

Outcome of Upper Gastrointestinal Endoscopy of Patients Presenting With Upper Gastrointestinal Bleed

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ABSTRACT

Objective: To document various endoscopic findings in our unit in patients undergoing upper gastrointestinal (GI) endoscopy for upper gastrointestinal bleed.

Design: Observational

Patients and methods: The data of patients who underwent upper GI endoscopy in endoscopy unit medical unit III of Services Hospital Lahore from January 2010 to December 2010 was analyzed. Reasons for referral and endoscopic diagnoses were noted.

Results: Among 218 patients, 53.2% (n=116) had esophageal varices with red sign. 53.2% (n=116) had moderate to severe portal hypertensive gastropathy. 13.7% (n=30) had fundal varices with red sign, 11% (n=24) had gastric ulcers, hemorrhagic gastritis and gastric erosions. 10% (n=22) had duodenal ulcers or erosions with evidence of recent bleed. Lesser common causes with percentage less than 5% included gastro esophageal reflux disease, telangectasias, Mallory Weiss tears and stomach cancers. 3.7% (n=8) had normal endoscopy.

Conclusion: The most common endoscopic finding in patients with upper GI bleeding was moderate to severe portal hypertensive gastropathy and esophageal varices with red sign.

Key words: Upper GI endoscopy, esophageal varices.

INTRODUCTION

Upper GI bleeding is a global problem and a common medical emergency¹. The causes of bleeding vary from country to country. Commonest causes are esophageal varices, peptic ulcer, gastric erosions and mucosal tears^{2,3}. Upper GI endoscopy is the diagnostic modality of choice for UGI bleeding⁴ and it also has therapeutic potential. In a study from one large health maintenance organization, the annual incidence of hospitalization for acute UGI bleeding was 102 per 100,000⁵.

Upper GI bleeding commonly presents with hematemesis (vomiting of blood or coffee-ground like material) and/or melena (black, tarry stools). A nasogastric tube lavage which yields blood or coffee-ground like material confirms this clinical diagnosis. However, lavage may not be positive if bleeding has ceased or arises beyond a closed pylorus. The presence of bilious fluid suggests that the pylorus is open and, if lavage is negative, that there is no active upper GI bleeding distal to the pylorus. In comparison, hematochezia (bright red or maroon colored blood or fresh clots per rectum) is usually a sign of a lower GI source (defined as distal to the ligament of Treitz). Although helpful, the distinctions based upon stool color are not absolute since melena

can be seen with proximal lower GI bleeding, and hematochezia can be seen with massive upper GI bleeding⁶⁻⁸.

Medical unit III of Services Hospital Lahore has been accepted by the College of Physician and Surgeons as a Gastroenterology unit and has received full accreditation by the Government of Punjab for training undergraduates and post graduate residents in the disciplines of Gastroenterology and Hepatology. It has a very large referral area from all over Punjab for upper GI endoscopy. The objective of the study was to find out endoscopic diagnoses of these patients with upper GI bleed.

PATIENT AND METHODS

The study was conducted in the endoscopy suite of medical unit III Services Hospital Lahore. All patients with upper GI bleed were included in the study. Patients were referred from inpatient, outpatient and accident & emergency departments. After resuscitation and pharmacological management with sandostatin, omeprazole infusion, antibiotics and transfusions of blood fresh frozen plasma and platelet concentrates (as required), upper GI endoscopy was done in all patients.

A written informed consent was taken from every patient before the procedure. Local anesthetic, 4% xylocaine solution was used for gargles. Upper GI endoscopy was done in all patients with upper GI

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bleed following which definitive endoscopic treatment was administered. For obliteration of esophageal varices band ligation was done with Saeed's six shooter band ligator. Injection histoacryl and lipiodol was used for obliteration of fundal varices. Bleeding ulcers in the stomach and duodenum and Mallory Weiss tears were injected with 1:10,000 adrenaline. Spurters were referred to surgery. Telangectasias were coagulated with argon plasma coagulation.

RESULTS

Out of a total of 218 patients with UGI bleed 49.5% (n=108) were males and 50.5% (n=110) were females. The endoscopic findings in these patients are tabulated below.

Endoscopic findings	No	%
Esophageal varices	116	53.2
Portal hypertensive gastropathy	116	53.2
Fundal varices	30	13.7
Gastric ulcers/erosions	24	11
Duodenal ulcers/erosions	22	10
Telangectasias	2	0.9
Mallory weiss tears	2	0.9
Normal	8	3.7
Gerd	10	4.6
Carcinoma stomach	4	1.8

DISCUSSION

Upper GI bleeding can be classified into several broad categories based upon anatomic and pathophysiologic factors. Several endoscopic studies have described the most common causes⁵⁻⁷. Results have varied, possibly reflecting trends over time or differences in study design, populations, and definitions. A prospective series of 1000 cases of severe upper GI bleeding at the UCLA and West Los Angeles Veterans Administration Medical Centers published in 1996 found the following distribution of causes⁹.

1. Peptic ulcer disease — 55%
2. Esophagogastric varices — 14%
3. Arteriovenous malformations — 6%
4. Mallory-Weiss tears — 5%
5. Tumors and erosions — 4% each
6. Dieulafoy's lesion — 1%
7. Other — 11%

More recent data suggest that the proportion of cases caused by peptic ulcer disease has declined¹⁰⁻¹¹. Peptic ulcers were responsible for only 21 percent of episodes of upper gastrointestinal bleeding among 7822 patients included in a national, United States

database between 1999 and 2001¹⁰. The most common cause was nonspecific mucosal abnormalities (42 percent), while esophageal inflammation accounted for about 15 percent, and varices about 12 percent. Other causes (arteriovenous malformations, Mallory-Weiss tears, and tumors) each accounted for less than 5 percent of cases. Among ulcer cases, gastric ulcers were more common than duodenal ulcers representing about 55 percent of all ulcers.¹¹

A large database study focused on 243,428 upper endoscopies performed between 2000 and 2004 in a practice setting (rather than in tertiary care).¹² The most common endoscopic findings in patients with upper GI bleeding were an ulcer (33 percent) followed by an erosion (19 percent). Gastric ulcers were more common than duodenal ulcers (55 versus 37 percent).¹² Patients with variceal bleeding were excluded from the analysis.

In our study the commonest cause of UGI bleed is esophageal varices caused by chronic liver disease. An interesting finding is that 3.7% of patients had a normal endoscopy. To minimize the number of negative endoscopies it is essential that a detailed history be taken and every effort be made to distinguish hemoptysis, epistaxis and gum bleeds from hematemesis.

Pakistan is a cirrhotic state¹³ and most commonly, upper GI bleed is due to esophageal varices in our population, for which endoscopy has also therapeutic role¹⁴ so it is necessary for health profession management in Pakistan to provide this facility at district and tehsil level. This will reduce the mortality and morbidity with upper GI bleed significantly.

CONCLUSION

The commonest cause of upper GI bleed in our study was esophageal varices and portal hypertensive gastropathy that can be managed effectively by providing the facility of upper GI endoscopy and endoscopic band ligation at district level in Pakistan.

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