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Research Article

Gastrointestinal Bleeding within El Sahel Hospital Cases in Egypt -

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ABSTRACT

Background: Lower gastrointestinal bleeding originates from a location distal to the ligament of Treitz. It could clinically present as an acute life-threatening bleeding episode or chronic form of bleeding. It is common within older age groups and those with comorbid chronic medical disorders. The common etiologies involve the following diverticular disease, angiodysplasias, tumors, colonic inflammation, ischemic and anorectal diseases.

Aim: The current research study is to assess the prevalence and etiologies of acute lower gastrointestinal bleeding within el Sahel hospital cases.

Methodology: Over a period of 2 years we investigated 300 cases clinically presented with fresh attack of rectal bleeding. This is an observational hospital based clinical trial. All cases with fresh rectal bleeding within 24 h were recruited and an informed consent form obtained.

Result: The mean age of cases was 55.5 ± 17.8 yrs, male: female ratio was 3:1. The most chief etiology (if upper gastrointestinal bleeding is excluded) was diverticular disease 40% (n = 120) followed by piles 24% (n = 72), colonic tumors 12% (n = 36), ulcerative colitis 5% (n = 15), Crohn's 6% (n = 18), colonic polyps 3% (n = 9), angiodysplasia 4% (n = 12), colonic ulcer 2% (n = 6), ischemic colitis 1% (n = 3), nonspecific colitis 1% (n = 3), and small bowel source in 1% (n = 3). The majority of those cases were diagnosed with colonic diverticular disease have been males and with first presentation. The commonest cause in those cases younger than 25 years was polyps, and in those between 26 and 45 was piles followed in frequency by inflammatory bowel diseases, and in those between 46 and 60 years old was piles followed by colonic diverticular disease and neoplasms, and in those above 65 years was colonic diverticular disease followed by piles and neoplasms. The correlation between positive colonoscopy lesion and (Diabetes Mellitus) DM and the usage of (Nonsteroidal anti-inflammatory drugs) NSAID was statistically significant. The one-month mortality rate was 3.4%

Conclusion: Acute lower gastrointestinal bleeding is widespread within elderly cases the chief etiology is colonic diverticular disease. Colonoscopy is the gold standard investigative tool for clinical diagnosis. Most cases resolve adequately to conservative management protocols.

INTRODUCTION

Lower GIT bleeding is clinically described as bleeding existing from a zone distal to the ligament of Treitz and is frequently suspected when cases present with hematochezia, even though various research groups describe lower GIT bleeding as bleeding from a colonic origin only and any bleeding from the small intestine is displayed to be a separate category [1]. Lower GIT bleeding could clinically present as an acute and life-threatening clinical scenario or as chronic intermittent form of bleeding, which could present to the physician as iron-deficiency type of anemia, faecal occult blood. Acute lower gastrointestinal bleeding is a common gastrointestinal etiology of hospital admission especially in the old age group, and its frequency appears to be increasing [2]. In around 15% of patients suffering acute form of lower GIT bleeding and the incidence increases with age advancement and comorbid medical diseases, and the revealing of the site and cause of bleeding could be challenging. There are various factors which could add to raised mortality e.g. a severe clinical course of bleeding and intermittent form of bleeding in addition to older age, comorbid medical disorders, intestinal ischemic insults, and hemodynamic instability [3].

There are various etiologies for lower GIT bleeding, but chief etiologies are diverticulosis, angiodysplasias, neoplasms, colitis, ischemia, anorectal disorders, and post polypectomy [4]. Acute Lower GIT Bleeding clinically presents as a more multifaceted diagnostic and therapeutic clinical scenario than upper gastrointestinal bleeding presentation and it is usually less severe than upper GIT bleeding. Colonoscopy stays the cornerstone investigative tool for diagnosis and management for acute life-threatening lower GIT bleeding [5]. For Lower GIT Bleeding pathologically observed lesions which are suitable to endoscopic management, the appropriate hemostatic tool selection frequently results in a resolved clinical outcome. The bulk of Acute lower GIT bleeding case scenarios clinically resolve in a spontaneous manner with no unfavorable outcome (around 85% of cases) and mortality is unusual (around 3% of cases) [6].

Aim

The current research study aims to investigate the prevalence and etiologies of acute lower GIT bleeding among cases presenting to El Sahel Hospital.

METHODOLOGY

The current research team investigated 300 case with fresh bleeding per rectum out of 1500 cases with gastrointestinal bleeding who came to El Sahel Hospital Shobra, Cairo, Egypt. The research is a Clinical observational trial and was conducted within a period of two years (2016-2018).

The research team described and categorized lower GIT bleeding as bleeding occurring in a distal region to the ligament of Treitz, acute form of lower GIT bleeding table 1 existing within 24 h and requiring more than 4 units of blood product transfusion and/or hemodynamic instability case presented despite adequate initial resuscitative efforts.

The research methodology inclusive criteria recruited all cases with acute fresh bleeding per rectum within 24 h of clinical presentation and exclusive research criteria involved cases that had bleeding per rectum more than 24 h or refused to participate in the research clinical trial. The research team noted age, gender, frequency

Table 1: Tumor location within cases with lower GIT bleeding.

Type	Percentage
Anal	12
Rectal	54
Sigmoid	23
Transverse	8
Caecal	4
Total	100

Table 1 shows that most cases had rectal tumors representing 54% of cases followed by sigmoid colon tumors representing 23% of cases.

and bleeding quantity, coexisting factors, comorbid medical disorders, blood loss symptoms or malignant neoplasms, familial history, malignancy history, medications history, habits of medical importance e.g. smoking.

The ethical committee of El Sahel Hospital approved the research study. All cases were admitted, resuscitated, monitored, and undergone upper GIT endoscopy and colonoscopy within 24 h of hospital admission.

A written consent form was obtained, research data was gathered and statistically analyzed. Statistical analysis was conducted using SPSS version 13 software. Frequencies and proportions were implemented to display cases demographic research data. Research variables non-normally distributed e.g. age have been described using mean, and nonparametric statistical tests for variabilities.

Statistical analysis for difference in proportions have been conducted by usage of Chi-square or Fisher exact tests, and risk displayed by Odds Ratio (OR) with 95% Confidence Intervals (CI) where suitable. Statistical correlation was conducted with the Spearman rho, assuming a nonparametric data distribution. All tests were 2-tailed and statistically significant was considered as *p* value < 0.05.

DISCUSSION

The incidence of lower GIT bleeding rises with age advancement and is more frequent in males than females and is more frequent than acute upper GIT bleeding in the old age group. In UK, the prevalence increases from around 5% of individuals in the forty's to about 50% of individuals above the 80 years of age. There is a global variability in the etiologies of lower GIT bleeding e.g. in Western region of European community and the USA colonic diverticular disease is one of the chief causes of lower GIT bleeding. In Asian communities, on the other hand, colonic diverticular disease is not widespread and is a less frequent etiology of lower GIT bleeding. In African individuals colonic diverticular disease is displayed as a rare clinical issue but considered an increasing clinical scenario within Urban African communities where 26 cases were recorded in a 5 year retrospective research study, giving a hospital based prevalence of 5 per 100,000 admissions and implied that it could be due to the western diet pattern, particularly low dietary fiber content which raises the clinical risk of diverticular disease development [7-9].

The colonic cause of lower GIT bleeding in order of declining frequency is colonic diverticular disease, inflammatory bowel disorders, ischemic and infectious colonic inflammation, colonic tumors, benign anorectal disorders, and arteriovenous vascular malformations and around 10 to 15 percent of all patients suffering bleeding per rectum are caused by a lesion that is proximal to the ligament of Treitz. In a prior research study involving 165 cases evaluated for Lower GIT bleeding, 150 cases (91%) undergone colonoscopy. Colonic diverticulosis was diagnosed as the source of bleeding in 56% of cases, colonic ulcers in 10% of presented cases, carcinoma in 7%, and vascular malformations in 5%. The re-bleeding rate in this cohort was 20%, and surgical therapy for bleeding was needed in 10% and the mortality rate for lower GIT bleeding was 4% [10,11].

In the current research study due to the short follow up period recurrence of bleeding existed in only two cases with colonic diverticulosis and one-month mortality rate was 3%. Comorbid medical disorders were more frequent in the old age group are

correlated with raised incidence and severity of lower GIT bleeding e.g. cardiovascular illnesses, hepatic cirrhosis, renal disorders, DM, and malignancy, additionally the raised usage of anticoagulants and NSAIDS. In the current research study there was a statistically significant correlation between positive colonoscopy observations and usage of NSAIDS and DM.

Identification of the origin of bleeding in some clinical scenarios could be difficult. Colonoscopy is considered as the primary investigation tool of golden standard [12].

When conducted within 24 h of hospitalization it provides more precise diagnosis than when conducted in an elective manner. It offers numerous management advantages since various bleeding sources could be identified and bleeding severity could be evaluated by colonoscopy. Endoscopic hemostasis could be achieved in addition to prevention of recurrence of bleeding attack by colonoscopy performance therefore contributing to the potential of improving crucial clinical outcomes, however obtained research data from small studies are contrasting. The requirement of preparing the bowel, the practical difficulty in conducting the procedure in some situations within hours and the uncommon recognition of the site of hemorrhage discourage the extensive usage and practice of urgent colonoscopy in lower GIT bleeding table 2 clinical scenarios [13].

On the other hand, the majority of these challenges in addition apply to other investigative modes e.g. angiography and radionuclide scanning. Even though urgent conductance of colonoscopy recognized a specific origin of lower GIT bleeding more frequent than an algorithm relying on angiography and elective colonoscopy practice, the investigative protocols are not statistically significantly variable about to crucial clinical outcomes. Therefore, clinical decisions as regards care for cases with acute lower GIT bleeding is supposed to be dependent on local experience [14].

Recently in practice, clinicians chiefly depend on nonsurgical control of hemorrhage by means of endoscopy or angiography; the surgical intervention is restricted to acute, uncontrollable, and recurrent forms of bleeding. In clinical scenarios requiring surgical intervention, segmental resection and anastomosis of intestine is recommended after recognition of the site of lesion; if the location of colonic bleeding is uncertain, subtotal resection is the management of choice. For hemodynamically stable cases with unsure small

Table 2: Displays colonoscopy pathological finding during the attack of lower GIT bleeding.

pathology	frequency	percent
Polyps	9	3
Ulcers	6	2
Colonic diverticular disease	120	40
Tumors	36	12
Chrons	18	6
Ulcerative colitis	15	5
Ischemic colon	3	1
piles		72
angiodysplasia		12
total		300
		100

Table 2 shows that most cases have shown diverticular disease (40%), and piles (24%).

intestinal bleeding some authors advise regular re-assessment. On the other hand in another research study a statistical significant percentage of cases (30%) undergone therapeutic intervention (angiographic embolization, colonoscopy-based management or Surgical intervention) to control severe/recurrent forms of bleeding, but in spite of intervention rebleeding attack existed in a frequency of about 20% within the first year [5,7,10].

CONCLUSION

We conclude that acute lower GIT bleeding is common within old cases and the commonest etiology is colonic diverticulosis. Colonoscopy has a cornerstone role in diagnosis and most cases responding to conservative management protocol. Surgery is reserved for cases that have massive forms of bleeding with coexisting comorbid medical disorder.

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