CASE REPORT

DIVERTICULAR DISEASE OF THE COLON PRESENTING WITH RECTAL BLEEDING IN AN ELDERLY AFRICAN: A CASE REPORT

Irurhe N.K.1, Awosanya G.O.G.[1], Olajide T.O.[2]
[1]Department of Radiodiagnosis
[2]Department of surgery
Lagos University Teaching Hospital Lagos Nigeria

ABSTRACT

OBJECTIVE: To re-emphasize the role of radiological evaluation in the diagnosis of diverticular disease.

RESULT: Multiple outpunching were seen in descending and sigmoid colon in double contrast barium enema films

CONCLUSION: The important role of radiological evaluation in the diagnosis of diverticular disease was confirmed using barium enema study.

Keywords: Diverticular disease, herniation, outpouching, barium enema.

Corresponding Author:
IRURHE, NK
Radiodiagnosis department
Lagos University Teaching Hospital
E-mail: nick3irurhe@yahoo.com
08023450029

INTRODUCTION

Diverticular disease is a common disorder in the western world, yet it was not recognized as a pathological entity until the mid-19th century[1]. The disease may involve any part of the gastrointestional tract and typically acquired but may be congenital, such as Meckel iliac diverticulum (rare)[2]. Diverticulae are herniations of the mucosa and sub mucosa or the entire wall thickness through the muscularis mucosa as seen in congenital diverticula. The sigmoid colon is the most affected however, diverticular disease also can involve the descending, ascending, and transverse colon as well as the jejunum, ileum and duodenum.[3]

In the United States, diverticular disease occurs frequently, especially among elderly patients. One third of the general population develops diverticulae by the age of 45 years and two thirds by the age 85years. The disease is considered to be a disease of the western world, and rare among Africans[3,4]. Though it has been increasingly reported in the Africans who lived in urban sites and those who once lived in the western world[5,6]. The disease increases with age and rare in people less than 40years.[6,7] The prevalence rate is 5 per 100,000 Africans while the study done in Ibadan showed prevalence rate in Nigeria as 1.85%[7,8].

This case is being reported because the patient had rectal bleeding and the clinician suspected colorectal carcinoma but diverticular disease was diagnosed after radiological evaluation.

CASE REPORT

A 63-year-old African business executive was referred to the surgical out patient unit in Lagos University Teaching Hospital (LUTH) on account of abdominal pain, flatulence, weight loss, and blood mixed with faeces and sometimes passage of frank blood per rectum, altered bowel habit with constipation alternating with diarrhea for over 9 months before presentation. He had been on different medications including herbs (local concortion) without satisfactory result.

He presented with nausea and vomiting and a sudden bout of bloody stool, he then went to his company's clinic where he was referred to LUTH. Before presentation at LUTH he had two more episodes of bloody stool, he does not smoke but drinks alcohol moderately and eats in restaurants regularly, he is well travelled and eats a lot of snacks.

Clinical examination revealed an elderly, anxious looking man, not pale nor dehydrated, without peripheral lymaphadenopathy. Pulse rate was 78/min, blood pressure was 140/80 mmHg.

There was vague tenderness on abdominal examination, the abdomen moved with respiration and there was no abdominal mass felt. Rectal examination showed normal rectal mucosa and anal orifice. The gloved finger was stained with bloody stool, other systems were essentially normal. A provisional diagnosis of colorectal carcinoma was made. Apart from the PCV which was 28% other blood parameters were within normal limits, however there was occult blood in the stool. The ultrasound examination report was normal. The double contrast barium enema showed multiple rounded out pouching from the walls of the large bowel, mainly in the sigmoid and descending colon (Figs. 1&2). A diagnosis of diverticular disease of the colon was then made. Patient was then managed conservatively and he improved clinically over time.

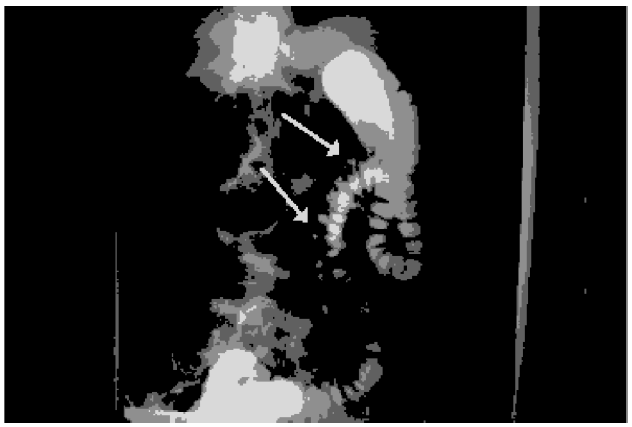

Figure 1: Ba- Enema study - oblique view showing multiple colonic outpunching (white arrows).

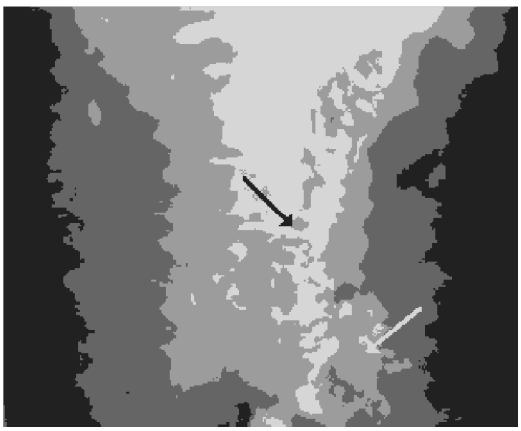

Figure 2: Ba-Enema study (post evacuation) AP view showing multiple outpunching in the sigmoid and descending colon (arrows)

DISCUSSION

Diverticular disease of the colon is common in developed countries, probably due to diets poor in fibre[4],. The disease that was previously believed to be rare among Africans is now an emerging disease entity in many areas of African tropics [5,7&8]. The precise etiology of the disease is unknown however there are some theories, one of them is that high intraluminal pressure and a weak colonic wall at the sites of nutrient vessel penetration into the muscularis may lead to herniation. The condition also may be caused by abnormal colonic motility, defective muscular structure, defects in collagen consistency (i.e. increased cross-linking of collagen), and aging[6,9&10]

Diverticular disease is asymptomatic in most cases though the disease is usually discovered as an incidental finding in most patients[9]. The symptomatic patient commonly presents with abdominal pain, altered bowel habit and rectal bleeding. There is usually history of low fibre diet. In the reported case the patient complained of abdominal pain, rectal bleeding and gloved finger was stained with bloody stool. Studies shows that rectal bleeding is the main presenting feature of diverticular disease of the colon in blacks, bleeding was a major feature in the reported case. Other symptoms may include, nausea, vomiting, constipation, diarrhea, tenesmus, symptoms could also be associated with complications e.g. fever, dysuria and vaginal discharge[2,4&11].

Diagnosis of diverticular disease is entirely radiological with double contract barium enema, diverticula appear as flask like or round outpunching from the bowel walls. Similar appearance was seen in the barium enema films of the reported case. The muscular change in the sigmoid colon, produces the concertina like or serrated appearance of the affected area. Other imaging studies that could be done are computed tomography, colonography, ultrasonography and magnetic resonance imaging.[2] Diverticular disease predominantly affects the sigmoid colon and descending colon in the western world and Africa[2,12].

This study reported that the diverticular disease was predominantly in the sigmoid and descending colon. This is equally supported by other authors also it was discovered that the right side type was more common in younger age groups and Asians in contrast to that of westerners[13,14]

*Complications such an diverticulitis, pericolic abscess, perforation, colovesicular fistula and peritonitis can occur. Patient is usually managed conservatively with diet and drugs as it is with the reported case and if there is complication, surgical intervention may be required.

REFERENCES

1. Jones D.J: ABC of colorectal disease. Diverticular disease. Brit. Med. J. 1992 30; 304(6839): 1435-1437.

2. McCarthy D.W., Bumpers H.L., Hoover E.L: Etiology of diverticular disease with classic illustrations. J Natl Med Assoc. 1996; 88(6): 389-390.

3. Place R.J., Simmang C.L: Diverticular disease. Best Pract Res Clin Gastroenterol. 2002; 16(1): 135-138.

4. Painter N.S: Diverticular disease of the colon. The first of the Western diseases shown to be due to a deficiency of dietary fibre. S Afr Med J. 1982; 61(26): 10116-10120.

5. Ihekwaba F.N: Diverticular disease of the colon in black Africa. J R Coll Surg Edinb. 1992; 37(2): 107-109.

6. Omojola M.F., Mangete E: Diverticula of the colon in three Nigerian siblings. Trop Geogr Med. 1988; 40(1): 54-57.

7. Ogunbiyi O.A: Diverticular disease of the colon in Ibadan, Nigeria. Afr J Med Sci. 1989; 18(4): 241-244.

8. Madiba T.E., Mokoena T: Pattern of diverticular disease among Africans. East Afri Med J. 1994; 71(10): 644-646.

9. Bernades P: (natural history of diverticular disease of the colon) Ann Gastroenterol Hepatol (Paris). 1986; 22(4): 209-211.

10. McCarthy D.W, Bumpers H.L., Hoover E.L: Etiology of diverticular disease with classic usually illustrations. J Natl Med Assoc. 1996; 88(6): 389-390.

11. Mokoena T., Madiba T.E: Haemorrhage - - the main presenting feature of diverticular disease of the colon in blacks. S. Afr Med J. 1994; 84(2): 83-85.

12. Segal l., Solomon A., Hunt J.A: Emergence of diverticular disease in the urban South African black. Gastroenterology. 1977; 72(2): 215-219.

13. Sugihara K., Muto T., Morioka Y., Asano A., Yamamoto T: Diverticular disease of the colon in Japan. A review of 615 cases. Dis Colon Rectum. 1984; 27(8): 531-537.

14. Bova J.G, Hopens T.A, Goldstein H.M: Diverticulitis of the right colon. Dig Dis Sci. 1984; 29(2): 150-156.