

Clinical Profile of Patients Presenting with Lower Gastrointestinal Bleed in a Tertiary Care Hospital from South India

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Abstract: **Background:** Lower gastrointestinal bleeding (LGIB) is a common clinical condition. The present study was undertaken to determine the etiological profile, among patients with LGIB. **Methodology:** We included all the patients above 18 years who presented with LGIB. Patients presenting with severe cardiopulmonary instability secondary to LGIB were excluded, and those unwilling to consent for colonoscopy were excluded from the study. **Result:** Higher incidence of GI bleeding was in age group of 36-60 years. Hematochezia was the commonest clinical feature followed by constipation(56%) and loss of weight(50%). Among etiological factors ulcerative colitis (59.5%) followed by piles (25.2%) and colon carcinoma (5.05%) were the commonest findings. Bleeding from the lower gastrointestinal tract. The remaining factors were had been less patients with LGIB. **Conclusion:** The percentage of LGIB patients with ulcerative colitis was 59.5%, followed by piles 25.2% and colon cancer 5.05%. There is a wide geographic variation regarding the etiologies of LGIB. Lower GI Scopy(colonoscopy) is a very useful in evaluating the cause of LGIB.

Keywords: Lower Gastrointestinal Bleeding, Etiology, Ulcerative colitis, carcinoma of colon, piles

1. Introduction

LGIB is bleeding that originates from a source distal to the ligament of Treitz.¹ LGIB accounts for approximately 20-33% of episodes of GI hemorrhage, with an annual incidence of 20-27 cases/1,00,000 population in western countries.² However the data from the Indian literature is limited on the incidence of LGIB. LGIB represents a significant cause of morbidity and mortality, the rate of hospitalization increases with age.

Lower GI bleeding can be subdivided into two categories: Clinically overt GI bleeding (melena, hematochezia) or occult bleeding identified by an unexplained iron deficiency and/or positive fecal occult blood test.³ The etiology and the epidemiology of the LGIB vary according to the environmental conditions depending upon the lifestyle; dietary habits, the prevalence of smoking, history of drug intake and age.³

Most of the data from the west suggests that colonic diverticula are the most frequent source of LGIB followed by angiodysplasias (angiectasias), colitis (ischemic, infectious, chronic inflammatory bowel disease [IBD]), neoplasms, small bowel bleeding and postpolypectomy bleeding.

However, in the India, the etiology differs significantly.^{4,5,6} Most cases of acute colonic bleeding will stop spontaneously, thereby allowing elective evaluation. However, for patients with severe hematochezia, urgent diagnosis and intervention are required to control the bleeding.⁷

The overall mortality rate from colonic bleeding is 2.4–3.9%. Independent predictors of in hospital mortality are age over 70 years, intestinal ischemia, and two or more comorbidities.^{8,9} However, the data regarding etiology of LGIB remains unexplored as is scarce in the Indian subcontinent and there has been limited number of reports of etiological profile of LGIB from Indian population till date. Data are very scanty as regards to the etiological profile of LGIB from south India, Hence the present study was conducted to determine the etiological profile of LGIB in our center.

2. Methodology

2.1 Study Design

The study was Cross sectional prospective study. This study enrolled 100 patients over a period of One year six months i.e Jan 2018 to June 2019 presenting with LGIB to the Dept of Gastro-enterology, KLES Dr. PrabhakarKore Hospital and medical research center, Belagavi. Inclusion criteria of the study was, the patient diagnosed with LGIB, aged above 18 years. Exclusion criteria; patient diagnosed with severe cardiopulmonary instability secondary to LGIB, and those unwilling to consent for colonoscopy were excluded from the study. The study was approved by the institutional ethical committee.

2.2 Data Collection

Patients were interviewed and demographic data, history of present illness, other comorbid conditions, personal history and diet pattern were obtained. A comprehensive history was taken for all patients and the data was recorded in a preformed proforma after a written and informed consent

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was obtained. All the patients were subjected to the lower GI endoscopy (EUS, OLYMPUS USA). All patients underwent colon preparation the night before and were posted for the next day.

2.3 Statistical analysis

Data analysis was done using Microsoft Excel. Continuous data represented in the form of mean ± SD and the categorical variable are represented by the frequency table.

3. Results

The demographic data of 100 patients of Lower GI bleeding was described in the Table-1. The maximum number of patients were in age group of 36-60 years followed by “18-35” and >61. In the study male patients were 59 (59%) and female patients were 41 (41%). The demographic data is represented in Table 1

Table 1: Demographic characteristics of patients

Factor	Sub-category	n (%)
Age category	18-35	36(36%)
	36-60	50(50%)
	>61	14(14%)
Gender	Female	41 (41%)
	Male	59 (59%)

Chief Complaints	N(%)
Nausea	1 (1%)
passage of mucus in stools	22 (22%)
Tenesmus	28 (28%)
Abdominal pain	31 (31%)
Loss of appetite	43 (43%)
Blood mixed with stool	47 (47%)
Loss of weight	50 (50%)
Constipation	56 (56%)
Haematochezia	84(84%)

Table 2: Distrubtion according to past history

Physical Examination	n (%)
Left supraclavicular node	2 (2%)
Generalized lymphadenopathy	4 (4%)
Pallor	60 (60%)

History	Number of Patients	
H/O malignancy	2	
Tobacco chewing	4	
DM/HTN	DM	7 (7%)
	HTN	4 (4%)
	HTN/DM	3 (3%)
Alcohol	12 (12%)	
Smoking	16 (16%)	

Table2: Describes about the patients’ past history,16% of patients had habit of smoking and 12% of patients were alcoholic.

Table 3: Distribution of subjects by LGI findings

	Female	Male	Total
Colonic diverticuli	1 (2.44%)	0	1 (1.01%)
Radiation proctitis	1 (2.44%)	0	1 (1.01%)
Ischemic colitis	1 (2.44%)	0	1 (1.01%)
Nonspecific proctitis	0	1 (1.72%)	1 (1.01%)

Solitary rectal ulcer	1 (2.44%)	2 (3.45%)	3 (3.03%)
Polyp	1 (2.44%)	2 (3.45%)	3 (3.03%)
Carcinoma of colon	1 (2.44%)	4 (6.9%)	5 (5.05%)
Piles	11 (26.83%)	15 (24.14%)	26 (26%)
Ulcerative colitis	24 (58.54%)	35 (60.34%)	59 (59.6%)

We observed that, Ulcerative Colitis was the most common findings of LGI followed by Piles, Carcinoma of colon. Whereas Colonic diverticuli, Radiation proctitis, Ischemic colitis, Nonspecific proctitis, Solitary rectal ulcer and Polyp were other causes for LGIB. (Table- 3)

4. Discussion

In the present study LGIB was more prevalent among males(59%) as compared females(41%). Most of the studies have shown that, LGIB affects men, more commonly than women. Same was true in this study. In a study conducted by Shrestha UK et al.¹⁰ who reported male preponderance with 62.2% of the males and 37.8% of the females in a sample size of 415 patients. In a study by Dar IA et al.¹¹LGIB was more commonly seen in men as compared to women (59% vs. 41%) which was also consistent with the findings of this study. In the present study 50% of LGIB patients were in age group of 36-60 years. In the Ahmed et, al,¹² study in the aggregate of age group of 30-60 years the percentage of LGIB patients were 55%. In another study Dar et, al,¹¹ found only 16% of patients in the age group of 31-60 years, which is lower than our observation for age group.

The etiology and the epidemiology of LGIB varies according to the environmental conditions depending upon the lifestyle. In this study, the commonest clinical symptom was hematochezia (Bleeding per rectum) (84%) followed by constipation (56%), loss of weight (50%) and blood mixed with stools (47%). In a study conducted by Dar IA et al¹¹ from Jammu and Kashmir reported that most common mode of presentation of LGIB as hematochezia seen in 63.3% patients followed by bloody diarrhea (17%), anorectal bleed (12.33%), and malena (7%). However, there were no cases with melena in our study. Badiger et, al,¹³ study found that Heamatochezia (71%) ,passage of mucus in stool (71%), Tenesmus (67%), Abdominal pain (71%) and constipation (67%) were predominant complaints, compared to our study where Heamatochezia (84%) was the commonest presentation followed by constipation (56%), loss of weight (50%) and blood mixed with stools (47%).

In the present study among total subjects, 16% subjects were smokers and 12% subjects were alcoholic. In a study by Dar, et al,¹¹observed that LGIB patients with Hypertension were (5.7%), Diabetes mellitus (1%) and Hypertension with Diabetes (8.3%), while in our study Diabetic patients were (7%), Hypertension (4%) and Hypertension with Diabetes (3%). Only 2 subjects had a history of malignancy. On examination, the most common clinical sign noted was pallor which was observed among 60% of thepatients followed by Generalized lymphadenopathy (4%) and left supraclavicular node (2%).

In a review by Vernava and colleagues,¹⁴ patients with LGIB made up only 0.7% of all hospital admissions (17,941 patients); among the patients who underwent a diagnostic

workup (4410 [24%]), the most common causes of bleeding were diverticular disease (60%), IBD (13%), and anorectal diseases (11%). In another study by Hreinsson et al,¹⁵ significant LGI findings, were Diverticulosis (23%) followed by Ischemic colitis (16%) and Inflammatory Bowel Disease (IBD) (11%). However in the present study the most common cause of LGIB was Ulcerative colitis(59%) followed by Piles(26%) and carcinoma colon(5%) were important colonoscopy findings these might be because as ours is a multispecialty hospital most of the LGIB cases which presented to surgical Department local causes of bleeding like piles were ruled out there and referred to our department. In a study done by Goenka et al,¹⁶ in India which showed a similar observation as our study with ulcerative colitis (19.3%) being the most common followed by polyps (10.2%) and carcinoma colon (7.2%). other less common findings in our study were polyps(3%), solitary rectal ulcer syndrome(3%), radiation proctitis(1), colonic diverticuli (1) and ischemic colitis (1).

5. Conclusion

The present study was carried out in one of the busiest tertiary care health institutes of South India. The most common cause of colorectal bleeding in our patients was ulcerative colitis, while in western countries diverticulosis is the commonest cause, ulcerative colitis is most common in some Eastern countries. However, if we take account of patients' etiological factors for LGIB, ulcerative colitis, carcinoma of colon and piles are significant. Further studies with larger sample involving patients from other centers may provide better insights for etiological profile in patients presenting with LGIB.

Limitations: Need a larger sample and longer duration of study to determine the etiological profile of LGIB patients.

6. Conflict of interest

There are no conflict of interest.

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