

Incidence of Colorectal Carcinoma in Patients with Bleeding Per Rectum

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Objectives: To determine the incidence of carcinoma of rectum and sigmoid colon in patients with bleeding per rectum using sigmoidoscope (rigid). **Design** Observational and interventional study. **Setting** A total of 231 patients attending surgical outpatient department from 1-1-2000 to 31-12-2002 with complaints of bleeding per rectum. **Interventions:** Per rectal digital and sigmoidoscopic examination was done in all patients. Biopsy taken of all ulcers, bleeding or hyperemic areas, polyps and growths and histological examination was done to determine the true positive case of rectal or sigmoid colon cancer. **Results:** Endoscopic Examination completed in 204 subjects. Three rectal and one growth at recto sigmoid junction were found (frequency 1.96%) three were males and one was female. The two growths in rectum were polypoid and one was annular involving whole circumference. The growth at recto sigmoid junction was fungating mass. All were Aden carcinoma. Three were well differentiated and one moderately differentiated sigmoidoscopy identified bleeding source in 197 subjects (96.6%). No significant complication was observed. **Conclusion:** Rectal and sigmoid carcinoma is less frequent in our population than western community. Sigmoidoscopy (rigid) is an important diagnostic tool in evaluation of bleeding per rectum with less frequent complications.

Key Words: Bleeding per rectum, sigmoidoscopy.

Bleeding per rectum is found to be one of the common problems in patients attending surgical out patient clinic¹. Acute lower gastrointestinal hemorrhage accounts for approximately 1.5% of all surgical emergencies². Fortunately in most patients' even profound acute lower gastro intestinal hemorrhage is self limiting allowing investigations to be performed both during the acute episode and between bleeds. A thorough approach is required to negotiate the problem via good history, clinical examination and proper investigations. Multiple diagnostic modalities are available for evaluation of bleeding per rectum. Selection of appropriate investigations for such patients can be customized to local requirements. Colorectal carcinoma is an important cause of bleeding per rectum and they are most commonly located in the rectum followed by caecum and sigmoid colon with overall preponderance of left colon^{5, 7}. Endoscopic evaluation of distal GIT remains the most important technique in the accurate diagnosis of colonic disease especially carcinoma³. Sigmoidoscopy needs little or no preparation, done without sedation and at outpatient clinics.

Most patients with rectal carcinoma present with bleeding, which is earliest and most common sign⁴. In view of tendency of colorectal disease to concentrate in the distal portion of large intestine, it may be that accurate examination of distal part may be sufficient for clinical purposes, although ideally the whole colon should be examined. Examination (rigid) was done in all patients and the diagnosis of rectal cancer is needlessly delayed while the symptoms are attributed to haemorrhoids or anal fissure.

Aims and Objectives:

To determine the frequency of carcinoma of rectum and sigmoid colon in patients with bleeding per rectum and to

determine the diagnostic role of sigmoidoscopy in the malignant lesions of rectum and sigmoid.

Materials and Methods:

All the patients beyond the age of 12 years who came in the out patient department of Lahore General Hospital Lahore with the complaints of bleeding per rectum from Jan 2000- Dec 2002. Patients with known bleeding or coagulation disorders, acute fulminating inflammatory disease of anus, with generalized sepsis were excluded. After taking careful history thorough clinical examination sigmoidoscopy was performed in all patients as day case procedure in operation theaters or as an office procedure in out patients department. No sedation and no anesthesia was employed. In few cases klean anema 20 – 30 minutes before procedure was used to clear the distal bowel. No other test was employed synchronously. Biopsy was taken from ulcers, bleeding or hyperemic areas, polyps, growths and histological examination was done to determine the true positive cases of rectal or sigmoid colon cancer.

Results:

In this study, 231 patients with bleeding per rectum were invited for sigmoidoscopic examination but 22 patients refused or did not attend the examination. Sigmoidoscopy was discontinued in 5 patients due to discomfort or non-cooperation. So 204 patients were examined in the study. Digital rectal examination was done in all patients before sigmoidoscopy. Hard mass was palpable in one patient which was a polypoid growth 6cm away from anal verge. Out of 204 patients 130 were males and 74 were females (1.74: 1) as shown in figure 1. Examination was completed up to sigmoid colon in 197 patients (96.6%) while in 7 patients (3.4%) sigmoidoscopy was unsuccessful as shown in figure 2. Data obtained included

lesions identified, morphological features and site of lesions. Any ulcer, ployps, sessile growth or suspicious bleeding or hyperemic areas were biopsied and analyzed by independent histopathologist. In this study we found thirty-three benign polyps and four malignant growths as shown in figure 3. Out of Malignant growths three were in rectum (two males and one female) and one at rectosigmoid Junction (Male) as shown in Table 1 out of rectal growths two were polypoid type (one 6 cm and second 12 cm from anal verge) And one was annular involving whole circumference of rectum 13 cm from anal verge. The growth at rectosigmoid junction was a fungating mass with ulcerated surface 20 cm from anal verge as shown in Table 2. Two patients were in range of 31-40 years one in 51-60 years and one was above 60 years old. The youngest was 32 years and oldest 69 years old as shown in Table 3. On microscopic examination, four malignant growths were found (1.96% of all pathologies) all were adenocarcinomas. Out of these three were well differentiated and one was moderately differentiated (Table). In 209 examinations no significant complication was observed. In five patients sigmoidoscopy was discontinued due to discomfort. Mild bleeding occurred on taking biopsy from rectum in one female patient, which stopped within 24 hours with conservative measures.

Fig. 3: Nature of lesions

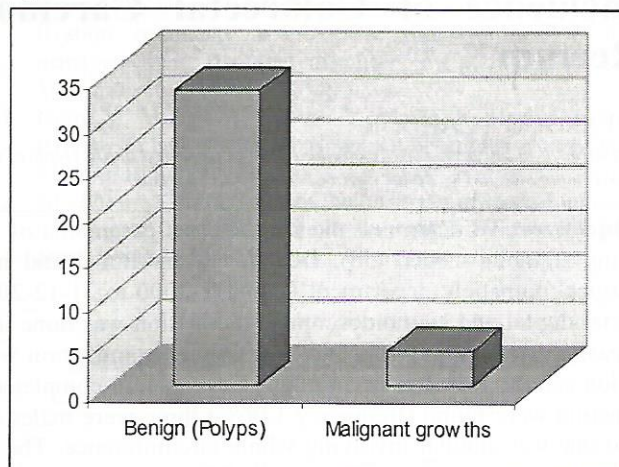


Fig. 1: Sex distribution

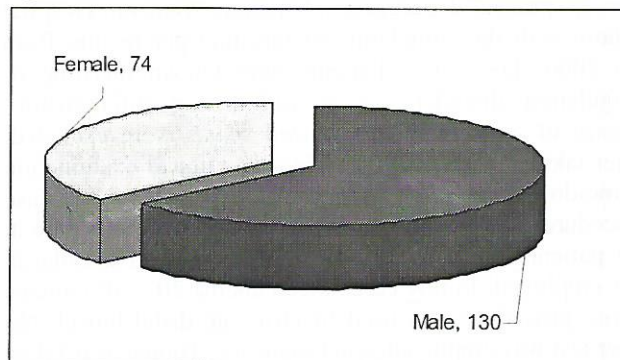


Table 1: Site involvement by malignant growth

Rectum	Sigmoid Colon
3 (2 males , 1 female)	1 (Male)

Table 2: Distance from anal verge

Rectum (cm)	Sigmoid Colon (cm)
• 6	20
• 12	
• 13	

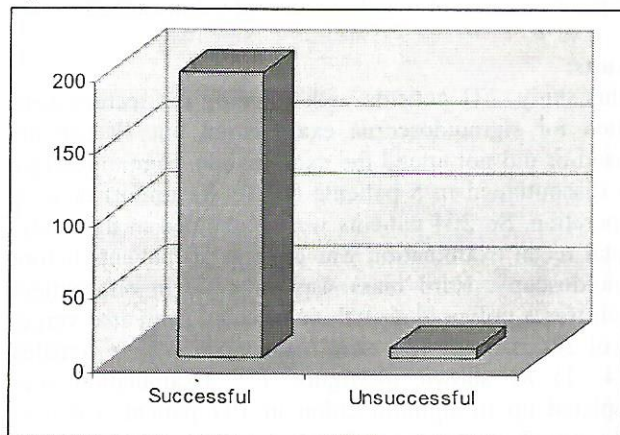
Table 3: Grades of malignancy

Differentiated	Moderately Differentiated	Poorly Differentiated
Three	One	None

Discussion:

Bleeding per rectum is a common problem associated sometimes with serious disease and malignancy is one of those conditions. Early evaluation of this frightening symptom is worthwhile and needs a quick and easy approach. Support for population screening for colorectal cancer has been gathering over past 8 – 10 years. Screening for neoplasia in rectum and sigmoid colon with sigmoidoscopy is suggested to be more effective than occult fecal blood, particularly any persons between 50-60 years of age. So a single diagnostic technique leading to early diagnosis of recto sigmoid carcinoma may herald proper treatment (possibly curative). Use of endoscopy provides a solution to this problem fulfilling not only diagnostic but therapeutic purposes. Rigid sigmoid scopes are usually readily available and may be used with less sophisticated training and skills but the introduction of flexible sigmoidoscope has allowed non specialist to participate in the diagnostic evaluation of colon. Data from this study suggests a definite correlation between endoscopic and histopathological findings. In the present study, the cause of bleeding per rectum in only seven cases was not evaluated by sigmoidoscopy or disease was extending beyond the reach of the instruments. So the

Fig.2: Success rate



diagnostic yield of sigmoidoscopy in this study closely resembles the other studies in this regard (21, 61). Out of lesions identified we found 33(16.17%) polyps all were benign and four cancers of rectum and sigmoid colon (1.96%). This figure is less than in western data^{8, 11, 12} that could be due to less frequency of rectosigmoid carcinoma in this area or patients remained less reported to hospital. The mean age of patients with carcinoma in present study is 49 years. Fifty percent were below 40 years of age. This study matches more with Eithopian and Pakistani data than western studies^{6, 7}. There was 3:1 male to female ratio for rectal and sigmoid cancers. This disparity could be due to fact that our women remain under reported as compared to their western counterparts because of cultural and religious traditions. Regarding the location, three (3) carcinomas were found in rectum and one at rectosigmoid junction. This again shows that rectum is most commonly involved by carcinoma followed by sigmoid colon (10) so this resemble closely with national and international data^{9, 10, 13}. In our study all were adenocarcinomas out of which three were well differentiated and one was moderately differentiated. Regarding complications bleeding occurred in one patient after biopsy of rectal mucosa which settled in 24 hours. No other significant complication happened. This fact along with international studies suggesting safety of sigmoidoscopy and endoscopic biopsy.

Conclusion:

After all the above discussion, it was concluded that rectosigmoid carcinoma is less commonly seen in our population than western communities, males are suffering more than females, while sigmoidoscopy is a useful technique in evaluation of bleeding per rectum and is easily performed as day case or out patient procedure with negligible complications.

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