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Etiology and incidence of lower gastrointestinal bleeding

Wesley Dean Clark
University of Nebraska Medical Center

ETIOLOGY AND INCIDENCE OF LOWER GASTROINTESTINAL BLEEDING

Wesley Dean Clark

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The patient who presents himself to the physician with the complaint of passing blood per rectum is a common problem. Jackman (33) has indicated that this abnormality is probably the most common sign of colon disorders; in a series of 19,581 proctoscopic examinations in 1955, 41.6 per cent of his patients had such bleeding during the preceding two years.

By definition colorectal bleeding refers to blood eminating from that portion of the gastrointestinal tract located distal to the terminal ileum and proximal to the anus.

Usually the physician relies on the patient for information concerning rectal bleeding. A negative history in this respect does not eliminate the presence of such a condition for Feigen (21) cited 23 patients who denied rectal bleeding but who were found at anoscopic and proctoscopic examinations to have gross blood in the rectum or friable tissues which bled easily. In addition, upon careful interrogation of 200 consecutive patients he found that 27 per cent of them did not look at the feces they passed.

Since the problem is so common and has such important implications, it was surmised that the subject had been well delineated in the literature, at least regarding any single disease entity if not the entire subject. Not only was there no specific treatise encompassing all of the known causes of colorectal bleeding, but for many of the diseases there was no data reflecting the incidence of bleeding. It was, therefore, deemed

desirable to condense the available recorded statistical data concerning the incidence of disease states producing colorectal bleeding, record the incidence of bleeding in each disorder and indicate those disorders which have no or insufficient data so that a comprehensive picture might be obtained of our present knowledge regarding colonic bleeding.

Method:

Initially all of the disorders recorded as etiologic factors underlying colonic bleeding were itemized. The current medical literature was then surveyed for a minimum of 10 years for data reflecting the incidence of each of these diseases and of the bleeding therein.

Colonic bleeding in the Pediatric Age Group:

Hodgson and Kennedy (32) reviewed 246 case histories of infants and children at the Mayo Clinic who had gastrointestinal complaints that might be associated with gross bleeding. Approximately 50 per cent of these case histories indicated that gastrointestinal bleeding had occurred. This incidence is seemingly high but is explained by the method of specific case selection. The results of the study are shown in Table I. It is to be noted that this study included the entire gastrointestinal tract but the pure colonic diseases, ulcerative colitis, colon polyps and carcinoma of the rectosigmoid accounted for greater than 50 per cent (135) of all the gastrointestinal bleeding disorders.

Table I

Causes of Bleeding in 246 Infants and Children

	Total	Under 2	2-6	7-15
Chronic ulcerative colitis	94	1	12	81
Polyps of colon	40	-	31	9
Cause undetermined	19	4	10	5
Meckel's diverticulum	17	6	8	3
Intussusception	17	14	3	-
Varices of esophagus	10	-	4	6
Duodenal ulcer	8	-	4	4
Blood dyscrasias	11	3	4	4
Mesenteric lymphadenitis	5	-	4	1
Volvulus	6	5	1	-
Regional enteritis	5	-	1	4
Jejunal polyps	1	-	-	1
Gastric ulcer	1	1	-	-
Gastroenteritis	2	1	1	-
Lymphosarcoma of ileum	1	-	-	1
Foreign body in esophagus	1	1	-	-
Meningitis	2	2	-	-
Hemorrhagic disease of the newborn	2	2	-	-
Carcinoma of rectosigmoid	1	-	-	1
Acute enteritis	2	-	2	-
Ileal band	1	1	-	-
Total	246	41	85	120

Kiewsewetter, et al (38) reported the diagnosis in 113 patients with rectal bleeding at Children's Hospital of Philadelphia. Their findings are shown in Table II. The single disease most frequently causing rectal bleeding in these patients was chronic recurrent sigmoid colon intussusception. Other studies (47) confirm that intussusception is the most frequent cause of such bleeding in children.

The remainder of this paper treats primarily the adult population.

Malignant Tumors of the Colon and Rectum:

A singularly important cause of lower gastrointestinal bleeding is the malignant tumor. Ottenheimer and Oughterson (48) reported a study by the Connecticut Tumor Registry for the years 1935 to 1949, concerning 46,929 patients. Sixteen and four-tenths per cent of these patients had carcinoma of the colon or rectum, the most common cancer among these patients. Phillips (50) reported figures from an insurance company in 1940 indicating that 160,000 persons died each year from cancer and that of these, 17 per cent had cancer of the colon or rectum. An over-all incidence of large bowel cancer of 89 per 100,000 population was found by Griswold (26) in 1950 in Connecticut and Turell (61) stated that 36,112 persons in the United States died of malignant neoplasms of the colon and rectum in 1955.

Table II

Causes of Rectal Bleeding in 113 Infants and Children

No diagnosis	26
Systemic disease (diarrhea 7, celiac 6, milk allergy 4, parasites 2, lymphoma 1, cirrhosis 1)	21
Chronic recurrent sigmoid intussusception	18
Intussusception	14
Polyp	8
Fissure-in-ano	8
Ulcerative colitis	5
Meckel's diverticulum	5
Volvulus	2
Fistula-in-ano	2
Rectal prolapse	2
Intestinal neoplasm	1
Hemorrhoids	1
Total	113

Table III, as compiled by the latter author, shows the number of malignant lesions in a group of 292 patients with tumors of the colon and rectum other than carcinoma.

As regards the bleeding incidense in these conditions, Turell concluded that occult blood in the stool should be detected in more than 90 per cent of patients with colorectal cancer.

Bockus (11) related the incidence of bleeding to location of tumors and noted that lesions of the right colon characteristically produced no visible blood, but one-fifth were associated with melena. In the left colon 25 per cent produced visible blood, and 85 to 90 per cent of those of the rectum produced visible blood.

Postlethwait, et al (51) reported a 25-year study of 1,023 patients with carcinoma of the colon and rectum and found the following incidence of melena; right colon, 31.6 per cent; left colon, 53.6 per cent; rectum and rectosigmoid, 80.6 per cent.

Sadler and McSwain (54) studied 251 patients with carcinomas of the colon, rectum, and anus and reported melena in 61.3 per cent of those from the ascending colon to the rectosigmoid, and in 93.6 per cent of those of the rectum.

Halpert, et al (27) reported on 150 patients with carcinoma of the sigmoid colon, rectum, or anal canal and found blood in the stool as follows: sigmoid, 69 per cent; rectosigmoid, 90 per cent; rectum, 88 per cent; anal canal, 78 per cent.

Table III

Malignant Lesions of Colon and Rectum
Other than Carcinoma in 292 Patients

	Colon	Rectum
Lymphosarcoma	18	19
Carcinoid	12	2
Leiomyosarcoma	4	8
Malignant melanoma	0	12
Hemangiopericytoma	2	1
Rhadomyosarcoma	1	1
Plasmocytoma	0	1
Total	37	44

Benign Tumors of the Colon and Rectum:

The incidence of benign tumors of the colon has been reported by many authors with a consensus that such growths are found in about 9 to 10 per cent of patients.

Bockus (11) stated that the most common benign tumors are the adenomatous polyp (over 50 per cent) and lipoma (about 20 per cent). Sauer (56) in his review of necropsy and proctoscopic findings, as shown in Tables IV and V, demonstrated an incidence of polyps of the colon and rectum of 5.16 per cent of patients (mean average), and noted that the incidence of polyps depends in large part upon the age of patients examined.

Enquist (20), in a very well planned serial study of 7,608 asymptomatic patients over 45 years of age, found one or more polyps in the rectum and/or colon in 11.5 per cent of patients on the first examination, and an additional 7.7 per cent on subsequent examinations, or a total of 19.2 per cent over a 6-year period. He reported a bleeding incidence (gross and occult) of 3.2 per cent in patients with colorectal polyps as compared with 1.7 per cent of patients without polyps. Patients in whom the polyps were either removed or disappeared had a bleeding incidence of 3.7 per cent, a figure higher than those with demonstrable polyps; this finding lead Enquist to question the validity of reports concerning polyps as a source of bleeding. However, if the polyp was above the area reached by a sigmoidoscope

Table IV

Incidence of Polyps of Colon and Rectum

	per cent
7000 Necropsies	2.37
1100 Necropsies	6.0
1850 Necropsies	4.19
1919 Proctoscopic exams	8.1
Mean Average	5.16

Table V

Variation of Colorectal Polyp Incidence with Age

	Per cent
30–39 Years old	4.2
40–49	8.2
50–59	10.1
60–69	10.3
70–79	15.1

12.5 per cent had bleeding; this was attributed to the fact that such polyps were usually larger.

Other investigators report a much higher incidence of bleeding from polyps. DeMuth, et al (18) found bleeding from colon polyps to be over 50 per cent and Bacon and Peale (4) noted a bleeding incidence of 70 per cent in 202 patients who had polyps demonstrated by sigmoidoscopy or x-ray study of the colon.

Other benign tumors of the colon and rectum which may result in bleeding and their relative incidence in a group of 292 patients is shown in Table VI (61). No information concerning the incidence of bleeding from these tumors was available.

Neoplasms Extrinsic to the Colon:

Jackman (33) stated that carcinoma of the prostate in the male and carcinoma of the ovary in the female were the neoplasms most likely to invade the lower intestine secondarily. The frequency of bleeding from these lesions was not reported.

Factitial Proctosigmoiditis:

Table VII shows the incidence of factitial proctosigmoiditis which develops in those patients treated with radiotherapy for pelvic lesions. The incidence varies with both the dosage of radiation administered and the length of time the patient is observed.

Table VI

Benign Tumors of Colon and Rectum in 292 Patients

	Colon	Rectum
Lymphoma	3	68
Lipoma	36	6
Carcinoid	0	35
Endometriosis	14	6
Leiomyoma	10	10
Hemangioma	4	3
Lymphangioma	1	3
Granular cell myoblastoma	1	3
Enterocystoma	3	1
Fibroma	1	0
Mesothelioma	1	0
Neurofibroma	1	0
Ganglioneuroma	1	0
Total	76	135

Table VII

Incidence of Factitial Proctosigmoiditis Among Patients Treated with Radiotherapy

Author	Per cent Incidence	Patients
Aldridge (1)	16.9	198
Bockus (11)	3.5	
Kaplan (37)	15.59	109
Buie and Malingren (13)	3.1	
Mean Average	9.89	

Randall and Buie (52) stated that bleeding from the rectum was the most frequent sign in patients with factitial proctosigmoiditis, but did not record figures. Kaplan, in his study of 109 such patients, reported that bleeding was the chief complaint in 27.42 per cent, and was present in 51.61 per cent of cases.

Endometriosis:

The incidence of endometriosis was 2.6 per cent in 31,663 female patients seen at the Ochsner Clinic (62); however, between the age of 30 and the menopause Sampson (55) found an incidence of 10-20 per cent. Table VIII shows the frequency in which there is involvement of the colon and rectum involved in this disease.

Jenkinson and Brown (35) stated that gross or occult blood in the stool was "infrequent" among their patients, but Thierstein and Allen (60) found blood in the stools of 2 of 41 patients with rectal lesions (4.9 per cent) and no blood in the stools of 12 patients with lesions proximal to the rectum. Other investigators did not record an incidence of bleeding in this disease.

Diverticulitis and Diverticulosis:

Diverticulosis is present in 20-25 per cent of all adults and 33 per cent of these cases result in diverticulitis (8).

Table VIII

Frequency of Colorectal Involvement in Endometriosis

Author	No. Patients	Per cent
Thierstein and Allen (60)	317	16.7
Kratzer and Salvati (40)	225	34.2
Jenkinson and Brown (35)	117	40.0
Mean Average		

The incidence of bleeding as reported by Hoar and Bernhard (31) in 247 cases of diverticulitis and diverticulosis was 37 and 16 per cent respectively. In 111 cases of diverticulitis they found occult bleeding in 31 (27 per cent), visible bleeding in 9 (8.1 per cent), and massive bleeding in 2 (1.8 per cent). Of the 236 cases with diverticulosis occult blood was present in 21 (9 per cent)and visible blood in 18 (7.6 per cent). Four additional cases had a massive hemorrhage.

Patterson (49) found 15 per cent of 434 cases of diverticulitis to have passed blood per rectum and Noer (46), in 2,896 cases found an 11.2 per cent incidence of gross bleeding.

Ulcerative Colitis:

Ulcerative colitis has been reported to be about 0.5 per cent of hospital admissions (58) and 0.9 per cent of private patients with digestive troubles (36).

Massive bleeding occurs in approximately 3 per cent, but low grade bleeding occurs in nearly every case of active disease (61). Sloan, et al (57) reviewed 2,000 cases at the Mayo Clinic and reported massive hemorrhage in 22 (1.1 per cent) and Bargen, et al (9) more recently found massive bleeding in about 0.5 per cent of cases. In 245 cases of ulcerative colitis observed at the Beth Israel Hospital, Boston, Mass., for an average period of 12.1 years, blood in the stools was "noted" in 208 patients (85 per cent); blood was found in an additional 16

(6.5 per cent) at sigmoidoscopy; massive hemorrhage was present in 12 (4.9 per cent); and 21 patients (8.6 per cent) had no indication of bleeding at any time (7). Kirsner, et al (39) reported that in 100 patients the symptoms usually included bloody diarrhea but severe bleeding from the bowel was present in only 12 per cent.

Parasitosis:

The incidence of intestinal parasitosis in the United States varies with the population surveyed. Dos Santos (19) studied 5,955 stool specimens from 3,674 patients plus 296 scotch tape preparations from 258 patients at the Medical College of Virginia. He found 6.6 per cent of the patients to have intestinal parasites, plus an additional 1 per cent with multiple infections. (Table IX) In 222 consecutive unselected patients without diarrhea as a predominant symptom, Neumann, et al (45) found 22.1 per cent had findings indicative of 1 or more parasites. (Table X)

Studies citing the general incidence of bleeding from the colorectal parasites were not found, although Neumann, et al (referred to above)reported that of 21 patients with amebiasis gross bleeding was present in 4 (19 per cent) and occult bleeding in 14 (66 per cent).

Bacillary Dysentery:

An incidence of 32.4 cases of bacillary dysentery per 100,000 population in 38 states was reported by Burrows (14)

Table IX

Intestinal Parasitosis in 3,932 Patients
at Medical College of Virginia

	Per cent Positive Specimens
Protozoa:	
Endamoeba histolytica	1.1
Endamoeba coli	42.0
Endolimax nana	12.0
Trichomonas hominus	2.7
Endamoeba butschlii	0.5
Giardia lamblia	40.0
Helminths:	
Ascaris lumbricoides	46.0
Enterobius vermicularis	19.0
Trichuris trichiura	20.0
Necator americanus	5.4
Strongyloides stercoralis	6.1
Trichostrongylus orientalis	0.8
Heterodera radicola	0.8
Taenia saginata	0.8

Table X

Intestinal Parasitosis in 222 Patients in Brooklyn, New York

	No. Positive Patients
Protozoa:	
Endamoeba histolytica	21
Endamoeba coli	13
Diendamoeba fragilis	17
Iodamoeba butschlii	2
Giardia lamblia	9
Trichimonas intestinalis	1
Chilomastrix mesnili	1
Helminths:	
Ascaris lumbricoides	2
Trichuris trichiura	6
Strongyloides Stercoralis	3
Necator americanus	4
Enterobius vermicularis	1
Dicrocoelium dentriticum	1

in 1945, with a 9:1 ratio of carriers to active cases. While hematochezia has been reported in such conditions the incidence of bleeding has never been accurately determined.

Typhoid Fever:

The terminal ileum is the commonest site of pathological involvement by the typhoid bacillus, but small ulcers are not infrequently found in the colon (2). Occult blood is usually present in the feces from the second to the fourth week of disease (29), but gross bleeding occurs in only 20 per cent of cases (29), and massive hemorrhage in 5-10 per cent (2).

Uremia:

A careful study concerning gastrointestinal lesions associated with uremia was made by Mason (43). The incidence of bleeding (Table XI) was 21.1 per cent of 265 cases in which the BUN was greater than 200 mg. per cent, but unfortunately bleeding from high in the gastrointestinal tract was not differentiated from that in the colon.

Hemorrhoids:

Hemorrhoids are a common cause of rectal bleeding, but other than a report (17) reflecting an incidence of 0.95 per cent of over half a million hospital patients, no data was available concerning disease or bleeding incidence.

Table XI

Gastrointestinal Changes in 265 Uremic Patients

	Per cent Patients
Edema and congestion	18.9
Mild hemorrhage	3.8
Moderate hemorrhage	9.8
Marked hemorrhage	7.5
Ulcerative and necrotic lesions	19.6
No changes	40.3
Hemorrhage, Mean Average	21.1

Leukemias:

The leukemias cause lower intestinal bleeding (63) but the incidence of such bleeding is not reflected in the literature. The incidence of leukemia has been cited as 5.8 (23) to 6.3 (63) per 100,000 population in the United States (years 1949-1952).

Obstructive Jaundice:

Obstructive jaundice is associated with colon bleeding (11), and reportedly one-third of patients with obstructive jaundice who bleed do so into the gastrointestinal tract (59). Further data concerning the incidence of such jaundice and bleeding were not recorded in the literature.

Diseases of Rare Incidence or Diseases Rarely Causing Colon Bleeding:

The true incidence of hemophilia probably is not know (59)but Deardorff (17) found 94 cases among 576,623 (0.01 per cent) hospital patients. One-third of hemophiliacs were reported by Sturgis (59) as having hematemesis or bleeding from the rectum (59). No other data on colon bleeding incidence was found.

Wintrobe (63) mentioned that the colorectal bleeding occurs in hemorrhagic disease of the newborn but averred that the disease is now seldom seen because of the use of Vitamin K prophylactic-al ly. According to Sturgis (59) the disease is present in about 0.5 per cent of all infants. Bleeding incidence was not reflected in the literature of the past 10 years.

A population incidence of Henoch-Schonlein purpura was not reported. As a cause of colorectal bleeding, Gairdner (22) noted that 8 of 12 patients (66 per cent) had blood in the stools although the site of bleeding was not established.

By 1932, 600 cases of hereditary hemorrhagic telangiectasia were recorded in the literature (24), and by 1953 the total reported cases had grown to over 1,400 (6). Baker (6) found blood in the stools of 5 of 12 patients (41 per cent) and Griggs and Baker found occult blood in the stools of 2 of 3 patients; in neither report was the site of bleeding definitely established.

The incidence of Hodgkin's disease has been estimated at about 0.05 per 10,000 population (59). This disease causes lower intestinal bleeding, but the loss of blood from the bowel reportedly is quite uncommon (59).

Colon bleeding in infectious mononucleosis has been mentioned (63) and the disease has been referred to as "exceedingly common" (59), but data reflecting the over-all disease or bleeding incidence were not available. Read and Helwig (53) reviewed 300 cases concerning symptoms and findings but reported no colorectal bleeding.

Colon and hemorrhage occurs in polycythemia vera (63)(30), but figures concerning the incidence were not recorded.

By 1956, 199 cases of Von Willebrand's Disease had been reported, and in reviewing the case histories of all these patients Buchanan and Leavell (12) found evidence of lower intestinal hemorrhage in 10 (almost 5 per cent).

The incidence of multiple myeloma has been reported as 14.1 per million population (42). Hampton and Gandy (28) found 182 cases with extramedullary involvement; of these, 4 had colon lesions and 2 rectal lesions (total colorectal involvement: 3.3 per cent); of these 6, one had bleeding from the lesion. These figures indicate a bleeding incidence of 16.6 per cent of patients with colorectal lesions and of 0.5 per cent of patients with extramedullary involvement.

Rectal prolapse, a known cause of bleeding (5)(61), was listed as a diagnosis in 0.04 per cent of 576,623 hospital patients (17), but other statistics were not found in the current literature.

The only reference possibly relating to the incidence of purpura hemorrhagica was the listing of "idiopathic hemorrhagic purpura" as occurring in 0.4 per cent of a large group of hospital patients (17). Though this disease produces colon bleeding (63), the incidence of such is not recorded.

Other Colorectal Lesions:

The diseases listed in Table XII are causes of colorectal bleeding; however, despite a review of the literature of the

Table XII

Causes of Colorectal Bleeding:
Disease and Bleeding Incidence Not
Recorded in Current Literature

Gastrointestinal allergy (11)(3)
Nephritis (11)
Fecal impaction (11)
Trauma (11)
Foreign bodies (11)
Strangulating obstruction (61)
Pectinosis (61)
Reduplication of the colon (61)
Varices of the cecum and ascending colon (41)
Puetz-Jeghers syndrome (36)
Drug poisoning (15)
Fungal colitis (15)
Spastic colitis (15)
Amyloidosis (10)(44)
Staphylococcal food poisoning (11)

past 10 years the disease incidence and incidence of bleeding in these disorders could not be found.

Discussion:

The passage of blood per rectum is probably the most common sign of colon disorders, yet there has never been a study made regarding its population incidence. Similarly, there has not been a report recording the incidence of colon bleeding in the various colonic disorders which may result in bleeding. A major problem encountered in attempting to correct this deficiency in the literature was the lack of standard criteria to describe the bleeding state as regards its appearance in the stool, rate, amount, and anatomical source.

Forty-one etiologic factors are cited as causes of rectal bleeding. Tables XIII, XIV, XV and XVI summarize these entities by listing in decreasing frequency the incidence of each such disorder in the population and the frequency of bleeding in each disease state respectively. In listing the diseases in order of incidence, those for which the data reflects general population, or next best, patient population incidence are given in order first; data concerning restricted populations are ordered next; and finally those without reported incidence are listed unordered. The bleeding incidence is similarly treated.

Based on disease incidence and bleeding frequency data now available in the literature, diverticulosis and diverticulitis are statistically the most frequent causes of colorectal bleeding.

The most salient fact brought out by these tables is that data are not available for comparison of either the disease entities or the bleeding incidence, for example, general knowledge indicates hemorrhoids are more common than ulcerative colitis, but this can not be established factually from the literature.

Correlation of the data in Tables XIII, XIV, XV and XVI for the purpose of determining the likelihood of a disease in a given patient with rectal bleeding was not possible for the following reasons: 1. For comparison, disease incidence must be known in each case for like statistical populations. 2. For comparative purposes, standard nomenclature regarding description, rate of bleeding, and source is necessary; such criteria are not in use.

Inasmuch as the present review has indicated these inadequacies and has not been able to correct the literature deficiency, the following protocol is proposed as a means of study of the colon bleeding problem.

Table XIII

Colorectal Lesions Associated with Rectal Bleeding:
in Decreasing Order of Recorded Disease Incidence

Disease	Per cent Population	
Diverticulosis	20–25	
Parasitosis	7–22	
Polyps	5–19	
Diverticulitis	6– 8	
Endometriosis	2.6–20	
Ulcerative colitis	0.5–0.9	
Carcinoma	0.08	
Leukemia	0.06	
Bacillary dysentery	0.03	
Hemorrhoids	0.95	(H)
Purpura hemorrhagica	0.4	(H)
Rectal prolapse	0.04	(H)
Hemophilia	0.01	(H)
Multiple myeloma	0.0014	
Hodgkin's disease	0.0005	
Hemorrhagic disease of newborn	0.5	(I)
Factitial proctosigmoiditis	10	(T)
Hereditary hemorrhagic telangiectasia	1400	(A)
Von Willebrand's disease	199	(A)

Symbols: H – Hospital patients; I – Infants; T – Treated patients; A – All reported cases

Table XIV

Colorectal Lesions Associated with Rectal Bleeding:
No Disease Incidence Reported

Disease
Gastrointestinal allergy
Nephritis
Fecal impaction
Trauma
Foreign body
Strangulating obstruction
Pectinosis
Reduplication of colon
Varices of cecum and ascending colon
Peutz-Jeghers syndrome
Drug poisoning
Fungal colitis
Spastic colitis
Amyloidosis
Staphylococcal food poisoning
Polycythemia vera
Obstructive jaundice
Infectious mononucleosis
Henoch-Schonlein purpura
Uremia
Typhoid fever
Intussusception

Table XV

Colorectal Lesions Associated with Rectal Bleeding: in Decreasing Order of Recorded Bleeding Incidence

Disease	Per cent Patients with Bleeding	
Carcinoma	32-93	
Ulcerative colitis	91	
Polyps	3-70	
Factitial proctosigmoiditis	52	
Diverticulitis	37	
Diverticulosis	16	
Von Willebrand's disease	5	
Endometriosis	5	
Typhoid fever	Usually	(G)
Henoch-Schonlein purpura	66	(G)
Hereditary hemorrhagic telangiectasia	41-66	(G)
Hemophilia	33	(G)
Uremia	21	(G)

Symbol: G - Gastrointestinal site not specified.

Table XVI

Colorectal Lesions Associated with Rectal Bleeding:
No Bleeding Incidence Reported

Disease
Gastrointestinal allergy
Nephritis
Fecal impaction
Trauma
Foreign body
Strangulating obstruction
Pectinosis
Reduplication of colon
Varices of cecum and ascending colon
Peutz-Jeghers syndrome
Drug poisoning
Fungal colitis
Spastic colitis
Amyloidosis
Staphylococcal food poisoning
Intussusception
Hemorrhoids
Hemorrhagic disease of newborn
Parasitosis
Bacillary dysentery
Hodgkin's disease
Infectious mononucleosis
Leukemia
Obstructive jaundice
Polycythemia vera
Multiple myeloma
Rectal Prolapse
Purpura hemorrhagica

Conclusions:

1. Colorectal bleeding is a common problem, but its incidence in the general population is not known.

2. Over 40 causes of such bleeding are now recorded in the literature.

3. The incidence of bleeding in many of these diseases is unknown.

4. There are no definitive criteria for the investigation and reporting of colorectal bleeding.

5. Diverticulosis and diverticulitis are the most frequent causes of colorectal bleeding.

6. A method for the accurate evaluation of the colorectal bleeding problem is proposed. (Table XVII).

Conclusions:

1. Colorectal bleeding is a common problem, but its incidence in the general population is not known.

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6. A method for the accurate evaluation of the colorectal bleeding problem is proposed. (Table XVII).

Table XVII

Name _____ Age _____ Sex _____ Race _____

Address _____

Hospital chart number_____ In-patient____ Out-patient____

Diagnosis

Method of Finding Blood in the Feces:

History_____ Duration

Stool sample _____ Feces from digital rectal exam _____

Physician's Observation: _____

Anoscopy ____ Sigmoidoscopy_____

Laboratory: (Occult blood)

3-Day meat free diet _____

Appearance of Feces:

Brown_____ Dark Brown ____ Black ____ Cherry Red ____ Bright_____

Blood streaked surface ____ Blood streaked mixed _____

Diffuse blood mixed_____

Consistency and Shape of Feces:

Firm ____ Hard ____ Soft ____ Liquid ____ Sausage ____

Scybalous ____ Semiliquid

_____Amount of Bleeding:

HB ____ RBC _____WBC----- Hematocrit _____

Blood volume _____

Blood replacement _____

Rate of Bleeding:

BP _____ P _____ Clinical shock _____

Blood replacement per 24 hours _____

Pertinent Adjunctive:

Prothrombin time ____ Platelets ____ Coag. time ____

Bleeding time ____

Laboratory Data:

BUN ____ Urinalysis ____ Other ____

Method of Establishing Diagnosis:

Digital exam ____ Anoscopy ____ Sigmoidoscopy ____

Exploratory laparotomy __ Histology ____

Stool exam for ova and parasites ____

X-ray Colon:

Barium filled ____ Air contrast ____

Culture:

Stool ____ Blood ____ Urine ____ Blood serology ____

Location Bleeding Site:

Right colon _____

Transverse colon - Proximal ____ Distal ----

Left colon _____

Sigmoid colon _____

Rectum _____

Anus _____

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