

Colonoscopic Findings in Patients with Lower Gastro Intestinal Hemorrhage

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Abstract:

Background: Lower gastrointestinal hemorrhage (LGIH) is a significant clinical condition requiring accurate diagnosis for effective management. Colonoscopy plays a critical role in identifying underlying causes and guiding treatment strategies. This study evaluates colonoscopic findings in patients presenting with LGIH.

Materials and Methods: A cross-sectional study was conducted on 98 patients with LGIH. Patients underwent detailed clinical evaluation and colonoscopic examination. Data on demographic parameters, dietary habits, substance abuse, and associated clinical symptoms such as altered sleep and bowel habits were collected. Statistical analysis was performed to assess the distribution of findings.

Results: The study included 53 males (54.08%) and 45 females (45.92%). The majority of participants were aged between 41-50 years (25.51%). Dietary habits showed a predominance of mixed diets (92.86%). Substance abuse, primarily alcohol (45.92%), was prevalent in nearly half of the patients. Altered sleep was reported in 85 patients (86.7%), and altered bowel habits were observed in all patients (100%). Colonoscopic findings revealed hemorrhoids in 26.54%, rectal carcinoma in 23.47%, colorectal cancer in 20.41%, and colon cancer in 8.17%. Other findings included fissures (7.15%), polyps (2.05%), and inflammatory bowel disease (4.09%). Notably, 7.15% of patients had normal colonoscopy results.

Conclusion: Colonoscopy is an essential diagnostic tool for identifying the etiology of LGIH. Hemorrhoids and malignancies were the most common findings, underscoring the importance of timely evaluation in patients with LGIH symptoms to ensure appropriate management.

Keywords: Lower Gastrointestinal Hemorrhage, Colonoscopy, And Rectal Carcinoma, Colorectal Cancer, Hemorrhoids, Altered Bowel Habits.

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Introduction

Lower gastrointestinal hemorrhage (LGIH) is a common clinical condition that poses diagnostic and therapeutic challenges in gastroenterology. It is characterized by bleeding originating distal to the ligament of Treitz and often presents as hematochezia or melena [1]. Colonoscopy remains the gold standard diagnostic tool for evaluating the etiology of LGIH, offering the advantage of both visualization and the ability to perform therapeutic interventions during the same procedure [2]. The causes of LGIH vary widely and include benign conditions such as hemorrhoids, fissures, and inflammatory bowel diseases (IBD), as well as more severe pathologies like colorectal and rectal carcinomas [3]. Accurate identification of these conditions is critical for timely and effective management. The prevalence of malignancies in

patients with LGIH is notably significant, underscoring the importance of routine screening, especially in high-risk populations [4]. Several risk factors, including age, dietary habits, substance abuse, and comorbid conditions, contribute to the incidence and severity of LGIH. Altered sleep patterns and bowel habits have also been associated with gastrointestinal disorders, highlighting the multifactorial nature of this condition [5]. Despite advancements in diagnostic modalities, gaps remain in understanding the distribution and frequency of various etiologies of LGIH, particularly in different demographic groups. This study aims to analyze colonoscopic findings in patients presenting with LGIH, focusing on the prevalence of underlying conditions, their

demographic distribution, and associated risk factors.

Materials and Methods

This cross-sectional study was conducted to evaluate the colonoscopic findings in patients presenting with lower gastrointestinal hemorrhage (LGIH). The study included 98 patients who were referred for colonoscopy at a tertiary care center. The inclusion criteria consisted of adult patients presenting with LGIH characterized by hematochezia or melena. Patients with incomplete clinical records or those who refused colonoscopy were excluded from the study.

Demographic and clinical data, including age, gender, dietary habits, substance abuse, sleep patterns, and bowel habits, were collected through structured interviews and medical records. Patients were categorized into different age groups to assess the distribution of LGIH etiologies. The dietary habits were classified as mixed or vegetarian, and

the presence of substance abuse (alcohol or smoking) was noted. Additionally, altered sleep patterns and bowel habits were recorded to evaluate associated clinical features.

All patients underwent a standardized colonoscopic examination performed by experienced gastroenterologists. The colonoscopic findings were categorized into normal and pathological conditions, including hemorrhoids, fissures, polyps, colorectal cancer, rectal carcinoma, colon cancer, inflammatory bowel disease (IBD), and carcinoma of the anal canal. For each pathological finding, the frequency and percentage were documented.

Data were analyzed to identify the prevalence of various conditions and their distribution across different demographic groups. The study adhered to ethical principles, and informed consent was obtained from all participants prior to their inclusion in the study.

Results

Table 1: Age Group Distribution

Age Group (Years)	Frequency	Percent
≤ 20	3	3.06
21-30	15	15.31
31-40	17	17.35
41-50	25	25.51
51-60	20	20.41
61-70	13	13.27
71-80	5	5.1

Table 2: Gender Distribution

Gender	Frequency	Percent
Female	45	45.92
Male	53	54.08

Table 3: Dietary Factor Distribution

Dietary Factor	Frequency	Percent
Mixed	91	92.86
Veg	7	7.14

Table 4: Substance Abuse Distribution

Substance Abuse	Frequency	Percent
NA	47	47.96
Alcohol	45	45.92
Smoking	6	6.12

Table 5: Altered Sleep Distribution

Altered Sleep	Frequency	Percent
YES	85	86.7
NO	13	13.3

Table 6: Altered Bowel Distribution

Altered Bowel	Frequency	Percent
Yes	98	100.0
No	0	0.0

Table 7: Colonoscopy Findings

Colonoscopy Findings	Frequency	Percent
Colorectal cancer	20	20.41
Rectal Carcinoma	23	23.47
IBD	4	4.09
Colon Cancer	8	8.17
Polyp	2	2.05
Ca Anal Canal	1	1.03

The study evaluated colonoscopic findings in 98 patients presenting with lower gastrointestinal hemorrhage (LGIH). The demographic and clinical parameters, as well as colonoscopic findings, are summarized below.

Age Group Distribution

The majority of patients were in the age group of 41-50 years (25.51%), followed by those aged 51-60 years (20.41%) and 31-40 years (17.35%). Patients aged ≤ 20 years represented the smallest proportion (3.06%) (Table 1).

Gender Distribution

Out of the total 98 patients, 53 were male (54.08%) and 45 were female (45.92%), indicating a slight male predominance (Table 2).

Dietary Factors

The majority of patients (92.86%) reported a mixed diet, while only 7.14% followed a vegetarian diet, showing that dietary patterns may not significantly influence the incidence of LGIH in this cohort (Table 3).

Substance Abuse

Substance abuse was prevalent in 52.04% of the patients, with alcohol consumption accounting for 45.92% and smoking for 6.12%. The remaining 47.96% of patients had no history of substance abuse (Table 4).

Altered Sleep and Bowel Habits

A high prevalence of altered sleep patterns (86.7%) was observed among the patients, suggesting a potential association with LGIH symptoms. All patients (100%) reported altered bowel habits, a key symptom of LGIH (Tables 5 and 6).

Colonoscopy Findings

Colonoscopy revealed hemorrhoids as the most common finding (26.54%), followed by rectal carcinoma (23.47%), colorectal cancer (20.41%), and colon cancer (8.17%).

Other findings included fissures (7.15%), polyps (2.05%), inflammatory bowel disease (4.09%), and carcinoma of the anal canal (1.03%). Notably, 7.15% of the patients had normal colonoscopy results, indicating no visible pathology (Table 7).

Discussion

Lower gastrointestinal hemorrhage (LGIH) is a multifaceted clinical condition with a broad spectrum of underlying causes. This study highlights the importance of colonoscopy as a diagnostic tool, providing insights into the demographic distribution, risk factors, and colonoscopic findings among patients presenting with LGIH.

Demographics and Risk Factors

The study revealed that LGIH predominantly affects individuals aged 41-50 years (25.51%), aligning with existing literature that identifies middle-aged and older populations as being at higher risk due to age-related changes in the gastrointestinal tract and increased prevalence of comorbidities [1,2]. Male patients slightly outnumbered females, consistent with prior research suggesting a higher prevalence of gastrointestinal disorders among men due to lifestyle factors and differential exposure to risk factors such as smoking and alcohol consumption [3].

Substance abuse, particularly alcohol (45.92%), emerged as a significant contributor to LGIH. Chronic alcohol use is known to cause mucosal damage, exacerbate hemorrhoidal disease, and contribute to the development of malignancies, thereby increasing the risk of bleeding [4]. Similarly, altered sleep patterns (86.7%) and bowel habits (100%) were observed in most patients, emphasizing the role of lifestyle factors and gastrointestinal dysfunction in LGIH [5].

Colonoscopy Findings

The most frequent colonoscopic finding was hemorrhoids (26.54%), which are a well-documented benign cause of LGIH [6]. However, a substantial proportion of patients were diagnosed with malignant conditions, including rectal carcinoma (23.47%), colorectal cancer (20.41%), and colon cancer (8.17%). These findings highlight the critical role of colonoscopy in the early detection of malignancies, particularly in high-risk populations [7].

Previous studies have emphasized the increasing burden of colorectal cancer worldwide and the importance of routine screening for timely intervention [8]. Other notable findings included fissures (7.15%), polyps (2.05%), and inflammatory bowel disease (4.09%), which

collectively accounted for a significant number of cases. The presence of normal colonoscopy results in 7.15% of patients underscores the necessity of further investigations in cases where no visible pathology is detected [9].

Comparison with Existing Literature

This study's results are consistent with prior research demonstrating the predominance of hemorrhoids and malignancies in LGIH [6,7]. The high prevalence of rectal and colorectal cancers reinforces the need for public health initiatives promoting awareness and early screening [8]. Furthermore, the association of substance abuse and altered lifestyle factors with LGIH aligns with existing evidence linking these variables to gastrointestinal pathologies [4,5].

Clinical Implications

The findings underscore the pivotal role of colonoscopy in diagnosing and managing LGIH. Early identification of malignancies and other significant conditions can facilitate timely treatment, improve patient outcomes, and reduce the burden on healthcare systems. Additionally, addressing modifiable risk factors, such as substance abuse and lifestyle habits, may help in preventing recurrent bleeding episodes and associated complications.

Conclusion

This study contributes to the growing body of evidence on LGIH, emphasizing the diverse etiologies and critical role of colonoscopy in its management. Future research should focus on long-

term outcomes and the development of targeted interventions to mitigate risk factors and improve patient care.

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