Original Article

# Evaluation of Lower Gastro-Intestinal Bleeding by Sigmoidoscopy at a Tertiary Care Centre: A Retrospective Observational Study.

Syed Quibtiya, Abdul Ahad Wani , Sharik Mehraj

**Abstract**

**Background**

Lower gastrointestinal bleeding (LGIB) is a significant clinical concern accounting for approximately 20% of acute gastrointestinal bleeding cases.

**Aim**

This study aimed to evaluate the etiological profile of LGIB through sigmoidoscopic examination at a tertiary care center in Srinagar, Jammu and Kashmir over a period of one year (August 2023 to July 2024).

**Material and Methods**

A total of 250 patients aged 18 years and above presenting with LGIB were included.

**Results**

The mean age of participants was 35.8 years with a predominance of elderly patients (66% over 60 years). The most common clinical presentation was hematochezia (50.4%) followed by constipation with lower abdominal pain (23.6%) and anemia (20%). Sigmoidoscopy revealed hemorrhoids as the leading cause of LGIB (24%) followed by proctitis (18%), proctosigmoiditis (12.8%), anal fissures (11.6%) and polyps (5.6%). Notably 28% of patient had unremarkable study necessitating further evaluation via colonoscopy.

**Conclusion**

The findings highlight the geographical variation in LGIB aetiology, with haemorrhoids being the most prevalent cause in this Indian cohort. Understanding these variations is crucial for improving diagnosis and management strategies In gastroenterology.

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## Introduction

The term “lower gastrointestinal bleeding” (LGIB) describes the blood loss that originates from a location distal to the Treitz ligament[1]. The most common presentation is hematochezia which is the passage of bright red or maroon blood or blood clots per rectum and a drop in haematocrit level but without orthostasis. Of all cases of acute gastrointestinal bleeding lower GI haemorrhage makes nearly 20%[2].With an annual hospitalization rate of roughly 36 per 100,000 people half of those cases are related to upper gastrointestinal haemorrhage. The older population has an increasingly higher hospitalisation rate[3].Colonic bleeding related deaths range from 2.4% to 3.9% overall[3]. Intestinal ischaemia, age > 70 years and two or more comorbidities are independent predictors of in hospital death[4].

The factors that affect LGIB aetiology and epidemiology include lifestyle, dietary patterns, smoking prevalence, age and multiple Colonic

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**Keywords**

Lower Gastrointestinal Bleeding, Sigmoidoscopy, Haematochezia

diverticula, angiodysplasias, colitis (ischaemic, infectious, chronic inflammatory bowel disease [IBD]), neoplasms, small intestinal bleeding and post polypectomy bleeding appear to be the most common causes of LGIB according to the majority of the data from the west[5].The aetiology is very different in the Indian scenario as 30% are due to nonspecific ulcers and the remaining cases are due to enteric ulcers (15%), bacterial ulcers 6%, neoplasms 6%, amoebic ulcers 6%, angiodysplasia 6% and other conditions[6].The most reliable and effective diagnostic test is a colonoscopy.

The etiological profile of lower GI bleeding via sigmoidoscopy is reviewed in this retrospective observational study. The role of sigmoidoscopy in this context will be emphasised.

## Materials and Methods

This cross-sectional study was conducted from August 2023 to July 2024 that is over a span of one year in the Department of General medicine and surgery in Sher i Kashmir Institute of Medical Sciences, Medical College and Hospital Bemina Srinagar Jammu and Kashmir India.

**Inclusion criteria:**

All the patients above 18 years of age with first presentation of Lower GI bleeding to the outpatient and emergency wing of departments of General medicine and Surgery respectively were included in the study.

**Exclusion criteria:**

Patients below 18 years and those who did not give consent for the procedure were excluded from the study.

## Results

A total of 250 patients who met inclusion criteria were included in the study. Age of patients ranged from 18 to 85 years with mean age of 35.8 years. LGIB was seen to affect individuals of all ages with elderly (>60 years) age group being mostly affected comprising around 66% (165/250) whereas young adults (18–60 years) comprised 34% (85/250) of the studied population. Approximately 54.8% (137/250) were males and females comprised 45.2% (113/250) of the study population.

The most common clinical presentation of LGIB in our patients was per rectal bleed (hematochezia/blood mixed with stool) (50.4%, 126/250) followed by constipation with lower abdominal pain (23.6%, 59/250) and signs and symptoms suggestive of anemia (20%, 50/250) (Table 1). Malena was present in 6% (15/250) of the total study population. Approximately 19.2% (48/250) of the study population had comorbidities.

**Table 1: Clinical Presentation of Patients**

| Clinical Presentation | % (n) |
|---|---|
| Per rectal bleed | (126/250) 50.4% |
| Constipation with abdominal pain | (59/250) 23.6% |
| Anemia | (50/250) 20% |
| Melena | (15/250) 6% |

**Table 2: Etiology of lower gastrointestinal bleeding (Sigmoidoscopy):**

| Finding | %(n) |
|---|---|
| Haemorrhoids | (60/250) 24% |
| Proctitis | (45/250) 18% |
| Proctosigmoiditis | (32/250) 12.8% |
| Anal fissure | (29/250) 11.6% |
| Polyps | (14/250) 5.6% |
| Normal study | (70/250) 28% |

Sigmoidoscopy showed that the most common etiology of Lower GI bleeding in our setting was Hemorrhoids 24% (60/250) followed by Proctitis 18% (45/250), Proctosigmoiditis 12.8%(32/250), anal fissure 1.6% (29/250) and Polyps (benign or malignant ) 5.6% (14/250). Rest of the participants had unremarkable study 28% (70/250) (table 2). Most of the patients with proctitis and proctocolitis were referred to the higher centre for evaluation by colonocopy

## Discussion

Lower gastrointestinal bleeding (LGIB) is a common clinical disease that causes severe morbidity and mortality[7-11].The severity ranges from minor per rectal bleeding to life-threatening major haemorrhage. In United States the hospitalisation rate for LGIB is 20-30/100,000 per year[12].Fernández et al., in their study found that haemorrhoids were the most common cause of rectal bleeding in persons under the age of 50[13].Most studies have found that LGIB affects men more than women. The same is evident from this study. In a study conducted by Shrestha UK et al males 62% outnumbered females 37.8% in a sample size of 415 patients[9].In a research by Dar et al., LGIB was more common in men than in women (59% versus 41%)[2].In this study, the most prevalent clinical complaint was bleeding per rectum followed by constipation with lower abdominal pain and routine screening done in patients with signs and symptoms suggestive of anemia. The cause of lower GI bleeding varies greatly by geography. In Western studies colon polyps, cancer and inflammatory bowel disease are the top three causes. From the findings of our study haemorrhoids were the

leading cause of lower GI bleeding (24%) followed by Proctitis 18%, Proctosigmoiditis 12.8%, Anal fissure 11.6% and Polyps (benign or malignant) 5.6%.

## Conclusion

LGIB is a common and concerning issue in the field of gastroenterology. This study was done to offer some insight on this issue in our setting. Lower GI bleeding is more common in men usually occurring in their third to fourth decade of life and is most commonly associated with hematochezia. The main causes of Lower GI bleeding were haemorrhoids, proctitis, proctocolitis and polyps. Studying the changes in the etiological profile across different geographical regions could help us gain a better knowledge of the related risk factors and pathogenesis as well as improve patient outcomes.

**Conflict of interest**: Nil

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