

Original Article

DIAGNOSTIC OUTCOMES OF PATIENTS PRESENTING WITH PER RECTAL BLEED IN SURGICAL DEPARTMENTS OF SERVICES HOSPITAL LAHORE

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Objective: To determine the diagnostic outcome of patients presenting in Out-Patient Department with per rectal bleeding.

Methods: Patients presenting in the SOPD falling under inclusion criteria were recruited for the study. Detailed history along with clinical examination and laboratory tests were carried out for every patient. Data of each participant was recorded on a structured questionnaire, and the data was entered in SPSS version 22. Descriptive statistics were used to calculate frequency and percentages, represented using pie charts and cross tables.

Results: In the study, male to female ratio was 1:1.9. Hemorrhoidal disease was the most common cause of rectal bleed at 39% among the participants followed by anal fissure (30.5%). Colorectal carcinoma (21%) was the third most common cause.

Conclusions: It was concluded that hemorrhoid disease was the most common cause of rectal bleeding in surgical OPD followed by anal fissure. Colorectal carcinoma was the third most common cause in this study.

Keywords: rectal bleeding, out-door patient department, diagnostic outcome.

Introduction

Rectal bleeding, referred to as rectal hemorrhage, is a common symptom in general population that occurs due to an underlying pathology.¹ It may be a serious underlying cause or a self-limiting one. The incidence of rectal bleeding has been reported to be between 16% and 33% during life of an adult.² The causes of rectal bleeding include hemorrhoids, colorectal carcinoma, anal fissure, rectal polyp, ileocecal TB, mesenteric ischemia, solitary rectal ulcer, ulcerative colitis, rectal prolapse and gastro intestinal stromal tumors (GIST),³ there are many other pathologies that can lead to rectal bleed but this study will limit to the causes mentioned. Colorectal carcinoma has been found in high prevalence among adults of age more than 50 years⁴ along with cases of hemorrhoids and anal polyps. In young population, mostly hemorrhoids and anal fissure are related to rectal hemorrhage.⁵ In developed countries colonoscopy is done after the age of 40 years as a screening tool for anorectal malignancies. However, in the developing countries, due to lack of resources, colonoscopy is not usually done as a screening tool. In these countries patient usually present with per rectal bleed which is then diagnosed through clinical examination and proctoscopy and the doctor advises colonoscopy or sigmoidoscopy if the etiology is not understood.⁶

Bleeding per rectum is a common presentation in the surgical out-patient department (OPD). This study focuses on the diagnostic outcome of patients presenting with this symptom in the Surgical Outdoor of Services Hospital Lahore, which is a tertiary care hospital present in the heart of Lahore city, Pakistan. It is an 1192 bedded hospital containing all the major specialized departments. The outcome will provides facts about prevalence of different surgical pathologies that lead to per rectal bleed in surgical department of our setup.

Methods

This was a cross sectional study carried out in the Surgical Out-Patient Department (SOPD) of Services Hospital Lahore from 1st September 2017 to 31 August 2018, including 367 patients. Non-probability purposive sampling technique was performed for participant recruitment. Patients of both sexes and age greater than 16 years and presenting with chief complaint of rectal bleeding were included in the study. Patient with upper gastrointestinal source of bleeding, rectal bleeding as an outcome of infectious bloody diarrhea and patients with previously known bleeding disorders, chronic liver disease, taking any anti coagulants and medical causes of bleeding (IBS etc) were excluded from study.

Patients presenting in the SOPD falling under

inclusion criteria were recruited for the study. Detailed history along with clinical examination and laboratory tests were carried out for every patient. Consent was taken from every participant and permission from the ethical board of the hospital was also granted. Participants who were not diagnosed through clinical examination of rectum were advised to undergo sigmoidoscopy or colonoscopy age, gender and diagnostic outcome of each participant was recorded on a structured questionnaire, and the data was entered in SPSS version 22. Descriptive statistics were used to calculate frequency and percentages, represented using pie charts and cross tables. All the work performed in this study was in line with the STROCSS criteria.⁸

Results

In the study the most common age group was 26-35 years followed by 36-45 years at 21%. Male participants were more in number than females at 65.4%. In the present study, hemorrhoidal disease remained the most common cause of rectal bleed in total at 39% and it was found to have occurred most frequently in age group 36-45 years. The second most observed disease was anal fissure at 30.5% and it was seen in age group of 26-35 years most commonly. Diseases such as GIST, ulcerative colitis, rectal prolapse and solitary rectal ulcer were the most rare with frequency less than 1%. Rectal polyp, ileocecal TB and mesenteric ischemia were

also not very common among the participants with an average percentage of 2.5 each. Colorectal carcinoma was found out to be the third most commonly occurring cause of rectal bleed at 21%.

Furthermore, it was illustrated that hemorrhoidal disease was most common disease in both genders with percentages of 12.8% and 26.2% in males and females respectively, followed by anal fissure. In addition, it was also deduced from the study that anal fissure and hemorrhoidal disease were more common among females with rectal bleed, but colorectal carcinoma was more common among male patients presenting with rectal bleeding.

Table-2: Diagnostic outcome according to gender.

Diagnosis	Gender		Total (%)
	Female	Male	
Anal Fissure	20 (100%)	20 (100%)	6 (30%)
Hemorrhoids	20 (100%)	20 (100%)	12 (60%)
Colorectal Carcinoma	2 (10%)	2 (10%)	4 (20%)
Rectal Polyp	20 (100%)	20 (100%)	0 (0%)
Ileocecal TB	4 (20%)	4 (20%)	0 (0%)
Mesenteric Ischemic	20 (100%)	20 (100%)	20 (100%)
G IST	20 (100%)	20 (100%)	20 (100%)
Solitary Rectal Ulcer	20 (100%)	20 (100%)	10 (50%)
Ulcerative Colitis	6 (30%)	6 (30%)	0 (0%)
Rectal Prolapse	0 (0%)	0 (0%)	2 (10%)
Total	4 (20%)	4 (20%)	0 (0%)

Table-1: Diagnostic outcome according to age of the study participants.

Diagnosis	Age Group (%)						Total (%)
	16-25	26-35	36-45	46-55	56-65	>65	
Anal Fissure	23 (6.3)	41 (11.2)	23 (6.3)	22 (6)	2 (0.5)	1 (0.3)	112 (30.5)
Hemorrhoids	19 (5.2)	35 (9.5)	35 (9.5)	26 (7.1)	16 (4.4)	12 (3.3)	143 (39)
Colorectal Carcinoma	10 (2.8)	13 (3.5)	13 (13.5)	12 (3.3)	22 (6)	7 (1.9)	77 (21)
Rectal Polyp	5 (1.3)	2 (0.5)	0 (0)	1 (0.3)	2 (0.5)	0 (0)	10 (2.7)
Ileocecal TB	2 (0.5)	2 (0.5)	4 (1.1)	1 (0.3)	0 (0)	0 (0)	9 (2.5)
Mesenteric Ischemic	1 (0.3)	1 (0.3)	2 (0.5)	2 (0.5)	2 (0.5)	1 (0.3)	9 (2.5)
G IST	0 (0)	1 (0.3)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.3)
Solitary Rectal Ulcer	1 (0.3)	0 (0)	0 (0)	1 (0.3)	0 (0)	0 (0)	2 (0.5)
Ulcerative Colitis	1 (0.3)	0 (0)	0 (0)	0 (0)	1 (0.3)	0 (0)	2 (0.5)
Rectal Prolapse	0 (0)	1 (0.3)	0 (0)	0 (0)	0 (0)	1 (0.3)	2 (0.5)
Total	62(16.9)	96 (26.2)	77 (21)	65 (17.7)	45 (12.3)	22 (6)	367 (100)

Discussion

This study shows that rectal bleeding was more frequent in males as compared to the females with a ratio of 1:1.9. This pattern was also seen in other similar studies carried out in Pakistan by Mehanna et al.⁹ showed a male to female ratio as 1:1.8, a study by

Shennak and Tarawneh¹⁰ had a ratio of 1:1.34.

Hemorrhoidal disease was the most common cause of rectal bleed in this study attributing to 39% of the total cases that presented in the OPD followed by Anal fissure at 30.5%, collectively these two benign causes summed up to about 70% of the total cases.

This trend Was also observed in a study by Manzoor, A., S. Shah, and A. Inam.¹¹ A study by Rhee and Lee¹² also reported hemorrhoids to be the most common cause with 65.5% cases, Goulston et al.¹³ showed that hemorrhoidal disease was responsible in 72% of the patients. A research conducted by Mehanna et al.⁹ had 96% of participants with hemorrhoids. In this study anal fissure was the second most common pathology of rectal bleeding attributing to 30.5% cases, this proportion was not in line with other studies, Shennak and Tarawneh¹⁰ had 3% cases of anal fissure, Tade et al.¹⁴ reported only 3.7% cases. Colorectal carcinoma is one of the most common type of malignancy worldwide and also in Pakistan. In this study, the frequency of bleeding per rectum due to this pathology attributed to 21% of the total participants with a male to female ratio of 2:1, this result was supported by other studies also, Manzoor, A., S. Shah, and A. Inam¹¹ in a study reported this ratio as 4.3:1. Same pattern was seen in a research by Makela et al.¹⁵ with 10% cases of colorectal carcinoma, Metcalf, J., et al.³ reported 8%, Schmulewitz et al.¹⁶ 7%, Farner et al.¹⁷ reported a frequency of 17% cases of colorectal carcinoma. Rectal polyp was the fourth most common cause of rectal bleeding in this study at 2.7%, Zia et al.⁷ reported 2.5% cases, Longstreth et al.² 4%. Only 0.5% patients of rectal prolapse were recorded in this research, Tade et al.¹⁴ observed 2.4% frequency, Manzoor, A., S. Shah, and A. Inam¹¹ reported 2.5% of rectal bleeding due to rectal prolapse. Ulcerative

colitis attributed to 0.5% patients as an underlying pathology of rectal hemorrhage, Rhee and Lee¹² reported 3.3%, Farner et al.¹⁷ observed 3%, Longstreth et al.² reported 2% frequency.

Solitary rectal ulcer caused 0.5% cases of rectal bleed, Zia et al.⁷ reported 4% cases of this syndrome, Manzoor, A., S. Shah, and A. Inam¹¹ observed a frequency of 1%. However, solitary rectal ulcer syndrome(SURS) can be a representation of an underlying malignancy, so a histological examination is important.¹⁸ As the incidence of rectal bleeding is increasing in our society, more studies should be done regarding the frequency of different causes. Investigations such as sigmoidoscopy and colonoscopy should be introduced in primary and secondary health units for timely diagnosis of serious pathologies that can prove to be fatal if left untreated. There is a need to provide awareness to people about peri anal region hygiene as diseases such as anal fissure can be prevented through proper hygienic measures.

Conclusion

Hemorrhoidal disease was the most common cause of rectal bleeding in surgical OPD followed by anal fissure. Colorectal carcinoma was the third most common cause in this study. There is a need to upgrade the investigation procedure giving preference to colonoscopy and sigmoidoscopy for a proper diagnosis of an underlying malignancy.

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