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THE SURGEON AND THE MANAGEMENT OF ULCERATIVE COLITIS: EXPERIENCE FROM THE UNIVERSITY OF BENIN TEACHING HOSPITAL, NIGERIA.

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INTRODUCTION

Ulcerative colitis is a chronic inflammatory bowel disease that primarily involves the colon. The initial lesion is in the rectum in 95% of cases and from here it spreads proximally and may affect the entire colon[1]. In the presence of an incompetent ileocaecal value, it could spread to affect the last 30cm of the ileum as a backwash ileitis. The precise cause is unknown. There is, however, substantial evidence to suggest that environmental genetic and microbial factors (alone or in combination) predispose to and / or induce inflammatory bowel diease[2]. it is currently believed that it may be caused by an interplay between antigens derived from bacterial floral in the gut and T-lymphocytes of the gut associated lymphoid tissue (GALT)[3,4]. Complications of surgical importance include toxic megacolon, perforation, intestinal obstruction, haemorrhage and colonic cancer.

Not much literature has been published from our environment on the surgical aspects of this condition as it is known to be rare in the tropics[1]. Three cases of ulcerative colitis managed in our surgical unit are being presented in order to highlight the surgical angle to this clinical problem. Whereas one of the cases (Case1) is uncomplicated the other two manifested with clinical features of toxic megacolon, intestinal obstruction and haemorrhage. It is hoped that this presentation will stimulate the interest of surgeons practicing in the topics in the surgical management of ulcerative colitis by creating a high index of suspicion. This will manifest in better management of patients as well as more literature output on the topic.

Case I. OM, a 61 year old retired female school teacher presented with a two year history of abdominal pain associated with bloody, mucoid diarrhoea (about 10 motions daily). An initial impression of colorectal carcinoma to rule out amoebic dysentery was made. Retroviral infection was also considered. She however, failed to respond to a course of metronidazole.

Stool examination did not show evidence of ova, cysts nor protozoa. Retroviral screening was negative. Barium enema, however, showed loss of colonic haustration in the descending colon and spiky projections on the mucosa of the sigmoid colon and rectum, Fig. 1. These were in keeping with chronic idiopathic ulcerative colitis. She responded to an initial treatment with prednisolone and was later maintained on sulphasalazine. However, she had a relapse after one year of treatment following the inadvertent stoppage of the sulphasalazine by a general practitioner. There was associated joint pain involving the left shoulder and knee. The recurrent symptoms were controlled initially with prednisolone and was later maintained with sulphasalazine. Presently, symptoms are under control and she is being followed up at the surgical outpatient.

Case II. EO, a 44 years old male lecturer was diagnosed in the United States as having ulcerative colitis 13 years before presentation. He was referred with a 3 day history of abdominal pain, distension and vomiting. There was an episode of intermittent vomiting, chronic diarrhea, weight loss and features of hypoproteinmia five months prior to presentation. Past medical history revealed that he had three previous surgeries for intestinal obstruction during which multiple bowel resections were carried out. An impression of subacute intestinal obstruction secondary to bands and adhesion was made. This was confirmed by pain abdominal x rays.

Management was essentially conservative with intravenous infusion and naso-gastric aspiration. Steroid therapy was commenced by the medical team. There was an initial clinical response. However, on the 7th day of admission, he started bleeding torrentially per rectum and was transfused with four units of fresh, whole blood. Unfortunately he died before he could be rendered fit for any surgical intervention.

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Case III.EB a 70 years old male pensioner presented with clinical and radiological features of subacute intestinal obstruction of two weeks duration. Three years prior to presentation he had frequent stooling and tenesmus. Retrovital screening was negative but barium enema examination then revealed radiological features of ulcerative colitis. Plain abdominal x- rays carried out during the last admission showed features of toxic colonic dilatation, fig2. Conservative management involving intravenous infusion and nasogastric aspiration was instituted. In view of clinical and laboratory evidence of hypoproteinmia, the medical team suggested that he should be commenced on parenteral alimentation. Unfortunately his condition deteriorated and he died before its commencement.

Fig 1. Chronic idiopathic colitis
Fig 2. Toxic colonic dilataion

DISCUSSION

Ulcerative colitis is said to be rare in our environment[1] . Classically it presents with chronic diarrhea often accompanied by tenesmus and passage of blood and mucus in the stool. In the severe state, the patient may stool 30- 40 times per day and several more times during the night[5].

Case I presented in this manner and was initially managed as a case of dysentery but to no avail.

Metronidazole has, however been found to be more effective clinically in crohn's disease (the other variant of inflammatory bowel disease) than in ulcerative colitis. Antibiotics probably reduce luminal bacteria and possibly eliminate certain enteric bacteria that sustain the inflammatory process.

The surgeon is often called in when there are complications. Case II was an embodiment of the latter. He presented with clinical and radiological features of subacute intestinal obstruction and had three previous laparotomies that involved multiple intestinal resections. Bleeding per rectum could be massive and prove terminal as in this patient.

Case III presented with toxic megacolon which is fulminant form of colitis. Muscle or myenteric plexus paralysis is probably the underling cause. In all cases however, it is important to rule out colorectal dysplasia and cancer which remain an ever present risk[7].

A high index of suspicion is necessary in the diagnosis of this condition which though is common in the developed world is rather rare in our environment. Common cases of frequent stooling should be ruled out. This entails stool examination for intestinal parasites (ova, cysts and protozoa) and retroviral screening since HIV AIDS is usually associated with frequent, loose bowel motions.

When these common causes of diarrhea are ruled out, one should think of the rare ulcerative colitis.

Barium enema has proved to be an important diagnostic tool as shown in cases I and III. Diagnostic features include destruction of mucosal pattern, loss of haustration and shortening of the colon. It should not be employed, however, in the acute state of the disease such as toxic megacolon as it may worsen the clinical state. The colonic dilatation in this condition is better visualized on plain abdominal x rays.

Sigmiodoscopy and colonoscopy are important as the biopsy materials obtained help in the histological confirmation of this condition. They also help in differentiating between crohn's disease and ulcerative colitis which though share the same inflammatory basis, however, differ in management regimen.

Other investigations that help in the management of the patient include packed cell volume (PCV) and grouping and crosshatching of blood if necessary.

An electrolytes and urea check will evaluate the degree of fluid and electrolyte loss.Serum protein estimation gives an idea of the patient's nutritional status. Food supplements and even total parenteral nutrition may be required in severe nutritional deficiency states as in Case III.

Treatment is initially conservative by the use of 5 aminosalicylic acid (ASA) derivatives such as sulphasalazine. The secondline of drug treatment particularly for acute flare-ups consists of immunomodulatory agents ranging from corticosteroids to cyclosporine, azathioprine and 6-mercaptopurine. Apart from corticosteroids, however, the results from the use of others have not been impressive[1,8]. Case I has continued to do well on sulphasalazine and prednisolone. Probiotics have been found to have a therapeutic effect in ulcerative colitis[9,10].

Indications for emergency surgery in ulcerative colitis include heamorrhage, free perforation with peritionitis and fulminating disease with toxic megacolon, which has failed to respond to initial conservative management[1]. The latter involves gastrointestinal decompression and replacement of fluid and electrolyte loss as illustrated in case III. Indications for elective surgery include partial intestinal obstruction and persistence of disabling symptoms despite drug therapy and the finding of dysphasia in colonoscopic biopsies.

Case II had three previous laparotomies due to intestinal obstruction prior to presentation. Bowel resection was carried out on each occasion.

Until recently, one stage total protocolectmy with ileostomy was regarded as the standard procedure. However, owing to the ever present threat of carcinoma in the rectal stump, the current treatment involves protocolectomy with ileal pouch anal anastomosis (IPAA).

Because patients with longstanding ulcerative colitis are at an increased risk of developing colorectal cancer, surveillance colonoscopy for dysplasia is advised as a method of reducing cancer related deaths.

CONCLUSION

Our experience in the definitive surgical management of ulcerative colitis is limited. This is because our diagnosed cases are few and far in between. With a high index of suspicion, however, we believe more cases would be detected with the attendant improvement in surgical management.

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