

Prevalence of Endoscopy at Idris Teaching Hospital Sialkot Medical College, Sialkot

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ABSTRACT

Objective: To study Prevalence of Endoscopy At Idris Teaching Hospital Sialkot Medical College Sialkot.

Study Design: Experimental and Observational study

Place and Duration of Study: This study was conducted at Idris Teaching Hospital Sialkot during Jan 2018 to July 2019.

Materials and Methods: This study comprises 1021 patients undergoing endoscopic examination. The demographic data was noted down and lab tests were also advised for example hepatitis A, B and C HIV. Written informed consent was also taken from every patient before the start of the endoscopic examination. The Permission of ethical committee was also considered before collection of data and get publishing in the medical journal. The results were analyzed on SPSS version 10.

Results: Mean Age was 45.34 years and SD(standard deviation) was 16.23 years. At the age of 10-20 years, there were 50(10.18%) male and 51(9.62%) female of endoscopy were included in this study. At the age of 21-30 years there were 101(20.57%) male and 85(16.04%) females. At the age of 31-40 years there were 100(20.36%) male and 75(14.15%) female, At the age of 41-50 years there were 101(20.57%) male and 130(24.52%) female, at the age of 51-60 years there were 25(5.09%) Male and 75(14.15%) female, At the age of 61-70 years there were 75 (15.27%) male and 85(16.04%) female, at the age 70 years and above there were 35(7.12%) Male and 29(5.47%) females patients were included in the study. It was observed that female patients of endoscopy were more prevalence than male patients. It was observed that there were 175(35.64%) Male and 201(37.92%) female patients at the high socioeconomic status, in the middle socio economics status there were 187(38.10%) Male and 210(39.62%) female, in the low socio economic status there were 129(26.27%) Male and 119(22.45%) female patients of endoscopy were found in this study. It was observed that there were more patients of endoscopy in middle class than high gentry and lower class. From urban area, there were 230(46.84%) Male and 300(56.61%) female and from rural area 261(53.15%) male and 230(43.40%) female patients of endoscopy were observed in this study. It was also observed there was more prevalence of endoscopy patients from rural area than urban area.

Conclusion: Esophagogastroduodenoscopy is the only reliable tool for correctly determining the etiology of UGIB. We observed esophageal varices as the main cause of UGIB in our setup which is similar to those in local literature but different from those in western literature. Predominance of varices as a cause of acute UGIB reflects high prevalence of CLD due to viral hepatitis.

Key Words: Endoscopy, Hepatitis A, B and C, HIV, Demographic data

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INTRODUCTION

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“Acute upper gastrointestinal bleeding (UGIB) is a life threatening condition that results in 250,000-300,000 hospitalizations and 15000-30000 deaths/year in USA¹. Patients with UGIB presents with hematemesis, melena or hematochezia^{2,3}. “The occurrence of UGIB in all age groups is twofold higher in men than women; nevertheless the fatality rate is identical in both gender⁴. “The epidemiology of various causes of UGIB is changing in recent years. With the beginning of 20th century, peptic ulcer disease (PUD) rose in frequency to become one of the most common causes of UGIB.” “In Pakistan, the incidence of UGIB due to PUD is nearly half as compared with esophageal varices, resulting from liver cirrhosis due to HBV and HCV⁵”. “Varices are identified in 30% cases of compensated Liver cirrhosis and 60% with decompensated cirrhosis⁶”. “Upper gastrointestinal endoscopy (UGIE) is a diagnostic modality of choice for acute UGIB as it permits early detection and prognostic evaluation of

source of hemorrhage". "UGIE should be performed urgently in patients with hemodynamic instability and high risk endoscopic findings (varices, ulcer with active bleeding or a visible vessel) who benefit from endoscopic hemostatic therapy^{7,8}." "The prognostic knowledge gained from the procedure can considerably lessen the use of health resources even if the lesion is not amenable to particular endoscopic treatment⁹". "American society of gastrointestinal endoscopy (ASGE) described several danger signs which are linked with higher mortality such as recurring bleeding, requirement for endoscopic hemostasis or surgery, age over 60, severe co-morbidity, active bleeding, hypotension, RBC transfusion equal to or greater than 6 units and severe coagulopathy⁴. Risk assessment in patients with acute UGIB depends on degree of hemorrhage and general health of the patient¹⁰. By utilizing clinical variables, various scoring tools have been prepared to assist the triage of patients suffering from acute UGIB, identifying individuals who require urgent endoscopic assessment, forecasts the risk of unfavorable outcome and help in guiding treatment¹¹". "The top risk evaluation tool is Rockall score derived from a large review of patients who were treated for acute UGIB in England¹¹." "The Rockall scoring system utilizes clinical features and endoscopy to spot patients at risk of adversative outcome following acute UGIB. The range of score is 0-11 points for total score and 0-7 for clinical score. Patients with total score of less than 2 following endoscopy are classified as low risk." "Patients having clinical score of zero prior to endoscopy are regarded to be at less risk¹²". "Another useful risk assessment tool is Blatchford scoring system (BSS). It is very valuable for differentiating among high and low risk group of patients suffering from UGIB, prior to endoscopy¹³. It utilizes only clinical and laboratory features and has no endoscopic factor. The BSS varies from 0-23, the majority of patients having score of six and above require intervention¹⁴ Upper gastrointestinal endoscopy is an effective initial diagnostic modality for locating site and cause of the bleeding. As bleeding esophageal varices stays the most frequent source of hematemesis in our society due to high prevalence of hepatitis B & hepatitis C, we undertook this study to evaluate different causes of acute upper G.I. bleeding endoscopically. Ejected to detailed history taking and physical examination." "Data such as age, sex & clinical presentations were recorded. Patients were asked about bleeding (hematemesis, malena or both), history of drugs linked with UGIB (NSAIDs, steroids, anticoagulants), dysphagia and history of peptic ulcer disease, hepatitis and coagulation disorders". "Presence of any underlying disease was also recorded. Each patient was then examined for signs of chronic Liver disease like pallor, Jaundice, palmer erythema and spider Nevei. Abdomen was examined for epigastric tenderness,

splenomegaly, ascites and caput medusae. Blood samples were withdrawn for full blood count, LFT, coagulation profile, HBsAg, anti HCV, anti helicobacter pylori antibodies". "Ultrasound of abdomen was also done in every patient. All patients were then undergone for UGIE, performed by a senior endoscopist having ≥ 05 years endoscopic skills experience. Olympus-XQ 30 video endoscope was used. Endoscopic findings were recorded and etiologies noted. All data entered in a prsoforma."

MATERIALS AND METHODS

This study comprises 1021 patients undergoing endoscopic examination. The demographic data was noted down and lab tests were also advised for example hepatitis A, B and C HIV. Written informed consent was also taken from every patient before the start of the endoscopic examination. The Permission of ethical committee was also considered before collection of data and get publishing in the medical journal. The results were analyzed on SPSS version 10.

RESULTS

Mean Age was 45.34 years and SD(standard deviation) was 16.23 years. At the age of 10-20years, there were 50(10.18%) male and 51(9.62%) female of endoscopy were included in this study. At the age of 21-30 years there were 101(20.57%) male and 85(16.04%) females. At the age of 31-40 years there were 100(20.36%) male and 75(14.15%) female, At the age of 41-50 years there were 101(20.57%) male and 130(24.52%) female, at the age of 51-60 years there were 25(5.09%)Male and 75(14.15%) female, At the age of 61-70 years there were 75 (15.27%) male and 85(16.04%) female, at the age 70 years and above there were 35(7.12%) Male and 29(5.47%) females patients were included in the study. It was observed that female patients of endoscopy were more prevalence than male patients as shown table 1.

Table No. 1: Age and Gender Distribution In endoscopic Examination Patients

Sr. No.	Age	Male	Female
1	10-20	50(10.18%)	51(9.62%)
2	21-30	101(20.57%)	85(16.04%)
3	31-40	100(20.36%)	75(14.15%)
4	41-50	101(20.57%)	130(24.52%)
5	51-60	25(5.09%)	75(14.15%)
6	61-70	75(15.27%)	85(16.04%)
7	70 and above	35(7.12%)	29(5.47%)
Total		491(100%)	530

It was observed that there were 175(35.64%) Male and 201(37.92%) female patients at the high socioeconomic status, in the middle socio economics status there were 187(38.10%) Male and 210(39.62%) female, in the low socio economic status there were 129(26.27%) Male

and 119(22.45%) female patients of endoscopy were found in this study. It was observed that there were more patients of endoscopy in middle class than high gentry and lower class as shown in table no 2.

Table No. 2: Socioeconomic Status Distribution in Endoscopic Patients

Sr. No.	Socio-economic Status	Male	Female
1	High	175(35.64%)	201(37.92%)
2	Middle	187(38.10%)	210(39.62%)
3	LOW	129(26.27%)	119(22.45%)
Total		491(100%)	530

From urban area, there were 230(46.84%) Male and 300(56.61%) female and from rural area 261(53.15%) male and 230(43.40%) female patients of endoscopy were observed in this study. It was also observed there was more prevalence of endoscopy patients from rural area than urban area as shown in table no 3.

Table No. 3: Area Distribution

Sr. No.	Area	Male	Female
1	Urban	230(46.84%)	300(56.61%)
2	Rural	261(53.15%)	230(43.40%)
Total		491(100%)	530(100%)

DISCUSSION

“Acute UGIB is frequent and life threatening situation and requires timely evaluation and adamant medical treatment to prevent adverse outcomes¹⁴. It has a multifactorial etiology that fluctuates broadly among various geographical regions of the world”. “The epidemiological study of these cases in Pakistan is yet to be organized. In the previous twenty years the introduction of state of art UGIE has noticeably enhanced the diagnostic and curative modalities in the treatment of UGIB⁹. Despite advances in early diagnosis and management of this common emergency, the case death rate remains unaffected to 7-10%. The reason behind this may possibly be that nowadays patients are older and have higher numbers of comorbidities as compared to the past¹⁴”. “No morbidity or mortality was reported in relation to endoscopic examination in our study”. “This study revealed varices as a cause in > 1/2 and PUD in 1/5th cases. In a study from Rawalpindi done in 2001 by Hussain T et al⁹, variceal bleed was the most common cause of UGIB (35.2%) followed by PUD (21.6%). Another study from Peshawar done in 2006 by Khan et al¹⁵, reported variceal bleed (45.7%) and PUD (31.4%) as the most common causes of UGIB. Gastro intestinal Endoscopic bleeding survey by ASGE on upper GIT involving 2225 patients revealed that 6 pathological entities were responsible for most bleeding episodes”. “These include duodenal ulcer, Gastric ulcer, acute gastritis,

variceal bleed, Esophagitis and Mallory Weiss tear”. “Survey on these 2225 patients revealed that PUD was the most common cause and varices were present in only 15.4% of cases^{16,17} compared to 54% in our study. The higher incidence of variceal bleed in our study is due to higher rate of chronic infection with HBV and HCV leading to end stage liver disease. Lower incidence of PUD as a cause of UGIB in this study could be because of frequent use of proton pump inhibitors (PPI) and H2 blockers by medical practitioners in patients with symptoms of dyspepsia¹⁸”. “Augmented number of patients with Esophagitis (10%), Gastro duodenal erosions (9%) and Mallory Weis tear (1%) in this study are due to gastro esophageal reflux disease (GERD) and use of NSAIDs. NSAIDs are a main reason of morbidity and mortality resulting in deaths of 1200 patients / year in UK¹⁹”.

CONCLUSION

Esophagogastroduodenoscopy is the only reliable tool for correctly determining the etiology of UGIB. We observed esophageal varices as the main cause of UGIB in our setup which is similar to those in local literature but different from those in western literature. Predominance of varices as a cause of acute UGIB reflects high prevalence of CLD due to viral hepatitis.

Author's Contribution:

Concept & Design of Study: Brig Shahid Raza
 Drafting: Asif Javed
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 Revisiting Critically: Brig Shahid Raza, Asif Javed
 Final Approval of version: Brig Shahid Raza

Conflict of Interest: The study has no conflict of interest to declare by any author.

REFERENCES

1. Imperiale TF, Dominitz JA, Provenzale DT, Boes LP, Rose CM, Bowers JC, et al. Predicting poor outcome from acute upper gastrointestinal hemorrhage. *Arch Int Med* 2007; 167(12):1291-6.
2. Laine L. gastrointestinal bleeding. In: Kasper, Braunwald, Longo, Jameson, editors. *Harrison's principles of internal medicine*. 16th ed. Newyork: Mcgraw Hill; 2005.p.1864-5.
3. Mcquaid KR. Gastrointestinal bleeding. *Current medical diagnosis and treatment*. Newyork: Mcgraw Hill; 2014.p.14:587.
4. Cerulli MA. Upper Gastrointestinal Bleeding. *Medscape* [Internet]. Available from: URL: <http://emedicine.medscape.com/article/187857>
5. Hussain I. Association of NSAID intake with upper GI bleeding in patients with cirrhosis of Liver and portal hypertension. *Researchgate* 2003; 17:9.

6. Khurram M, Khaar HB, Javed S, Hasan Z, Arshad M, Goraya MF, et al. Upper GI endoscopic evaluation of 299 patients with clinically compensated cirrhosis. *Pak J Gastroenterol* 2003;17 (1):12-6.
7. Bilal A, Nagra H, Shahid M. Upper GIT bleeding; Prevalence of peptic ulcer. *The Professional Med J* 2004;11(4):400-5.
8. Hussain T, Mirza S, Sabir S. Aetiology and outcome of acute upper gastrointestinal hemorrhage cases admitted to military hospital Rawalpindi. *Pak Armed Forces Med J* 2001; 51(2): 111-6.
9. Lee JG. What is the value of early endoscopy in upper gastrointestinal bleeding? *Nat Clin Pract Gastroenterol Hepatol* 2006;3(10):534-5.
10. Palmer K. Management of haematemesis and melaena. *Postgrad Med J* 2004;80(945):399-404.
11. Gralnek IM, Barkun NA, Bardou M. Management of acute bleeding from a peptic ulcer. *N Engl J Med* 2008;359(9):928-37.
12. Tham TC, James C, Kelly M. Predicting outcome of acute non-variceal upper gastrointestinal haemorrhage without endoscopy using the clinical Rockall Score. *Postgrad Med J* 2006; 82 (973): 757-9.
13. Masaoka T, Suzuki H, Hori S, Aikawa N, Hibi T. Blatchford scoring system is a useful scoring system for detecting patients with upper gastrointestinal bleeding who do not need endoscopic intervention. *J Gastroenterol Hepatol* 2007;22 (9):1404-8.
14. Albeldawi M, Qadeer MA, Vargo JJ. Managing acute upper GI bleeding, preventing recurrences. *Cleve Clin J Med* 2010; 77(2):131-42.
15. Khan A, Ali M, Khan IM, Khan AG. Causes of severe upper gastrointestinal bleeding on the basis of endoscopic findings. *J Postgrad Med Inst* 2006; 20(2):154-8.
16. Silverstein FE, Gilbert DA, Tedesco FJ, et al. The national ASGE survey on upper gastrointestinal bleeding. 2 Clinical prognostic factors. *Gastrointest Eudosc* 1981; 27:80-93.
17. Kohlar B, Riemann JF. Upper GI-bleeding: value and consequences of emergency and endoscopic treatment. *Hepatogastroenterol* 1991;38:198- 200.
18. Iqbal J. Upper gastrointestinal bleeding; assessment of causes and comparison with other relevant studies. *The Professional Med J* 2004; 11 (4):406-10.
19. Hawkey CJ. Management of gastroduodenal ulcers caused by non-steroidal anti-inflammatory drugs. *Bailliers Best Pract Res Clin Gastroenterol* 2000; 14:173-92.