Original Article

A Two Year Experience of Upper Gastrointestinal Endoscopy at Bahawal Victoria Hospital, Bahawalpur

Upper Gastrointestinal Endoscopy

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ABSTRACT

Objective: The objective of this study is to look for the indications and findings of upper gastrointestinal endoscopy being performed at Bahawal Victoria Hospital Bahawalpur.

Study Design: Cross sectional, descriptive study.

Place and Duration of Study: This study was conducted at the Bahawal Victoria Hospital, Bahawalpur from a period of January 2014 to December 2016.

Materials and Methods: A total of 1582 patients underwent upper gastrointestinal endoscopy. All the referred patients for UGI endoscopy were briefed about the procedure and a written informed consent was obtained. Gargles of 4% Xylocaine oral spray were used as a local anesthesia.

Results: The results showed that UGI bleeding is the most common presenting complaint 35.6%. The most common finding was esophageal varices in 39.4% patients. Gastritis was present in 21.9% and peptic ulcer disease in 6.1% of the patients. 18.5% of the patients had normal study.

Conclusion: Upper gastrointestinal bleeding was the most common presenting complaint. The endoscopy revealed that esophageal varices are the most common finding followed by gastritis and normal study.

Key Words: Upper gastrointestinal endoscopy, upper gastrointestinal bleeding (UGIB), esophageal varices

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INTRODUCTION

The upper gastrointestinal bleeding is still a serious risk and challenge to the health care system despite of all the advancements in medical sciences.[1] Loss of blood from gastrointestinal tract above the ligament of treitz is labeled as Upper Gastrointestinal Bleeding (UGIB).[12] It manifests itself as Hematemesis (blood in vomitus) or Melena (black, tarry stools).[6] It can be broadly divided into two categories Variceal and non variceal bleeding. It has an incidence of 150 per 1, 00,000 population and a mortality rate of 10%.[1,12] Variceal bleeding (esophageal and fundal) secondary to liver cirrhosis predominate in the developing countries like Pakistan secondary to high incidence of chronic hepatitis, while the peptic ulcer disease is the leading cause of UGIB in west or developed countries. [2-4]

Mortality due to UGIB has been decreased significantly over the last three decades secondary to the drugs to reduce portal vein pressure and endoscopic interventions and also the use of proton pump inhibitors and prophylactic antibiotics.[1]

Although upper gastrointestinal endoscopy is an invasive procedure with risks and complications but still a preferred choice in UGIB due to its diagnostic and therapeutic uses.[5,6] UGI Endoscopy has significantly decreased the mortality due to UGI bleeding. Bahawal Victoria Hospital is a tertiary care hospital in Bahawalpur, Punjab with a Gastroenterology and Hepatology Department equipped with endoscopy. Patients having indications of UGI endoscopy undergo endoscopy to diagnose and treat the underlying causes. It has to entertain a huge number of referrals from the Southern Punjab region.

MATERIALS AND METHODS

It was a cross sectional descriptive study. A data of 1582 patients was analyzed. These patients had UGI Endoscopy at Bahawal Victoria Hospital Bahawalpur from 01st January 2014 to 31st December 2016. All the referred patients for UGI endoscopy from Inpatient Departments, Outpatient Departments of various

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specialties and Accidents and Emergency Department of the hospital were the subject of study.

Every patient was briefed about the procedure and a written informed consent was obtained. Gargles of 4% Xylocaine oral spray were used as a local anesthesia. Diagnostic and therapeutic procedure was performed under aseptic conditions. Olympus GIP type 150 series gastro scope was used. Upper gastrointestinal tract was visualized up to the ligament of treitz. Saeed Six Shooter band ligator was used for banding the esophageal varices and Inj. Histoacryl with Lipiodol was used for obliteration of the fundal varices. Bleeding duodenal ulcers were injected with 1:10,000 adrenaline. Adrenaline injection promotes a local vasoconstriction and tamponade effect, which allows stopping the bleeding. In case of a suspicious area biopsies were taken and sent for histopathology.

Demographic data of the patient like age, gender, and area of residence was recorded along with indications, findings observed and therapeutic intervention performed during the upper gastrointestinal endoscopy were noted.

RESULTS

The data was carefully analyzed. Out of 1582, most of patients were between 35 to 52 years of age. Percentage of male patients was 57.1% and female was 42.9%.

UGI Bleeding and follow up for Endoscopic Variceal Band Ligation (EVBL) contributes 35.6% (n=563) and 25.4% (n=402) respectively to all the upper gastrointestinal endoscopies performed at Bahawal Victoria Hospital, Bahawalpur. Liver cirrhosis due to chronic hepatitis is very common in Pakistan. Patients from remote areas of Bahawalpur often report to tertiary care center with complications of liver cirrhosis and UGI bleeding being one of the most common acute presentations. 25.3% (n=400) of the patients had dyspepsia and 6.3% (n=100) had dysphagia as an indication to undergo UGI Endoscopy. 5.5% (n=87) patients had persistent vomiting and 0.8% (n=13) patients had unexplained anemia. Malignancies are not uncommon in this part of the country. Screening for malignancy makes up 1.9% (n=17) of the total number of UGI endoscopies during the study period as shown in Table 1.

Table No. 1: Indications for Endoscopy

Sr. No.	Indications	No. of Patients	%age
1.	UGI Bleeding	563	35.6%
2.	Follow up EVBL	402	25.4%
3.	Dyspepsia	400	25.3%
4.	Dysphagia	100	6.3%
5.	Intractable Vomiting	87	5.5%
6.	Malignancy Screening	17	1.9%
7.	Anemia	13	0.8%

The findings in all of the above patients were very consistent with any other studies conducted in this part of the world. Esophageal varices were the most common finding in 39.4% (n=624) of the patients, followed by gastritis, which was present in 21.9% (n=346%). Peptic ulcer disease was present in 6.1% (n=97), fundal varices in 3.2% (n=50), gastro esophageal reflux disease in 3% (n=47), malignant growth in esophagus in 1.8% (n=29), duodenal ulcers in 1.7% (n=27), esophageal strictures in 1.3% (n=20),gastric outlet obstruction in 0.9% (n=14), malignant growth in stomach in 0.9% (n=14), esophageal candidiasis in 0.7% (n=11), talengectasias in 0.4% (n=6) and achalasia in 0.3% (n=5) as shown in Table 2. 18.5% (n=292) of the patients had normal study despite having an indication to undergo UGI endoscopy.

Table No. 2: Findings of UGI Endoscopy

Sr. No.	Findings	No. of Patients	%age
1.	Esophageal varices	624	39.4%
2.	Gastritis	346	21.9%
3.	Normal Study	292	18.5%
4.	Peptic Ulcer Disease	97	6.1%
5.	Fundal Varices	50	3.2%
6.	Gastro Esophageal Reflux Disease (GERD)	47	3.0%
7.	Malignant Growth in Esophagus	29	1.8%
8.	Duodenal Ulcers	27	1.7%
9.	Esophageal Strictures	20	1.3%
10.	Gastric Outlet Obstruction	14	0.9%
11.	Malignant Growth in Stomach	14	0.9%
11.	Esophageal candidiasis	11	0.7%
12.	Talengectesias	6	0.4%
13.	Achalasia	5	0.3%

DISCUSSION

Presence of esophageal varices in this study 39.4% is comparable to studies conducted elsewhere in Pakistan like 44% in Rahim Yar Khan.[7] Such high levels are due to the high prevalence of chronic hepatitis in Pakistan. Pakistan has been labeled as cirrhotic nation.[8] Finding in our study was fully supportive of the above statement. Follow up esophageal varices and fundal varices secondary to liver cirrhosis make up 39.4% and 3.2% respectively and aggregate reaches up to 42.6% of the total. This means nearly half of the patients undergoing UGI endoscopy was secondary to a single complication (UGI Bleeding) of a single cause (liver cirrhosis). Our results are quite consistent with the studies previously conducted in Pakistan. Cirrhosis

imposes a fair amount of burden on the healthcare system in Pakistan.

Peptic ulcer disease is not the most common cause of UGI in Pakistan as compared to the west.[9, 10] In this study only 6.1% (n=97) patients had peptic ulcer disease, compare able to study conducted in Gujrat which shows 10% of the patients had UGI bleed secondary to peptic ulcer disease.[6] One of the possible causes of decreased number of peptic ulcer disease is very frequent prescription of proton pump inhibitors. Alcohol is an identified risk factor for Peptic ulcer disease.[11] Pakistan has a Muslim population of over 95% and Islam strictly prohibits drinking alcohol. This may be a major factor for lesser number of peptic ulcer disease; however, if considering non variceal causes of UGI bleeding, peptic ulcer contributes 34% and gastric erosions 32% according to a study conducted in Rawalpindi.[3]

Normal study was observed in 18.5% of the patients in our study. This number is surprisingly high. Appropriateness of the referrals for UGI endoscopy has been a serious debate around the world. Study conducted in Nepal showed 65.8% of the indications were considered appropriate as per American Society for Gastrointestinal Endoscopy (ASGE) guidelines. [5]

CONCLUSION

UGI Endoscopy is a reliable diagnostic and therapeutic tool and has helped to diagnose and manage many life threatening conditions like UGI bleeding. UGI Endoscopy has significantly influenced the outcome of UGI bleeding patient. Chronic viral hepatitis puts a huge burden directly on the Gastroenterology and Hepatology Department and indirectly on the whole Health care system. Pakistan is a nation with large number of cirrhotic patients. Serious efforts are needed for hepatitis prevention, screening and treatment; otherwise lots of resources will be kept on getting engulfed by a preventable cause (viral hepatitis). Over the counter supply of NSAIDS/ Drugs should be prohibited to a certain extent since the NSAID induced gastritis is a major complication and such patients may require UGI endoscopy.

Pakistan is a developing nation and special attention should be paid towards prevention of diseases. Primary prevention can reduce the burden on tertiary care centers and significantly lighten the financial pressure on the health care system of our country. Efforts like Hepatitis Clinics, free and uninterrupted supply of antiviral therapy are highly appreciated. Awareness campaigns are a need of time. People must be aware of the communicable diseases like hepatitis and the preventive measures. Gastroenterology and hepatology units specialized to do UGI endoscopy and outreach programs for early diagnosis of the disease can play a vital role in early diagnosis and treatment. Guidelines need to be developed for Pakistan keeping in view the population and a high prevalence of viral hepatitis.

Author's Contribution:

Concept & Design of Study:	Shahbaz Ahmed Qureshi
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Final Approval of version:	Shahbaz Ahmed Qureshi

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