



Research Article

Journal of MAR Gastroenterology (Volume 1 Issue 3)

## **Colonoscopic Findings in Patients Presenting with Lower GI Bleed in Geriatric Patients**

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**Received Date: June 27, 2022**

**Published Date: July 05, 2022**

## Abstract

**Context;** lower GI bleeding is one of the commonest emergency in tertiary care hospitals.it has multiple etiologies with marked geographical variations. Colonoscopy is usually first test to know the etiology of bleeding per rectum.

**Aims;** aim of our study to know the colonoscopic findings in patients presenting with lower GI bleed.

**Design;** it is a retrospective study comprising of one year from January 2021 to December 2021 in multiple settings.

**Subject and methods;** patients admitted in hospital and outpatient clinics with bleeding per rectum were analyzed and data collected in terms of age, sex, location and cause of bleeding.in all patients, colonoscopy was done after proper preparation according to the protocol. Statistical analysis was done using spss.

**Results;** during one year of study duration, 60 patients were admitted with mean age of 68.5 years. In these patients' location of bleeding was found in colorectal area in 70% and in 15% it was perineal cause. Malignancy was found to be the commonest cause keeping in view geriatric patients.

**Conclusion;** lower GI bleeding is one of the very common emergency presenting in gastroenterology department. Geographic variations are very wide regarding the cause of lower GI bleed. Colorectal carcinoma is commonest cause of bleeding. Colonoscopy is extremely important id diagnosing and evaluating patients in lower GI bleeding.

**Key word.** Colonoscopy, Colorectal carcinoma, Lower Gastrointestinal Bleeding.

## Introduction

Lower GI bleeding is defined as bleeding distal to ligament of trietz till anal canal [1]. it is one of the common emergency presenting into gastroenterology department and one of the biggest cause of morbidity and mortality in elderly patients [2]. exact incidence of lower GI bleeding is not exactly well-known according to literature but annual rate of hospitalization is about 20 to 27 per 100000 persons per year<sup>3</sup>.there is many fold increase in incidence of lower bleed when the age is between 60 to 90 years. Incidence usually increases with age and is dominant in males as compared to females. There are geographical variations in causes of lower GI bleed. In west the major cause of bleed is diverticular bleeding unlike in eastern hemisphere, common causes include diverticular bleed 17 to 56%,

angiodysplasia 3 to 30%, hemorrhoids 3 to 25%, and polyp 2 to 20 % [3]. mean age of presentation is between 63 to 77 year of life [5, 6]. in US about 35 per 100000 per patients are admitted with lower GI bleed annually [7, 8]. Majority of patients have self-limited bleed with uncomplicated course of hospitalization.

Sometimes it can be massive and life-threatening as well. As compared to upper GI bleed, patients presenting with lower GI bleed have usually high HB level and very rarely required transfusion and can go in to hypotensive shock [9,10]. usually 2 to 4% patients have massive lower bleed and they usually have multiple comorbidities. Colonoscopy is the main procedure done to diagnose the cause after stabilization of the patient. It has very high diagnostic yield about 90% [12]. the aim of this study to find out colonoscopy findings in patients presenting with bleeding per rectum in our parts of the world and its outcome.

**Aims;** aim of our study to know the colonoscopic findings in patients presenting with lower GI bleed.

### **Subjects and Methods**

This was multicenter study done at services hospital Peshawar and outpatient clinics. It is retrospective study conducted from January 2021 to December 2021. 60 patients were included in the study who presented with lower GI bleeding in geriatric patients. Clinical data including age, sex, location of bleed and diagnosis was determined. All the patients underwent colonoscopy after full preparation, biopsies were also taken where needed. The following criteria have been suggested for identifying site of bleeding on colonoscopy:

- Active colonic bleeding
- Nonbleeding visible vessel
- Adherent clot
- Fresh blood localized to a colonic segment
- Ulceration of diverticulum with fresh blood in adjoining area
- Absence of fresh bleed in terminal ileum with fresh blood in the colon

### **Results**

During one year of study from January 2021 to December 2021, 60 patients with lower GI bleeding admitted to GI department, 40 males and 20 females, having mean age of 68.5 years (60 to 80), range of HB level was between 6 to 13 mg/dl, the location of bleeding was colorectal region in 42 patients (70%) while 9 patients (15%) in perianal location. Perianal cause of bleeding was present in 9 patients

having 6 males and 3 females.in these 5 patients were having hemorrhoids, 2 patients were having malignancy and 2 were having anal fissure.

Commonest symptom in our study was bleeding per rectum in 50 patients (83%), followed by abdominal pain in 30 patients (50 %), loose motion were present in 20(33%), while frank bleeding was noted in 15 patients (25%). constipation was found in 10 patients (17%).

Colorectal causes were found in 42 patients (70%), 35 males and 7 females, having, and mean age of 68.5 years (60 to 80) .in these patients colonic carcinoma was present in 15 patients while rectal carcinoma was present in 10 cases. Different other etiologies found were ulcerative colitis in 5 patients, on specific colitis in 5 patients, polyp in 4 patients, while angiodysplasia in 3 patients, while in 8 patients no cause and source of bleeding was found. Anemia was present in 30 patients (50%).

**Presenting complaints**

<b>Complaints</b>	<b>numbers (%)</b>
Bleeding per rectum	50(83%)
Abdominal pain	30(50%)
Loose motions	20(33%)
Frank bleeding	15(25%)
Constipation	10(17%)

**Causes of lower GI bleeding in our study**

<b>Causes</b>	<b>Number of cases (%)</b>
<b>Perianal causes</b>	
Hemorrhoids	5(8.3%)
Malignancy	2(3.3)
Anal fissure	2(3.3)
<b>Colorectal causes</b>	
Colonic carcinoma	15(25%)
Rectal carcinoma	10(16.6%)
Ulcerative colitis	5(8.3%)
Nonspecific colitis	5(8.3%)
polyp	4(6.6%)
angiodysplasia	3(5%)

**Sex distribution**

Male (%)	Female (%)
40(66.6)	20(33.3)

**Age distribution**

Age in the years	Number of cases
60 to 64	8
65 to 69	32
70 to 74	18
75 to 79	2

**Discussion**

Lower GI bleeding is one of the commonest problem presenting to gastroenterology department, sometimes having high morbidity and mortality. Most of the patients have good prognosis even in geriatric patients having comorbidities. Clinical outcome can be very variable from occult bleeding to frank lower bleed which can cause even death. Symptoms of lower GI bleed are also variable. Most common symptom in our study was intermittent bleeding per rectum, although patients were hemodynamically stable. It was followed by abdominal pain and loose motions, however some patients presented with frank lower GI bleeding with hemodynamic instability and these are the patients who require intensive monitoring preferably in ICU settings. These symptoms were comparable with other studies done<sup>3</sup>. It is understandable that AV malformations and diverticular related bleed is usually found in older ages as compared to hemorrhoids and anal fissure which are usually found in younger patients<sup>4</sup>. Malignancy rate usually increases with age both in males and females.

In our study, we came to know that carcinomas are the most important cause of lower GI bleeding in geriatric patients, followed by ulcerative colitis and nonspecific colitis. This trend is similar to other studies conducted in Pakistan and our neighbors like India and China where carcinoma and ulcerative colitis are the predominant causes of bleeding per rectum in older people, while diverticular bleed is very rare as compared to western countries [13].

Hemorrhoids is also one of the common cause of bleeding per rectum irrespective of the age, our study also showed the same trend, usually it is number one cause all over the world but in our study it was on 4<sup>th</sup> number as our study group was comprising of giardia tic patients. Regarding the causes of lower GI bleeding, western countries have shown different etiologies as compared to our part of the developing world [14].

In our study, the most common cause was carcinoma, followed by ulcerative colitis, nonspecific colitis and the hemorrhoids, while angiodysplasia, polyp, anal fissure and diverticular bleed patients were small in number. While in western countries diverticular bleed is the most common cause [13]. an important finding in our study is that carcinoma and ulcerative colitis is predominant cause of lower GI bleeding, one can assume that most of these carcinoma cases might be due to subclinical ulcerative colitis as ulcerative colitis predispose the patients to malignancy as well in long term. so our study shows that malignancy is number one cause of bleeding per rectum and colonoscopy is the initial diagnostic test. Colonoscopy has greater advantages as compared to radiological test as it can direct visualize the lesion, even therapeutics can be done to stop the bleeding and tissue samples can also be taken.

### **Conclusion**

Lower GI bleeding is very common problem especially in geriatric patients. Carcinoma is the most important cause followed by ulcerative colitis and other types of nonspecific colitis in south Asian countries. While in western countries, diverticular bleed is the commonest cause. Colonoscopy is diagnostic procedure of choice as it can directly visualize the lesions, can take tissue sample and even stop the bleed through therapeutics.

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