World Journal of Pharmaceutical Science and Research

www.wjpsronline.com

Research Article

ISSN: 2583-6579
SJIF Impact Factor: 6.916
Year - 2026
Volume: 5; Issue: 3
Page: 324-329

ENDOSCOPIC EVALUATION OF PATIENTS WITH UPPER GI BLEEDING AND ENDOSCOPIC MANAGEMENT OF PATIENTS WITH ESOPHAGEAL AND GASTRIC VARICEAL BLEEDING: A HOSPITAL BASED STUDY FROM NORTH EASTERN INDIA

K. G. Lynrah[1], M. Lyngdoh[1], Yasmeen Hynniewta[1], Kathrina Marbaniang[2], Dathiadiam Tongper*[3]

[1]Department of Medicine, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), Shillong, India.
[2]Department of Medicine, Civil Hospital, Shillong, India.
[3]Department of Surgery, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), Shillong, India.

Article Received: 17 January 2026 | | ***Article Revised: 7 February 2026*** | | ***Article Accepted: 27 February 2026***

***Corresponding Author: Dr. Dathiadiam Tongper**
Department of Surgery, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), Shillong, India.
DOI: https://doi.org/10.5281/zenodo.18875943

How to cite this Article: K. G. Lynrah, M. Lyngdoh, Yasmeen Hynniewta, Kathrina Marbaniang, Dathiadiam Tongper (2026) ENDOSCOPIC EVALUATION OF PATIENTS WITH UPPER GI BLEEDING AND ENDOSCOPIC MANAGEMENT OF PATIENTS WITH ESOPHAGEAL AND GASTRIC VARICEAL BLEEDING: A HOSPITAL BASED STUDY FROM NORTH EASTERN INDIA. World Journal of Pharmaceutical Science and Research, 5(3), 324-329. https://doi.org/10.5281/zenodo.18875943

ABSTRACT

Introduction: Upper GI bleeding is a common medical emergency worldwide and it is an alarm symptom for the patients. Acute variceal bleeding is the most significant cause for morbidity and mortality as the bleeding is massive and usually life threatening. Upper GI Endoscopy is an important diagnostic tool and it is the preferred modality of choice for the evaluation of patients with Upper GI bleeding because of the additional therapeutic intervention that can be carried out either in the same sitting or later as the case may be. **Materials and Methods:** This is a hospital based retrospective observational study carried out in a tertiary hospital over a period of five years from January 2021 to December 2025. All patients with Upper GI bleeding referred for upper GI endoscopy were included in the study. Out of total 12,543 Upper GI endoscopies carried out in the above mentioned period, 673 endoscopies were advised for evaluation of Upper GI bleeding. **Results:** Out of 673 endoscopies referred for evaluation of UGI Bleeding, abnormal findings were detected in 578 (85.88%) patients. The number of patient with Esophageal varices were 67 (9.95%) ant that of Gastric varices was 17 (2.52%). All patients with esophageal and gastric variceal bleeding were initially managed conservatively before they were taken up for Endoscopy within 12 hours of hospital admission. Out of 67 patients with esophageal variceal bleeding, 51(76.11%) patients underwent Endoscopic variceal ligation (EVL) and 16 (23.88%) patients were given Injection sclerotherapy with absolute alcohol. Cyanoacrylate glue injection was given to all patients with gastric variceal bleeding. A total number of 5 patients with esophageal variceal bleeding and 3 patients with gastric variceal bleeding had rebleed within 72 hours and succumbed to their illness. While 7 patients with esophageal variceal bleeding had mild bleeding in the one month follow up period due to post EVL ulcers. **Conclusion:** UGI Endoscopy is an important diagnostic tool for evaluation of patient's with Upper GI bleeding. Acute variceal bleeding is the most important cause of morbidity and mortality and endoscopic intervention is the best options for managing such patients with a good outcome.

KEYWORDS: Esophagus; Gastric; Duodenum, Esophageal varices, Gastrc varices.

INTRODUCTION

Upper GI bleeding is a common medical emergency worldwide and it is an alarm symptom for the patients.[1] Upper gastrointestinal bleeding is estimated to affect between 80 and 150 individuals per 100,000 people annually, with a mortality rate ranging from 2% to 10%.[2] It requires thorough evaluation to determine the underlying cause. The overall outcome depends on early diagnosis and treatment. There are numerous aetiology of Upper GI bleeding and acute variceal bleeding is the most important cause of morbidity and mortality as the bleeding is massive and usually life threatening.The clinical presentation of Upper GI bleeding may be in the form of mild self-limiting episodes to massive haemorrhage leading to hypovolemic shock and eventually death if not diagnosed and without timely intervention. Upper GI Endoscopy is an important diagnostic tool and it is the preferred modality of choice for the evaluation of Upper GI bleeding because of the additional therapeutic intervention that can be carried out either in the same sitting or later as the case may be.

MATERIAL AND METHOD

This is a hospital based retrospective observational study carried out in a tertiary hospital over a period of five years from January 2021 to December 2025. All patients with Upper GI bleeding referred for upper GI endoscopy were included in the study.

RESULTS

Out of total 12,543 Upper GI endoscopies carried out in the above mentioned period, 673 endoscopies were for evaluation of Upper GI bleeding. There were 470 males and 203 females respectively, which constituted about 69.83% and 30.16 % respectively, with a male to female ratio of 2.3:1. The patient's age ranged between 7 and 87 years with a mean age of 41.21 ± 15.82(Table 1).

Out of 673 endoscopies referred for UGI Bleeding, abnormal findings were detected in 578 (85.88%) patients (Table 2). The different etiologies detected were Esophageal varices 67(9.95%), Gastric varices 17 (2.52%), Peptic Esophagitis 47 (6.98%), Esophageal carcinoma 36 (5.34%), Mallory weiss tear 11 (1.63%), Erosive gastritis 111 (16.49%), Peptic Gastric ulcers 102 (15.15%), Gastric carcinoma 29 (4.30%), Gastric polyps7 (1.04%), Gastric angiodysplasia 5 (0.74%), Peptic Duodenal ulcers 115 (17.08%), Duodenal erosions 23 (3.41%), Periampullary carcinoma8 (1.18%), Normal findings in 95 (14.11%).

All patients with esophageal and gastric variceal bleeding were initially managed with intravenous fluids, blood transfusion, Somatostatin injection for reducing the portal venous pressure and antibiotic prophylaxis before they were taken up for Endoscopy within 12 hours of hospital admission. Out of 67 patients with esophageal variceal bleeding, 51(76.11%) patients underwent Endoscopic variceal ligation (EVL) and 16 (23.88%) patients were given Injection sclerotherapy with absolute alcohol. Cyanoacrylate glue injection was given to all patients with gastric variceal bleeding. A total number of 5 patients with esophageal variceal bleeding and 3 patients with gastric variceal bleeding had rebleed within 72 hours and succumbed to their illness. While 7 patients with esophageal variceal bleeding had mild bleeding in the one month follow up period due to post EVL ulcers.

Table 1: Age wise distribution of patients with UGI Bleed.

Age (years)	Number of patients (n=673)	Percentage
≤ 30 yrs	201	29.86%
31-40	156	23.17%

41-50 yrs	119	17.68%
51-60 yrs	88	13.07%
61-70 yrs	43	6.38%
71-80 yrs	37	5.49%
>80 yrs	29	4.30%

Table 2: Endoscopic findings in patients with UGI Bleed.

Endoscopic diagnosis	Number of patients(n= 673)	Percentage
Esophageal varices	67	9.95%
Gastric varices	17	2.52%
Peptic Esophagitis	47	6.98%
Esophageal carcinoma	36	5.34%
Mallory weiss tear	11	1.63%
Erosive gastritis	111	16.49%
Peptic Gastric ulcers	102	15.15%
Gastric carcinoma	29	4.30%
Gastric polyps	7	1.04%
Gastric angiodysplasia	5	0.74%
Peptic ulcer - Duodenal ulcers	115	17.08%
Duodenal erosions	23	3.41%
Peri-ampullary carcinoma	8	1.18%
Normal findings	95	14.11%

Figure 1: Bleeding esophageal varices.

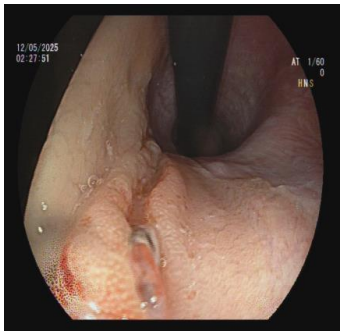

Figure 2: Mallory weiss tear.

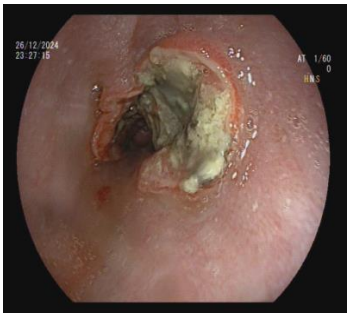

Figure 3: Carcinoma esophagus.

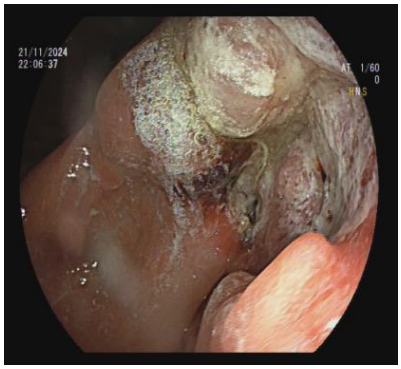

Figure 4: Carcinoma stomach.

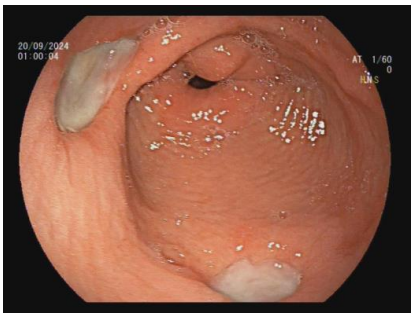

Figure 5: Peptic ulcers stomach.

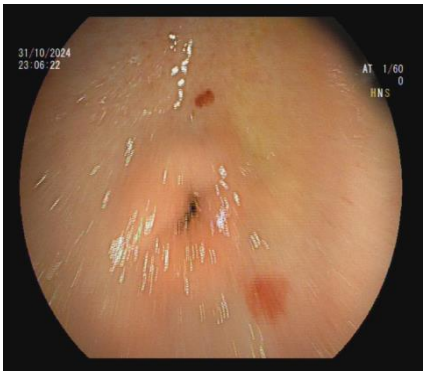

Figure 6: Gastric angiodysplasia.

Figure 7: Peptic ulcers duodenum.

Figure 8: Peri-ampullary carcinoma.

DISCUSSION

This study was carried out over a period of five years and included 673 patients which are more than the previous study.[3,4,5,6] This study however has less numbers of subjects compared to the study from Odisha.[7] In this study there were 470 male and 203 females with the male to with female ratio of 2.3:1 which were similar to other studies.

The most common etiology of UGI Bleed in this study is Peptic ulcer disease (32.24%) which is similar to other studies.[1,3,8,9] However in studies carried out by Shakeel et al., and Surendran M et al.[10,11] Variceal bleed were more in numbers as an etiology of UGI bleeding.

Malignancy was detected in 65(10.8%) patients which is similar to most studies.[8,9,10,11]
Normal UGI Endoscopy seen in 95(14.11%) patients which is much more than other studies.[8,10,11]
The Endoscopic management of Variceal bleeding is as per recommendation of the Asian Pacific Association for the Study of the Liver [APASL].[12]

CONCLUSION

UGI Endoscopy is an important diagnostic tool for evaluation of patients of Upper GI bleeding. Various endoscopic therapeutic interventions can be carried out especially in patients with acute variceal bleeding. Standard management protocol should be initiated at the earliest in patients with UGI Bleeding. Endoscopy should not be delayed after the initial stabilization as the outcome depends much on early diagnosis and timely intervention.

REFERENCES

1. Bhandary NM, K V RP, Somaya A. Clinical, Endoscopic Profile and Management of Patients with Upper Gastrointestinal Bleeding in Tertiary Care Center in Southern Karnataka. Int J Contemp Med Res, March 2019; 6(3): ICV: 98.46 | ISSN (Online): 2393-915X.
2. Thomopoulos KC, Vagenas KA, Vagianos CE, Margaritis VG, Blikas AP, Katsakoulis EC, et al. Changes in aetiology and clinical outcome of acute upper gastrointestinal bleeding during the last 15 years. Eur J Gastroenterol Hepatol, 2004; 16: 177-82.
3. Panigrahi PK, Mohanty SS. A study on endoscopic evaluation of upper gastrointestinal bleeding. J Evid Based Med Heal, 2016; 3(27): 1245–52.

4. Manju Surendran, K Sunil Kumar. Clinical and Endoscopic Profile of Upper Gastrointestinal Bleed: A Cross-sectional Study from a Tertiary Care Hospital in Southern IndiaJournal of Clinical and Diagnostic Research, 2021 Mar; 15(3): OC14-OC17.
5. Koushik Chakma, Saumik Chakraborty, Avik Chakraborty. Endoscopic Profile of the Patients with Upper gastrointestinal bleeding in a North-Eastern state of India- A Hospital-Based Cross-sectional study. J Evid Based Med Health, May. 03, 2021; 8(18): Pissn-2349-2562eISSN-2349-2570.
6. Sunil T George, A Sankar, G Jagan. A Study on Upper Gastrointestinal Endoscopic Findings in Patients Admitted with Upper GI Bleed. Journal of Research in Medical and Dental Science, June 2021; 9(6).
7. Shivaram Prasad Singh, Manas Kumar PanigrahiT. Spectrum of upper gastrointestinal hemorrhage in coastal Odisha. Trop Gastroenterol, 2013 Jan-Mar; 34(1): 14-7.
8. Parvez MN, Goenka MK, Tiwari IK, Goenka U. Spectrum of upper gastrointestinal bleed: An experience from Eastern India. J Dig Endosc, 2016 Apr; 07(02): 055–61.
9. Jutabha R, Jensen DM. Management of upper gastrointestinal bleeding in the patient with chronic liver disease. Med Clin North Am, 1996; 80(5): 1035–68.
10. Shakeel S, Khan MIH, Nabi GU, Ullah E, Mehmood A, Zulfiqar M. Upper gastrointestinal bleed; patterns of endoscopic findings in patients in Lahore general hospital, Lahore. Prof Med J, 2016; 23(10): 1247–51.
11. Surendran M, KuMar KS. Clinical and Endoscopic Profile of Upper Gastrointestinal Bleed: A Cross-sectional Study from a Tertiary Care Hospital in Southern India. J Clin Diagn Res [Internet], 2021 [cited 2025 Mar 12]; 15(3).
12. Lesmana, C.R.A., Shukla, A., Kumar, A. *et al.* Management of acute variceal bleeding: updated APASL guidelines. *Hepatol Int*, 2025; 19: 1003–1031.