

Original Article

Colonoscopic Findings in Patients with Lower Gastrointestinal Symptoms at a Tertiary Care Hospital of South Punjab, Pakistan

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Abstract

Background: In the last few decades, lots of improvement has been seen in diagnosis and treatment of patients with lower gastrointestinal (GI) disorders.

Objective: To determine colonoscopic findings among patients presenting with lower gastrointestinal (GI) symptoms.

Methods: This cross-sectional descriptive study was conducted at The Department of Medicine, Civil Hospital, Bahawalpur from January to December 2019. A total of 150 patients of both gender aged 18 to 65 years and lower GI symptoms were enrolled. All patients were enrolled from emergency or outpatient department and admitted. Patient's demographics along with indications for colonoscopy and colonoscopic findings were recorded. Age was represented as mean and standard deviation while qualitative variables like gender and colonoscopic findings were shown as frequency and percentages.

Results: Out of a total of 150 patients, 102 (68.0%) were male. Mean age was noted to be 42.10 years with standard deviation of 15.4 years. Topical Xylocaine Gel only was the commonest choice adopted as premedication in 102 (68.0%) patients. Ulcerative colitis was the most frequent colonoscopic finding seen amongst 20 (13.3%) patients followed by hemorrhoids 19 (12.7%), anitis 17 (11.3%), suspected CA colon 16 (10.7%) and solitary rectal ulcer 12 (8.0%). Normal Colonoscopic finding was observed among 50 (33.3%) patients

Conclusion: Ulcerative colitis followed by hemorrhoids, anitis and suspected CA colon were the most common Colonoscopic findings. Most common indications for colonoscopy were revealed to be bleeding per rectum followed by lower abdominal pain.

Keywords: Colonoscopy, Lower Abdominal Pain, Bleeding per Rectum, Ulcerative Colitis.

How to cite this:

Ullah HMK, Shafiq M, Ali QM, Ahmed S, Iftikhar A, Anwar Q. Colonoscopic Findings in Patients with Lower Gastrointestinal Symptoms at a Tertiary Care Hospital of South Punjab, Pakistan. J Pak Soc Intern Med. 2021;2(1):47-50

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Introduction

In the last few decades, lots of improvement has been seen in diagnosis and treatment of patients with lower gastrointestinal (GI) disorders. Colonoscopy is known to have variety of indications like evaluation of lower GI bleeding, chronic diarrhea, chronic constipation, abdominal pain, weight loss or screening or surveillance

for colon cancers.¹ Colonoscopy is also considered as the “gold standard” for the evaluation of lower GI bleeding (LGIB), altered bowel habits, anaemia and finding colorectal cancers.² An efficient endoscopy outcome requires quality examination along with skilled endoscopist, proper colon preparation and patient's cooperation under appropriate analgesia and

sedation.^{3,4}

In developed countries, an admission rate of LGIB as 150 per 100000 is noted while mortality ranges between 5-10%.⁵ Among patients of GI bleeding, around 30% are estimated to have lower GI bleeding (LGIB). Among developed countries, the incidence of LGIB is estimated to be between 20-27 cases per 100000 yearly.⁶ Haematochezia is the commonest presentation of LGIB while more than 80% of patients having colon involvement.⁷ Gayer C and Coworkers from USA evaluating 1112 patients with endoscopy noticed diverticulosis followed by hemorrhoids and carcinoma to be the most common etiologies. Hematochezia was noticed to be the commonest (55.5%) presentation.⁸ Recent local data reveals hemorrhoids (22.3%) followed by inflammatory bowel disease (17.1%) to be the commonest colonoscopic findings.⁹ In the previous decades, ulcerative colitis followed by malignancy have been revealed as the most common colonoscopic findings.¹⁰ This study was aimed to determine colonoscopic findings among patients with lower GI symptoms from a leading government tertiary care hospital of South Punjab. The findings of this study will update whatever is known about Colonoscopic findings among patients presenting with lower GI symptoms.

Methods

This cross-sectional descriptive study was done at The Department of Medicine, Civil Hospital, Bahawalpur from January 2019 to December 2019. A total of 150 patients of both gender aged 18 to 65 years and lower GI symptoms were enrolled. Patients suspected to have upper GI bleeding (having history of hematemesis or malena, vomiting or nasogastric aspirates having coffee-ground material or fresh blood were excluded. Patients having acute infectious bloody diarrhea were also not enrolled. Patients having suspicion of peritonitis, history of coagulopathy or those who were not willing for colonoscopy or refused to be part of this research were also excluded. Approval from Institutional Ethical Board was taken for this research. Written consent was sought from all study participants.

All patients were enrolled from emergency or out-patient department and admitted. Medical history and physical examination was done among all patients. After admissions, all patients were monitored and managed according to institutional protocols. Anti-coagulant drugs and nonsteroidal anti-inflammatory drugs were stopped prior to colonoscopy. All study participants were asked to have liquid intake only, 2 days before colonoscopy. Enema administration was done on the previous night and during the day prior to colonoscopy day. Pentax video colonoscope was

adopted for all colonoscopies.

Patients demographics along with indications for colonoscopy and colonoscopic findings were recorded on a specifically designed proforma. SPSS version 26.0 was used for statistical analysis. Age was represented as mean and standard deviation while qualitative variables like gender, indications for colonoscopy, pre-medications used and coloscopic findings were shown as frequency and percentages.

Results

Out of a total of 150 patients, 102 (68.0%) were male and 48 (32.0%) female. Mean age was noted to be 42.10 years with standard deviation of 15.4 years. Most of the patients, 86 (57.3%) patients belonged rural areas.

Table number 1 shows indications for colonoscopy among study participants. Bleeding per rectum was the commonest indication for colonoscopy, noted among 79 (52.7%) followed by lower abdominal pain 33 (22.0%).

Table 1: Indications of Colonoscopy Among Study Participants (n=150)

Indications	Number (%)
Bleeding per Rectum	79 (52.7%)
Lower Abdominal Pain	33 (22.0%)
Suspected Colonic Tumor	11 (7.3%)
Chronic Diarrhea and Anemia	9 (6.0%)
Severe Constipation	4 (2.7%)
Others	14 (9.3%)

Table number 2 highlights different pre-medications used prior to colonoscopy. Topical Xylocaine Gel only was the commonest choice as pre-medication adopted in 102 (68.0%) patients.

Table 2: Pre-medications Used among Patients Undergoing Colonoscopy

Pre-medications	Number (%)
Topical Xylocaine Gel Only	102 (68.0%)
Topical XylocaineGel+I/V Nelbuphine	13 (8.7%)
Topical Xylocaine Gel + Ketamine	8 (5.3%)
Other Combinations	27 (18.0%)

Ulcerative colitis was the most frequent colonoscopic finding seen amongst 20 (13.3%) patients followed by hemorrhoids 19 (12.7%), anitis 17 (11.3%), suspected CA colon 16 (10.7%) and solitary rectal ulcer 12 (8.0%). Normal Colonoscopic finding was observed among 50 (33.3%) patients. Table number 3 enlists Colonoscopic findings among all study cases.

Table 3: Colonoscopic Findings among Patients (n=150)

Colonoscopic Findings	Number (%)
Normal	50 (33.3%)
Ulcerative Colitis	20 (13.3%)
Hemorrhoids	19 (12.7%)
Anusitis	17 (11.3%)
Suspected CA Colon	16 (10.7%)
Solitary Rectal Ulcer	13 (8.7%)
Polyps	4 (2.7%)
Ileocecal Tuberculosis	4 (2.7%)
Others	7 (4.7%)

Discussion

Colonoscopy has high sensitivity and specificity while the procedure is considered to be safe with low chances of major complications.¹¹ In the present study, 68.0% of the patients undergoing colonoscopy were male. This male predominance is similar to what Channa SM et al found recently where they noted 56.8% of their patients undergoing colonoscopy at GI unit of tertiary care hospital from Sindh province of Pakistan.¹² Data from Iran¹³ have revealed a female predominance among patients undergoing colonoscopy but as a whole international^{14,15} data is consistently showing male predominance.

We noted bleeding per rectum to be the commonest indication for colonoscopy, noted among 52.7%. Most commonly established indications for colonoscopy are considered to be family history of colorectal cancer or adenomatous polyposis, hereditary non-polyposis colon cancer or bleeding per rectum.¹⁶ In cases of high index of suspicion for LGIB, proctosigmoidoscopy followed by colonoscopy are endorsed for further evaluation and treatment.^{17,18} A high rate of re-bleeding as 46% among patients of LGIB was noted in a study done in USA with a mortality rate of 13% within 5 years following hospitalization. Patients aged more than 65 years with LGIB and using anti-thrombotic drugs are not only at increased risk for bleeding but chances of mortality are also high.¹⁹ Upper GI bleeding (UGIB) seems to be more prevalent than the LGIB, reason behind this could be that LGIB is underreported because patient with LGIB usually don't visit the doctor for their problem. We had recorded lower abdominal pain in 22.0% to be the 2nd most common indication for colonoscopy among our patients. International literature reveals colonoscopy to be less rewarding among patients having lower abdominal pain^{20,21} but colonoscopy for patients presenting with chronic abdominal pain or abdominal discomfort of non-specific origin might be useful

however this is yet to be documented.

Abnormal Colonoscopic findings were observed in 66.7% of our patients while 31.3% colonoscopies turned out to reveal normal findings. Data from Nepal reveals similar statistics where Chaudhary S et al noted abnormal colposcopy findings among 72.5%.²² Ulcerative colitis was the most frequent colonoscopic finding among our cases (13.3%), followed by hemorrhoids (12.7%). Environmental factors are thought to play major role in the expression of ulcerative colitis while role of diet, oral contraceptives, childhood or perinatal infections need further research.²³ Our results are quite similar to what was reported by Al-Shamali MA et al where ulcerative colitis was the most common Colonoscopic finding seen in 26.0% patients while colonic polyps were seen in 22% patients followed by colon cancer in 10%.²⁰ Recent local data has revealed that ulcers were noted to be among 17.8% cases undergoing colonoscopies.¹² Contrary to our findings, Jehangiri A et al revealed hemorrhoids to be the commonest finding among patients undergoing colonoscopy (22.3%), followed by inflammatory bowel disease (17.1%) and polyps in 14.3%.⁹ The difference could be that Jehangiri A et al considered patients that were having bleeding per rectum while we included patients that were presented with lower GI symptoms with no compulsion of per rectum bleeding.

Being the 1st study from South Punjab highlighting most common pattern of indications and findings of colonoscopies performed among patients presenting with lower GI symptoms is the strength of this study. In terms of limitations of this study, we were unable to document complications of colonoscopies among our patients. This was also a single center study so results cannot be generalized. Further studies involving multiple centers and different sets of population will further add to what little is known about various aspects of Colonoscopic findings locally.

Conclusion

Ulcerative colitis followed by hemorrhoids, anusitis and suspected CA colon were the most common Colonoscopic findings. Most common indications for colonoscopy were revealed to be bleeding per rectum followed by lower abdominal pain.

Acknowledgment

The authors are thankful to Muhammad Aamir (Research Consultant, Bahawalpur) for his technical assistance regarding drafting of this manuscript.

Conflict of Interest

None

Funding Source

None

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