Clinical, Endoscopic Profile and Management of Patients with Upper Gastrointestinal Bleeding in Tertiary Care Center in Southern Karnataka

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ABSTRACT

Introduction: Upper gastrointestinal bleed (UGIB) is one of the common medical emergencies and is associated with significant morbidity and mortality. Early upper GI endoscopy helps in identifying the etiology and allows for targeted endoscopic treatment resulting in reduced morbidity, hospital stay, risk of re-bleeding and need for surgery. This study aimed to assess the clinical and endoscopic profile and treatment modalities for the patients presenting with upper GI bleed in a tertiary care centre in southern Karnataka.

Material and methods: Data of 410 patients presenting with upper GI bleed to tertiary care centre and who had undergone upper GI endoscopy at AJ hospital and research centre between January 2017 to June 2018 were retrospectively analysed.

Results: All the patients included in the study were above 18 years of age. Majority of the patients were males, with male to female ratio is 5.1:1. It was found that majority of patients presented with hematemesis (87.32%). It was found that most common lesion in upper GI bleed was esophageal varices (44.88%). Based on their endoscopic profiles majority of the patients were managed conservatively (64.15%).

Of the 410 patients 83.66% were males and mean age of study population was 54.37%. The most common presenting manifestation in hematemesis with malena observed in 61.95% patients.

Conclusion: This study highlights variceal bleed as the most common cause of upper GI bleed in southern India followed by peptic ulcer disease.

Keywords: Clinical, Endoscopic Profile, Upper Gastrointestinal Bleeding.

INTRODUCTION

Upper GI bleed is defined as bleeding derived from a source proximal to ligament of treitz, is a common and potentially life threatening GI emergency with a wide range of clinical severity, ranging from insignificant bleeds to catastrophic exsanguinating haemorrhage. The upper GI bleed was found to have an incidence of 50-150/100,000 population per year. It is seen that 70% of the patients presenting with upper GI bleed are more than 60 years of age and above. With the increasing incidence of use of NSAIDS in the elderly, the patients presenting the above cause in about two third the population also due to high prevalence to comorbid conditions (like cardiovascular disease) Patients with upper GI bleed can be divided into variceal and non variceal sources of bleed each have different protocols of management and prognosis. The first and the most common cause is portal hypertension resulting in gastroesophageal varices and portal hypertensive gastropathy, second most common cause being peptic ulcer disease, other causes include erosive gastritis, reflux esophagitis, Mallory weiss tear, malignancy etc.

Patients with age more than 60 years had mortality rates ranging from 12-35%, patients with age less than 60 years was <10% and overall mortality rates of 5-11%, as noted in previous studies. There is a two-fold greater male predilection, however the death rates are similar in both sexes. The factors predisposing to upper GI bleed was largely linked to lifestyle of affected patients.

The primary diagnostic test for evaluation of upper GI bleed is endoscopy, which has a sensitivity of 92-98% and specificity of 30-100%. This study aimed to know the clinical and endoscopic profile of middle aged and elderly patients presenting with upper GI bleed, to know the etiology of the disease and the intervention patients underwent.

MATERIAL AND METHODS

A total of 410 patients presented with upper GI bleeding to A.J institute of medical sciences between January 2017 to July 2018 and underwent upper GI endoscopy, out of which clinical and endoscopic data of 410 patients, aged more than 18 years or more, was compiled and analysed in this study retrospectively. Patients below 18 years of age and with coagulation disorders were excluded. The data analysed included a history of GI bleeding (hematemesis and malena), risk factors for liver disease including alcoholism. All patients in the study received the standard line of management for upper GI bleeding. Patients were subjected to upper GI endoscopy, preferably within the first 24 hours, after taking an informed consent. Endoscopy was

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performed with pharyngeal anaesthesia with 15% lidocaine local anaesthetic spray.

**STATISTICAL ANALYSIS**

The collected data was analysed with descriptive statistics such as mean, standard deviation (SD), frequency and percentages. The results were displayed in tables and figures with continuous variables presented as mean±SD and categorical variables presented as numbers and percentages.

**RESULTS**

In our study, a total of 410 patients with upper GI bleed were taken from our institute- AJ institute of medical sciences, Mangalore, Karnataka from the study period of January 2017 to July 2018.

Parameters used for study were:
1. Etiology of patient
2. Endoscopic findings seen in the patient
3. Intervention done for the patient.

**Demographic data:**
The population comprised of 343 males (83.66%) and 67 females (16.34%) with a male is to female ratio of 5.1:1 (table-1).

All the patients included in the study were above 18 years of age and the eldest patient was 90 years old. The most affected age group was between 51-70 years (Table-2).

**Etiology of patient**

After studying the clinical profile of the patients it was found that majority of patients presented with hematemesis with malena (61.95%) and hematemesis alone (25.85%) and...
Endoscopic findings seen in the patient

These patients were subjected to endoscopic evaluation and the data was compiled and studied and it was found that most common lesion in upper GI bleed was esophageal varices (44.88%) out of which 24.63% had large esophageal varices and 20.24% had small esophageal varices. The second most common cause was peptic ulcer disease (35.12%) out of which gastric ulcer (24.63%) was more common than duodenal ulcer (14.39%). Portal hypertensive related causes (portal hypertensive gastropathy, portal duodenopathy), were seen in 35.36% of patients. Mallory Weiss tear was seen in 6.34% and patients who previously underwent EVL with ulcers were about 7.32%. Biopsy for Helicobacter pylori was positive in 18.05%. The complete list of lesions is shown in table 4.

Intervention done for the patient

Based on the endoscopic profile of the patient’s intervention was planned. Majority of the patients were managed conservatively (64.15%). The other patients were managed with EVL (29.02%), glue injection (3.90%), adrenaline injection (2.44%) and hemoclipping (2.20%). The list of intervention is put up in table 5.

### Table 5: Distribution of patients by mode of intervention

| Intervention     | Present | %    | Absent | %    |
|------------------|---------|------|--------|------|
| Conservative     | 263     | 64.15| 147    | 35.85|
| EVL              | 119     | 29.02| 291    | 70.98|
| Glue injection   | 16      | 3.90 | 394    | 96.10|
| Adrenaline injection | 10   | 2.44 | 400    | 97.56|
| Hemoclipping     | 9       | 2.20 | 401    | 97.80|

**DISCUSSION**

Upper GI bleed is a common medical emergency seen in tertiary care centres. Most of the patients presenting are elderly and have pre-existing co morbid conditions which contribute to high mortality in these patients.

Our study aimed at studying the clinical and endoscopic profile and intervention of patients who presented with upper GI bleed in a tertiary care centre.

Between January 2017 to July 2018, 410 patients were brought to our hospital with upper GI bleed, out of which 344 were about 40 years of age, which was showing that 83.9% were elderly (above 40 years of age). In a study done by Lakhwani et al.,21 upper GI bleeding was more common in age group of 60 years.

Out of 410 patients in our study, upper GI bleed was found to be more common in men (83.66%) as compared to women (16.34%). In a study done by Kashyap et al. found out that, out of 111 patients with upper GI bleeding included in their study, 78.4% were males.20 A study by Rodrigues and Shenoy et al showed that out of all patients with upper GI bleed 74.2% were males and 25.8% were females.23 In another study done by Singh and Panigrahi from coastal Odisha, India it was found that upper GI bleed is more common in males than females, with male to female ratio of 6:1.22

In our study, out of total 410 patients the majority (61.95%) presented with both hematemesis and melena, while (25.85%) presented with hematemesis only, and (12.20%) had melena only. In studies done by Singh and Panigrahi,22 and Bambah et al.,24 melena was the presenting complaint in 95.06% and 19% patients, respectively, and hematemesis was present in 43.09% and 28% patients, respectively, while both hematemesis and melena were seen in 41.78% and 52% patients, respectively.

In the present study 80.24% of patients had portal hypertension related varices, gastropathy, duodenopathy and 35.12% of patients had peptic ulcer disease. And other causes including 6.34% of patients with Mallory Weiss tear, 21.71% of patients with gastric erosions/gastritis, 11.95% patients with duodenal erosions, 18.05% patients with Helicobacter pylori positive, 7.32% patients with post EVL ulcers, 1.71% patients with gastric malignancy.

When considering variceal versus nonvariceal bleed as etiology of upper GI bleed, there are variable results in India. In a recent study conducted in eastern India in 2015, duodenal ulcer was found to be the most common cause of upper GI bleed (41%) and variceal bleed was found in only 13% patients.14 Variceal bleeding was found in higher number of patients because ALD is highly prevalent in south Indian region.

Rapid clinical evaluation and resuscitation is the first thing to be done while attending unstable patients with severe bleeding, followed by the diagnostic evaluation. Early upper GI endoscopy (within 24 hours of presentation) is recommended in most patients as it confirms the diagnosis and helps in targeted endoscopic treatment, resulting in decreased morbidity and mortality.12,13 Surgical intervention may be required in patients with severe and persistent bleeding.

### CONCLUSION

The present study reported portal hypertension as the most common cause of upper GI bleeding, followed by peptic ulcer disease. The most common endoscopic lesions reported were esophageal varices followed by gastric and duodenal ulcers. The most common type of management is medical conservative treatment followed by EVL banding.

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