



ORIGINAL ARTICLE

LOWER GASTRO-INTESTINAL TRACT BLEEDING IN ILORIN, NIGERIA

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Abstract

Introduction: Lower gastro-intestinal bleeding refers to blood loss of recent onset originating from a site distal to the ligament of Treitz. It may manifest as haematochezia (passage of maroon or bright red blood or blood clots per rectum). Information is scanty on the subject in Nigerians.

Aims and Objectives: To determine the colonoscopic findings in Nigerians with lower gastro-intestinal bleeding in Ilorin.

Methodology: This was a hospital-based cross-sectional study carried out at the Endoscopy suite of Crescent hospital, Ilorin from January 2010 to April, 2013. The endoscopy register was reviewed, and the biodata, indications and colonoscopic findings were recorded on a proforma.

Results: A total of 174 patients had colonoscopy carried out on them. Out of these, seventy eight had lower gastro-intestinal bleeding comprising 52 (66.7%) males and 26(33.3%) females. Their age ranged from 4 to 90 years with a mean of 53.3+/-19.9 years. The colonoscopic findings were haemorrhoids 28(35.9%); diverticulosis 20(25.6%); rectal cancer 13(16.7%); colonic polyps 12(15.4%); angiodysplasia 9(11.5%); proctitis 4(5.1%); rectal polyps 4(5.1%); anal warts 3(3.8%); anal cancer 2(2.6%); colitis 2 (2.6%); colon cancer 1(1.3%); normal findings 4 (5.1%).

Conclusions: Haemorrhoids, diverticulosis, colo-rectal cancer, and polyps in decreasing order are the commonest findings in Nigerians with lower gastro-intestinal bleeding.

Keywords: Rectal bleeding, Haemorrhoids, Colonoscopy, Nigerians.

INTRODUCTION

Lower gastro-intestinal bleeding (LGIB) refers to blood loss of recent onset originating from a site distal to the ligament of Treitz.⁽¹⁾ It may manifest as

haematochezia (passage of maroon or bright red blood or blood clots per rectum).⁽¹⁾

Lower gastro-intestinal bleeding can present as an acute and life-threatening event or as chronic bleeding, which might manifest as iron-deficiency anaemia, faecal occult

blood or intermittent scant haematochezia.⁽²⁾

The causes of LGIB may be grouped into several categories i. anatomic (diverticulosis), ii. Vascular (angiodysplasia, ischaemic, radiation-induced), iii. inflammatory (inflammatory bowel disease, infectious), and iv. neoplastic.⁽³⁾ LGIB accounts for approximately 20-33% of episodes of gastro-intestinal (GI) haemorrhage, with an annual incidence of about 20-27 cases per 100,000 population in Western countries.⁽⁴⁾ However, although LGIB is statistically less common than upper GI bleeding (UGIB), it has been suggested that LGIB is under-reported because a higher percentage of affected patients do not seek medical attention.⁽⁵⁾

Little information is available concerning the epidemiology of LGIB in sub-Saharan Africa.⁽⁶⁾

Despite this paucity of information, the impression is that LGIB is a distinct clinical entity in Africa, not as common as UGIB and with a different spectrum of aetiologies in comparison to that in the West.^(6,7) LGIB has a mortality rate ranging from about 10-20%, with patients of advanced age (>60 yrs) and patients with co-morbid conditions (eg multi-organ system disease, transfusion requirements in excess of 5 units, need for operation, and recent stress, such as surgery, trauma, and sepsis) are at greatest risk.⁽⁸⁾ LGIB is more likely in the elderly because of a higher incidence of diverticulosis and vascular disease in this group. The incidence of LGIB is reported to be higher in men than in women.⁽⁸⁾

Colonoscopy is the diagnostic and therapeutic procedure of choice for acute and chronic bleeding. Angiography is used if colonoscopy fails or cannot be performed. The use of radioisotope scans is reserved for cases of unexplained intermittent bleeding, when other methods have failed to detect the source.⁽²⁾ Embolization or modern endoscopy techniques, such as injection therapy, thermo-coagulation and mechanical devices, effectively promote haemostasis. Surgery is the final approach for severe bleeding.⁽²⁾

Alatise et al⁽⁹⁾ in Ile-ife, Nigeria found the commonest causes of LGIB to be haemorrhoids, diverticulosis and polyps in decreasing order. Zia et al⁽¹⁰⁾ found ulcerative colitis, colorectal cancer, and non-specific colitis as the commonest causes of LGIB amongst Pakistanis. Studies from the West by Gennaro and Rosemond,⁽¹¹⁾ Baum et al,⁽¹²⁾ Gayer et al,⁽¹³⁾ have identified diverticulosis, internal haemorrhoids, and angiodysplasia as the commonest causes of LGIB among Caucasians.

There is a paucity of data on the use of colonoscopy to investigate LGIB in Nigeria. We therefore determine the spectrum of colonoscopic findings in Nigerians with LGIB.

MATERIAL AND METHODS

The setting of the study was Crescent Hospital, Ilorin. It is a private hospital that runs a specialist gastroenterology clinic and GI endoscopic services. It receives referrals for gastroenterology consultations and lower GI endoscopy mainly from the University of Ilorin Teaching Hospital (UITH), Ilorin, other government-owned primary and secondary health facilities, and other private hospitals in Ilorin and its environs. This is because this procedure is not available elsewhere in Ilorin. This was a hospital based cross-sectional study carried out at the Endoscopy suite of Crescent hospital, Ilorin from Jan 2010 to April, 2013. The endoscopy register was reviewed, and the biodata, and the indications and colonoscopic findings were noted, and recorded on a proforma. A written informed consent was obtained from all participants.

All consenting patients who required colonoscopy as part of their management were recruited. All colonoscopies were performed with a Pentax video colonoscope with a light source EPM 3300. The patients usually had a 3-day bowel preparation through the use of laxatives comprising Bisacodyl (Dulcolax), Magnesium sulphate (Epsom) salt, and lactulose syrup. They were also placed on liquid diet during the period. The patients had intravenous lines, and sedation and analgesia was carried with 10 mg of diazepam and 100mg of tramadol respectively. A digital rectal examination was done, and thereafter the colonoscopy was carried out according to standard protocol. The study protocol was approved by the Ethics and Research committee of UITH, Ilorin.

RESULTS

A total of 174 patients had colonoscopy carried out on them. Out of these, seventy eight had LGIB comprising 52 (66.7%) males and 26(33.3%) females. Their age ranged from 4 to 90 years with a mean of 53.3+/-19.9 years. See (Fig. 1). The most frequent age group with rectal bleeding were patients in their 6th decade (ie 51-60years) comprising 21.1% males, and 30.8% females. See (Fig. 2).

The colonoscopic findings were haemorrhoids 28(35.9%); diverticulosis 20(25.6%); rectal cancer 13(16.7%); colonic polyps 12(15.4%); angiodysplasia 9(11.5%); proctitis 4(5.1%); rectal polyp 4(5.1%); anal warts 3(3.8%); anal cancer 2(2.6%); colitis 2 (2.6%); colon cancer 1(1.3%); normal findings 4 (5.1%). See (Fig. 3).

The diagnostic yield was 94.9%.

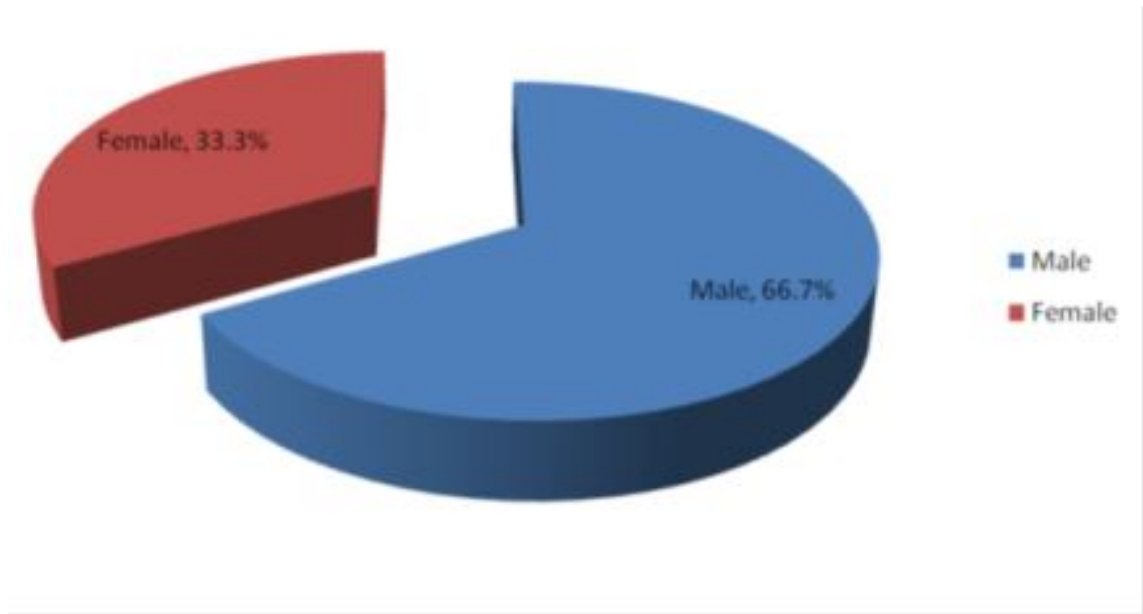


Fig 1. Gender distribution.

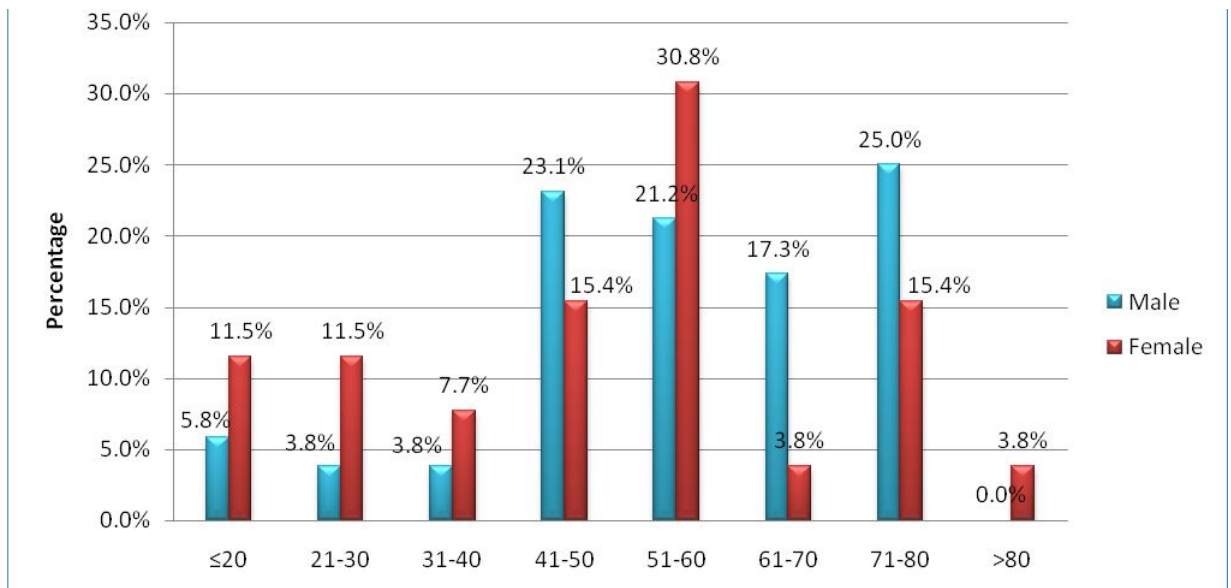


Fig 2. Age and gender distribution of patients with rectal bleeding.

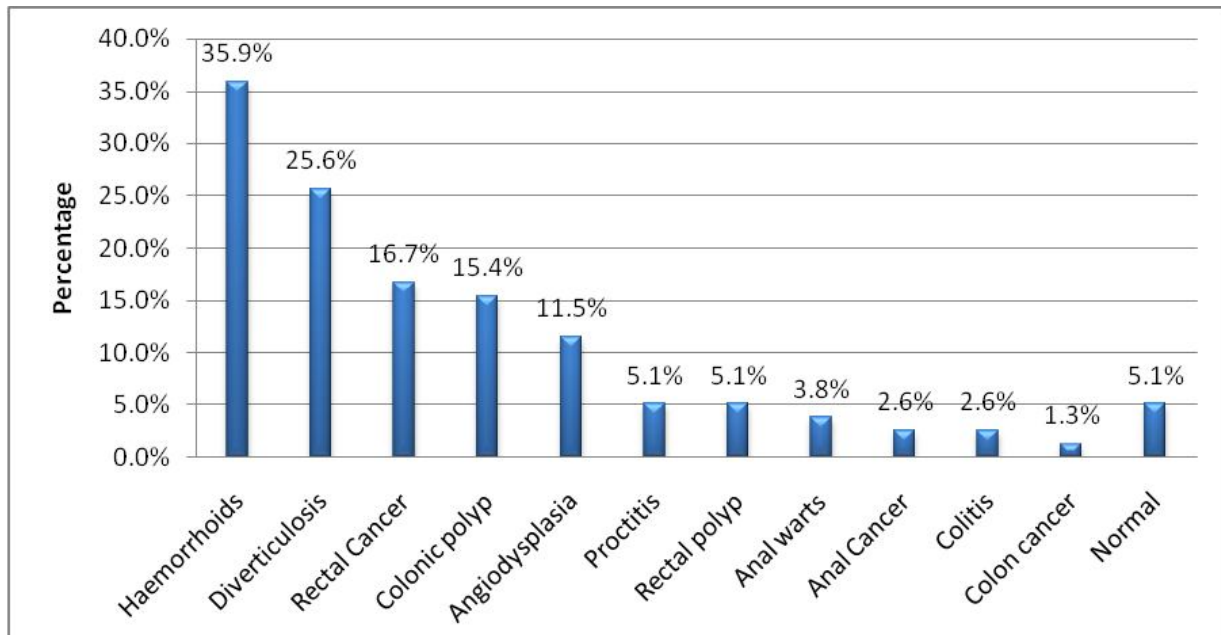


Fig 3. Coloscopic findings in patients with rectal bleeding.

DISCUSSION

The main aim of this study was to determine the spectrum of colonoscopic findings in patients with LGIB. Our study has shown a high diagnostic yield of 94.9%. This figure is much higher than the 79.0% diagnostic yield found by Ismaila and Misauno in Jos, Nigeria.⁽¹⁴⁾ It is also much higher than those in the studies in the West African sub-region carried out by Mbengue et al⁽¹⁵⁾ and Dakubo et al⁽¹⁶⁾ in Senegal, and Ghana respectively.

However, the high diagnostic yield in our study contrasts markedly with the 48.0% obtained by Sahu et al⁽¹⁷⁾ amongst their Indian patients, and the 27.2% found by Siddique et al.⁽¹⁸⁾ Furthermore, it is much higher than the 21.0% diagnostic yield obtained by Al-shamali et al⁽¹⁹⁾ amongst the Saudis. The differences in the diagnostic yield may be due to varying sample sizes in the studies, the differences in the spectrum of colonic diseases seen in the different regions of the world, and the different selection criteria and indications for colonoscopy. Studies have shown that the highest diagnostic yield is found in patients having LGIB, mass lesion, and polyps as demonstrated by Morrini et al,⁽²⁰⁾ Kassa,⁽²¹⁾ Lee et al,⁽²²⁾ and Rex.⁽²³⁾ The availability, and the cost of colonoscopy may also be a factor. The more expensive the cost of the procedure, the more stringent the selection criteria.

From our study, the commonest causes of LGIB in decreasing order were haemorrhoids, diverticulosis, colo-rectal cancer, and colonic polyps. There is a paucity

of local data on the use of colonoscopy to investigate LGIB with which to compare. Our findings are similar to those of Alatise et al⁽⁹⁾ in Ile-ife, Nigeria who found the commonest causes of LGIB to be haemorrhoids, diverticulosis and polyps in decreasing order. Furthermore, our findings are similar to those of Dakubo et al⁽¹⁶⁾ who found the commonest causes of LGIB in decreasing order to be haemorrhoids, colo-rectal cancer, non-specific colitis, diverticulosis, and polyps among their Ghanaian patients. The findings from our study are also similar to those from the West among Caucasians. Studies by Gennaro and Rosemond,⁽¹¹⁾ Baum et al,⁽¹²⁾ and Gayer et al,⁽¹³⁾ have identified diverticulosis, internal haemorrhoids, and angiodysplasia as the commonest causes of LGIB among Caucasians. Our findings contrast with those of Zia et al⁽¹⁰⁾ among Pakistanis, and Vernava et al⁽²⁴⁾ who found inflammatory bowel disease (IBD) to be a prominent cause of LGIB in their studies. The differences may be because of the rarity of IBD in black Africans. It may also be because racial, regional, environmental, and dietary factors influence the spectrum, pattern, and frequency of colonic diseases among various population groups.

The main limitation of our study is the small sample size, which may be partly due to the relatively high cost of colonoscopy. It is recommended that larger and more multi-centred studies are carried out to corroborate the findings of our study.

In conclusion, haemorrhoids, diverticulosis, colo-rectal

cancer, and polyps in decreasing order are the commonest colonoscopic findings in Nigerians with LGIB in Ilorin.

Conflict of interest: None

Source of funding: None

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