence and prevalence of IBD observed in developed and developing countries.[5]

***Corresponding author:** Daniel Ekhaeyouno Ezuduemoih*
Email: danpasezudu@gmail.com

Ulcerative colitis is a relapsing and remitting inflammatory disorder of the colonic mucosa. It may affect only the rectum (proctitis, in ~50%), or extend proximally to involve parts of the colon (left-sided colitis, in ~30%) or the entire colon (pancolitis, in ~20%). It may cause backwash ileitis but does not involve the small bowel. It is characterized by episodic or chronic diarrhea (bloody and/or mucoid), crampy abdominal discomfort, urgency, tenesmus, and constitutional symptoms such as fever, malaise, anorexia, and weight loss. Misdiagnosis of uncomplicated UC as amebic or bacillary dysentery is common.[2]

The histopathologic features include hyperemic/hemorrhagic granular colonic mucosa, pseudo-polyps, and punctate ulcers which may extend deep into the lamina propria; inflammation is (usually) not transmural. Complications include abscesses, intestinal obstruction, toxic megacolon, malabsorption, anemia, and venous thrombosis, while extraluminal manifestations include finger clubbing, pyoderma gangrenosum, primary sclerosing cholangitis, malignancy, arthritides, ophthalmic and dermatologic disorders. Diagnosis is made from a combination of clinical findings, colonoscopy, and histopathologic findings.[1] With the recent increase in the availability of diagnostic facilities, including colonoscopy, and increased awareness of UC in

Nigeria, its recognition and diagnosis have improved.[2]

CASE PRESENTATION

A 93year old woman presented to the emergency department with complaints of frequent passage of watery stools 12 hours prior to presentation. Stools were mucoid and non-bloody, and she had experienced 15 episodes before presentation. There was associated generalized colicky abdominal pain, anorexia, fever, and weakness, but no nausea or vomiting. Her last meal was prepared at home, and other family members who ate the meal did not develop any symptoms. She had no joint pain, skin changes, or mouth sores. Prior to this, she had experienced a few episodes of self-limiting watery, non-bloody diarrhea which had been diagnosed as acute gastroenteritis for over 2 years. However, relatives could not tell the length of the last episode before her admission. There was no family history of any chronic gastrointestinal disease, inflammatory bowel disease, or gastrointestinal malignancies.

Physical examination revealed an elderly woman who was febrile, pale, dehydrated with finger clubbing, conscious, and lethargic. Her pulse rate was 68 beats per minute, while her blood pressure was 130/80mmHg. The abdomen was distended, with generalized tenderness, guarding, and hyperactive bowel sounds. There were no significant findings in other systems.

The results of investigations revealed the presence of neutrophilic leukocytosis, anemia, azotemia, and hypoalbuminemia. A non-contrast abdominopelvic computed tomography scan showed the presence of rectal wall thickening suggestive of inflammatory bowel disease, with pseudo-obstruction, mesenteric and para-aortic lymphadenopathy. C-reactive protein was 134.38mg/l (normal value less than 7.4mg/l), fecal calprotectin was > 6000mg/kg (normal value <50mg/kg), while stool microscopy and culture did not yield any ova, parasite, or bacterial growth. A subsequent proctosigmoidoscopy showed the presence of multiple ulcers in the rectum and sigmoid colon, with friable mucosae, spontaneous bleeding, and pseudo-polyps [Fig 1 and 2]. Histology of biopsies taken at endoscopy confirmed the presence of ulcerative colitis with focal severe dysplasia [Fig 3 and 4].

Before the endoscopy, she received intravenous antibiotics and fluids. Following endoscopy and a definitive diagnosis of ulcerative colitis, the management plan was to commence steroids and mesalazine. However, she refused all further treatment despite counseling and a week after her endoscopy, her family decided to continue her care at home. She was then discharged home but died a few weeks thereafter. Her symptoms continued till death.

DISCUSSION

Inflammatory bowel disease may be challenging to diagnose especially in the elderly as it may mimic other forms of colitis such as infective, ischemic, diverticulosis, and colitis associated with non-steroidal anti-inflammatory drugs.[6] Symptoms usually present over several months to years but may present acutely, mimicking acute forms of colitis. Prior to this presentation, our patient had experienced a few episodes of self-limiting, non-bloody diarrhea, which on each occasion had been diagnosed as acute gastroenteritis. Even though she had extensive ulcerations and spontaneous bleeding on endoscopy, she and her family denied that she had ever passed blood in her stools. The self-limiting/acute nature of her previous episodes of diarrhea, coupled with the absence of rectal bleeding may have led to a low suspicion of her disease, and hence the delayed diagnosis.

Studies show that about 10% of all UC are diagnosed in the elderly, with a mean age of about 66 years, and a male preponderance.[7,8] While some studies show more severe disease and more extensive colitis than in young-onset UC, others do not. [7,8] Fecal calprotectin levels are reported to be higher in elderly patients with UC, possibly reflecting more severe inflammation as seen in our patient who had an extremely high level of >6000 mg/kg. [7]

While the rates of colectomy may be similar, elderly-onset UC has been associated with more medication use (steroids and 5-ASA), higher hospitalization rates, and higher mortality rates (both all-cause and UC-related). [7,8] It is also reported to confer a higher risk of development of colorectal carcinoma.[9] Response to 5-ASA has been shown to be similar in both young and elderly patients.[10]

The availability of endoscopy and histology services was instrumental in her diagnosis. To the best of our knowledge, this is the first reported case of an initial diagnosis of ulcerative colitis in an elderly Nigerian or African.

Conclusion: Ulcerative colitis may rarely present in the elderly. A high level of suspicion is necessary to make the correct diagnosis.

Declaration of patient consent: The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient's relative has given her consent for the investigations and other clinical information to be published. The patient's relative understands that her name and initials will not be published, and due efforts will be made to conceal the identity, but anonymity cannot be guaranteed. Informed consent was obtained from the patient's granddaughter for the publication of this case report and the accompanying

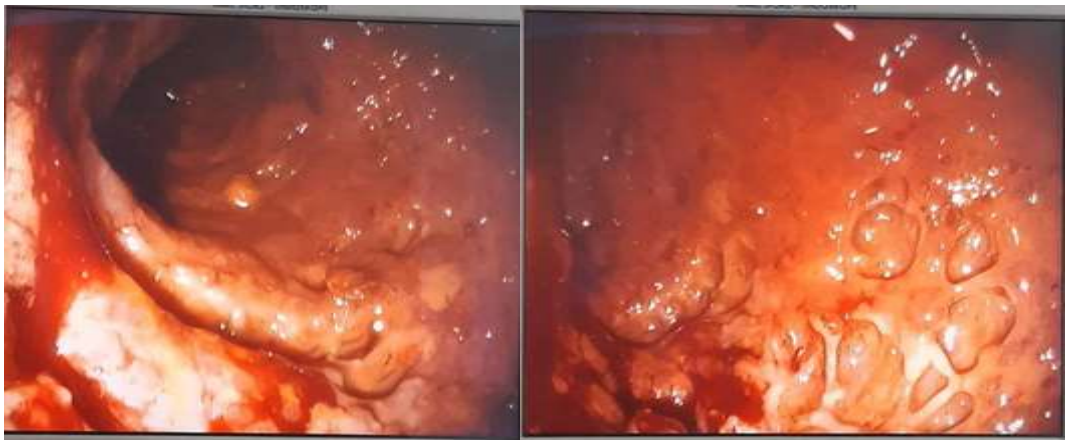

Figure 1 Figure 2

Fig 1 & 2 show endoscopic slides showing hyperaemic mucosa with ulcers, pseudopolyps, and spontaneous bleeding

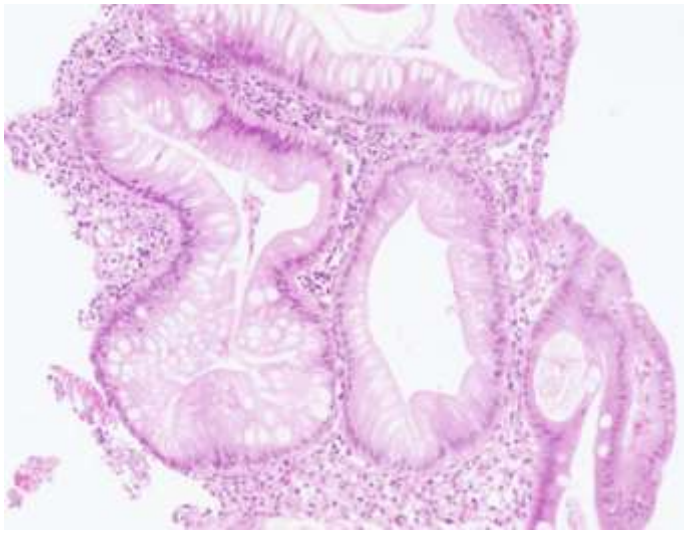

Figure 3 shows focal areas of ulceration with an expansion of the lamina propria and diffuse mononuclear inflammatory infiltrate including lymphocytes, plasma cells, few eosinophils, neutrophil polymorphs, and focal cryptitis. There is submucosal oedema, but no granuloma is seen.

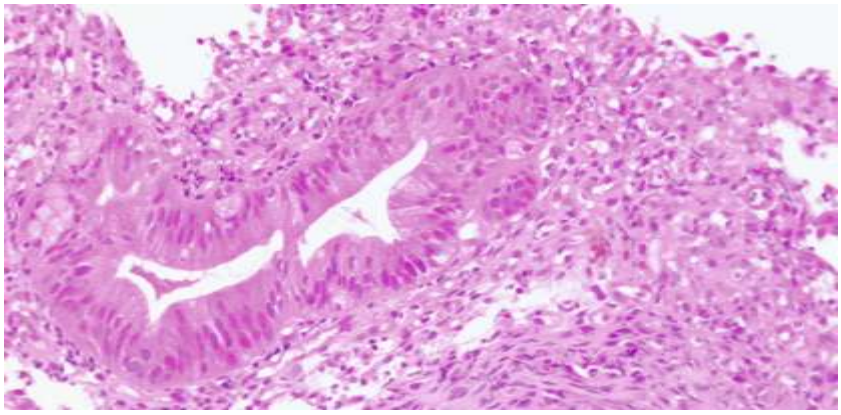

Figure 4: slide showing high-grade dysplasia of the glandular lining epithelium

investigation results. She also read and approved the final manuscript.

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