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COLLAGENOUS COLITIS IN AN ADULT PATIENT WITH CHRONIC DIARRHOEA: CASE REPORT

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SUMMARY

Collagenous colitis is an established cause of chronic watery diarrhoea of unknown aetiopathogenesis, characterised by normal colonic endoscopic findings, and a prominent collagen band in the sub-epithelial layer on colonic mucosal histology. We report a case of a 65-year old male who presented with recurrent episodes of watery diarrhoea of 38 years duration. There was a positive family history of similar diarrhoea in the mother and two siblings. Colonoscopy done was macroscopically unremarkable except for a redundant sigmoid colon. Mucosal biopsy of the rectum and colon showed at histology atrophy of the mucosal lining, infiltration of the lamina propria by plasma cells and lymphocytes, and a thick band of collagenous tissue in the sub-epithelial zone of the lining mucosa. A high index of suspicion is necessary to make the diagnosis in patients with chronic diarrhoea, especially when common causes of chronic diarrhoea like intestinal parasitoses, HIV/AIDS, diabetic autonomic neuropathy, thyrotoxicosis have been excluded. It is suggested that colonoscopic examination with adequate biopsy should be performed in patients with chronic diarrhoea with no aetiologic agent identified.

INTRODUCTION

Collagenous colitis, first reported by Lindstrom in 1976(1) is an established cause of chronic watery diarrhoea of unknown aetiopathogenesis characterised by normal colonic endoscopic findings and a prominent collagen band in the sub-epithelial layer on colonic mucosal histology.

Collagenous colitis appears to be closely related to lymphocytic colitis. Mucosal lymphocytic infiltration is observed in both entities, collectively known as microscopic colitis, but collagen deposition in the sub-epithelial layer only occurs in the former(2). In addition, chronic watery diarrhoea is the sole clinical presentation of these two conditions, which occur in an estimated ten per cent of normal colonoscopic biopsy specimens(3). There is a more pronounced female predisposition and clinical onset a decade earlier on average in collagenous colitis, than in lymphocytic colitis(3). While cases of collagenous colitis from several western nations(1,4-18) have been reported in the literature, no case, to our knowledge has been reported from Nigeria or other parts of Africa. A case report in a Nigerian is here presented with a review of the literature.

CASE REPORT

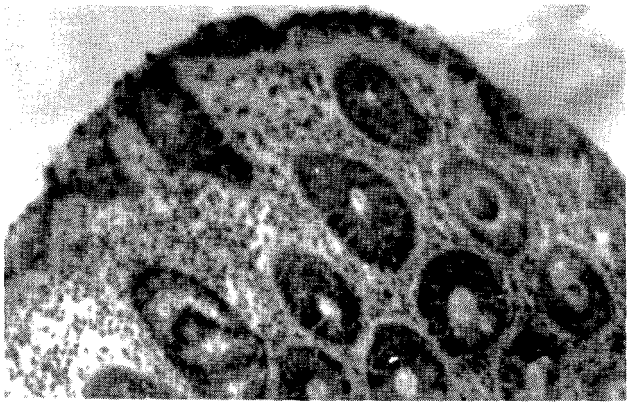
The index case was a 65-year old male textile trader who presented in the medical outpatient department of our hospital with recurrent episodes of watery diarrhoea of 38 years duration. Each episode lasted one to two weeks with a daily stool frequency of two to eight and periodicity of about three months. Beans and beverages worsened the diarrhoea with no known relieving factors. Stools were occasionally brownish in colour, mucoid, non-bloody and not fatty. There was no associated abdominal bloating, fever, constipation, drenching night sweats, skin flush, weight loss or vomiting. There is a positive family history of similar diarrhoea in the mother and two siblings.

There was no history of arthralgia. Diabetes mellitus and thyrotoxicosis were clinically excluded. There was a history of previous treatment with several drugs including enterosediv, thalazole, metronidazole, tetracycline and mist kaolin without permanent remission. The patient was a known hypertensive and he had herniorrhaphy many years back.

Clinical examination was unremarkable except for mucoid stool on digital rectal examination. Laboratory investigations such as full blood count, electrolytes and urea, liver function tests, urinalysis and blood sugar were normal. Stool examination however revealed a few pus cells but no growth on culture. Retroviral screening was negative. A clinical impression of irritable bowel syndrome to exclude inflammatory bowel disease was made. Colorectal carcinoma was deemed unlikely. Colonoscopy done was macroscopically unremarkable except for a redundant sigmoid colon. Mucosal biopsy of the rectum and colon showed at histology atrophy of the mucosal lining, infiltration of the lamina propria by plasma cells and lymphocytes and a thick band of collagenous tissue in the subepithelial zone of the lining mucosa (Figure 1). A histologic diagnosis of collagenous colitis was made.

Figure 1

A thick band of collagenous tissue in the sub-epithelial zone of the lining mucosa



The patient was placed on sulphasalazine 0.5g twice daily with remission of diarrhoea before discharge. He represented about six months later with diarrhoea, having stopped sulphasalazine a few weeks after discharge due to high cost. He was then placed on lomotil with good response and discharged to be followed up in the outpatient clinic. He has since been lost to follow up.

DISCUSSION

Acute diarrhoeal disease, which are commonly infective in origin, are a frequent occurrence in developing nations of the world, including Nigeria. Chronic diarrhoeal diseases are less common and are of diverse aetiology, which may be viral as in HIV/AIDS enteropathy, tuberculous, parasitic, drug-induced or endocrinopathic.

Collagenous colitis as a cause of chronic diarrhoea appears to be rare in Africa and Asia, since a Medline search of indexed articles up until August 1999 failed to reveal any reports of this condition from these regions. In our further support for this impression, our personal experience of surgical biopsies and post-mortem specimens during the past decade has not yielded a prior case of collagenous colitis. However, the actual incidence of collagenous colitis may be relatively higher since biopsies are not usually taken in cases of chronic diarrhoea with normal endoscopic findings(18).

Collagenous colitis is generally recognised to be an infrequent cause of chronic diarrhoea that usually occurs in patients between 23 and 86 years of age(2,4). It is characterised by chronic watery diarrhoea and a collagen band in the sub-epithelial layer that varies between 11.5 and 100 micron in thickness. It has been associated with such conditions as systemic lupus erythematosus (SLE), biliary cirrhosis, CREST syndrome(5), hyposplenism(6), spondyloarthropathy, seronegative arthritis, Raynaud's phenomenon(7) and *Yersina enterolytica*(19). However, none of these associations was found in our patient.

Although the aetiology of collagenous colitis is yet unknown, there is evidence for an inflammatory process, possibly triggered by an unknown intra-luminal agent. The presence of leucocytes in the stool, as was found in our patient and which generally occurs in 55% of cases(8) is in keeping with this suggestion. A recent study demonstrated accumulation of CD4 positive T cells in the lamina propria and abnormal expression of class II MHC molecules on colonic epithelial cells in patients with collagenous colitis and lymphocytic colitis. This suggests that immune mechanisms may have a role to play in the pathogenesis of these conditions(9). Non-steroidal anti-inflammatory drugs (NSAID), especially the slow release type, have been suggested by some workers as possible aetiological factors(10,11). Mucosal damage induced by bacterial cytotoxin has also been suggested as another possible predisposing factor(12). In view of a similar history of chronic diarrhoea in the mother and two siblings of this patient, a genetic predisposition cannot be excluded. Such familial occurrence has been previously described in the literature(13).

The definitive diagnosis of collagenous colitis can only be made by endoscopic colonic mucosal biopsy, which usually shows lymphocyte, plasma cells and occasionally neutrophil infiltrates and a prominent sub-epithelial collagenous band in the mucosa. There are characteristically no macroscopic lesions. Previous studies have also emphasised the diagnostic importance of total colonoscopy with multiple biopsies(14). A high index of suspicion is necessary to make the diagnosis in patients with chronic diarrhoea, especially when common causes of chronic diarrhoea like intestinal parasitoses, HIV/AIDS, diabetic autonomic neuropathy, thyrotoxicosis have been excluded.

A number of therapeutic measures have been suggested for collagenous colitis, but as usual with diseases with poorly understood aetiopathogenesis, none has been very effective. Sulphasalazine, cholestyramine and octreotide have been used with variable results(10,11,15,16). Our patient responded very well to sulphasaline with remission of diarrhoea after a course of the drug. However, the diarrhoea recurred within a few weeks of withdrawal of the drug, suggesting that it has no curative effect on the disease. A few patients have benefited from anti-diarrhoeal treatment and discontinuation of NSAID therapy, as was the case in this patient who also responded to Lomotil. Recently, Lanyi *et al*(20) reported sustained remission in patients treated with controlled ileal release capsules of budesonide. Budesonide is a topically acting steroid with rapid absorption, high receptor affinity and low systemic bioavailability, thus causing almost no side effects.

A case of collagenous colitis refractory to medical therapy was found following sub-total colectomy to have a co-existing colonic carcinoma(17). This underscores the need to carefully exclude underlying malignancy in all patients with clinical and pathologic features suggestive of collagenous colitis.

In conclusion, collagenous colitis, though a rare cause of chronic diarrhoea is not unknown in the tropics. The diagnosis should be considered in the differential diagnosis of chronic diarrhoea, when common causes have been excluded. It is suggested that colonoscopic examination with adequate biopsy should be done in all patients with chronic diarrhoea with no obvious aetiological agent identified.

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