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Study of Role of Upper G.i Scopy in Patients of Upper Gastrointestinal Bleeding

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ABSTRACT

Background and Objectives: *In the era of modern technology development also seen in medical field especially in surgical instrumentation, development of flexible endoscopy made the visualisation of upper and lower gastro intestinal tract for various conditions easier and now Gastroenterology field is difficult to image without endoscopy. Upper GI scopy, Upper Gastrointestinal Scopy also referred to as Oesophagogastroduodenoscopy (OGD), is a procedure that allows a doctor to examine the state of the upper gastrointestinal tract. Endoscopy remains the gold standard in the diagnosis and management of acute upper gastrointestinal bleeding. Endoscopic sclerotherapy has been the most successful and safest procedure in the management of first bleeding of oesophageal varices.*

Methods: *A prospective study was conducted of 90 patients in Smt. NHL Municipal Medical College-Smt SCL Hospital during the period from 1stJuly 2011 to 30thSeptember 2013. All patients were indoor and OPD patients with age between 20 to 70 years and haemoglobin below 10. Each patient was studied in detail with relevant clinical history, examinations, laboratory investigations and management.*

Results: *Upper gastrointestinal bleeding was more common in males than in females and the mean age in this study was 41 years with the range falling from 20 to 70 years with 57% were alcoholics and smokers. Peptic ulcer disease (43.3%) was the most common cause of upper GI bleeding followed by varices (33.3%). All the cases of upper gastrointestinal haemorrhage secondary to oesophageal varices were subjected to endoscopic sclerotherapy with 1% sodium tetradocylsulphate which controlled the initial bleeding in 76% of cases.Gastric ulcers with bleeding were subjected to biopsy through endoscopy.*

Conclusion: *Upper GI scopy was very useful in locating the site of bleed in all the cases, for taking biopsy for histopathological study in suspicious cases of pathological lesion and for sclerotherapy in cases with variceal bleeding. Endoscopic sclerotherapy has been found to be most successful and safe procedure in the initial arrest of bleeding due to oesophageal varices with least complications.*

KEYWORDS : Upper GI scopy, upper GI bleeding, sclerotherapy, biopsy.

Introduction:

Upper gastrointestinal bleeding commonly defined as bleeding arising from the esophagus, stomach, or duodenum. Blood may be observed in vomit (hematemesis) or in altered form in the stool (melena). Depending on the severity of the blood loss, there may be symptoms of insufficient circulating blood volume and shock.[1,2] As a result, upper gastrointestinal bleeding is considered a medical emergency and typically requires hospital care for urgent diagnosis and treatment. Upper gastrointestinal bleeding affects around 50-150 people per 100,000 annually. Depending on its severity, it carries an estimated mortality risk of 11%. Upper gastrointestinal bleeding can be caused by peptic ulcers, gastric erosions, esophagealvarices, and some rarer causes such as gastric cancer.The initial assessment includes measurement of the blood pressure and heart rate, as well as blood tests to determine hemoglobin concentration.[3,4,5] In significant bleeding, fluid replacement is often required, as well as blood transfusion, before the source of bleeding can be determined by endoscopy of the upper digestive tract with GI scopy. Depending on the source, endoscopic therapy can be applied to reduce rebleeding risk. Specific medical treatments (such as proton pump inhibitors for peptic ulcer disease) or procedures (such as TIPS for varicealhemorrhage) may be used. Recurrent or refractory bleeding may lead to need for surgery, although this has become uncommon as a result of improved endoscopic and medical treatment.[6,7,8]

Georg Wolf (1873–1938) a Berlin manufacturer of rigid endoscopes produced the Sussmann flexible gastroscope in 1911 and Basil Hirschowitzand Larry Curtiss invented the first fiber optic endoscope in 1957.[9]Upper GI scopy, Upper Gastrointestinal Scopyalso referred to as Oesophagogastroduodenoscopy (OGD), is a procedure that allows a doctor to examine the state of the upper gastrointestinal tract.[10,11] The procedure will usually be performed by a gastroenterologist or general surgeon. It involves the insertion of an endoscope (a long flexible tube with a camera at the end) into the gastrointestinal tract through the mouth. It can be done with the patient alert or under general anaesthesia.[12]

Objectives of the Study:

The aims and objectives of this study areto assess the important etiological factors for upper GI bleeding diagnosed by Upper GI scopy and to take biopsy in suspected cases of pathological lesion.

Inclusion criteria:

Age between 20 to 70 year Hb level less than 10 on admission

Exclusion Criteria:

HIV HbsAg Positive patients Associated co morbid illness like cardiac failure or Respiratory problems Paediatric patients

Results and Discussion:

All the patients belong to the age group between 20-70 years and majority of patients 30(33.36%) were in the age group of 41-50 years and 69 were males and 21 were females with male:female ratio 3.3:1. 57 (63.3%) patients were chronic smokers and 51 (56.6%) were chronic alcoholics. 56% patients had habit of both chronic smokers and alcoholics.

Endoscopic diagnosis

Diagnosis	No of cases	Percentage
Peptic ulcer disease Duodenal ulcer Gastric ulcer	30 9	33.33 10
Varices Oesophageal Gastric	27 3	30 3.33
Erosive gastritis	15	16.66

Mallory Weiss Syndrome	3	3.33
Oesophagitis (Candidial)	3	3.33

Peptic ulcer disease included duodenal and gastric ulcer (43.3%) was the most common cause of disease followed by varices (33%).15 patients (16.66%) was diagnosed as erosive gastritis followed by Mallory Weiss syndrome and candidialoesophagitis.

Biopsy was taken from all suspicious cases especially in gastric ulcer.

CASES SUBJECTED TO BIOPSY	BENIGN ULCER	POSITIVE FOR MALIGNANCY
9 (10%)	3(3.3%)	6 (6.6%)

Biopsy was taken from all quadrants of the lesion. In this study, 9 were subjected to biopsy of which 6 were positive for adenocarcinoma of stomach.

ENDOSCOPIC SCLEROTHERAPY

A	Number of cases of variceal bleeding	30
	Number of cases who underwent Sclerotherapy	30
B	Emergency	12
C	Elective	18
D	Number of cases with recurrence of variceal bleeding	6
E	Number of cases expired	9
F	Number of cases still in follow up	21
G	Complications after sclerotherapy	Nil

Recurrent bleeding was seen in 6 of 30 patients.

One of them died of hepatic coma on 4th day after admission and the other 5 died of repeated bouts severe haematemesis, not controlled by sclerotherapy or medical management. 3 patients lost for follow up.

15 out of 30 patients with oesophageal variceal bleeding who underwent sclerotherapy, had no recurrence in the 6 months follow up period and are still undergoing chronic sclerotherapy. Among 30 patients, spontaneous cessation of bleeding was seen in 15 cases.

Conclusion:

Upper GI scopy was very useful in

- Locating the site of bleed in all the cases.
- For sclerotherapy in cases with variceal bleeding.
- For taking biopsy for histopathological study in suspicious cases of pathological lesion

Most common cause of upper gastrointestinal bleeding in the present study was found to be secondary to oesophageal varices and peptic ulcer.

These were seen three times more common in males than females and with a mean age group of 40-50 years. Most of the patients subjected to the study were alcoholics and smokers.

Investigation starting from simple haemoglobin estimation,Coagulation profile, renal parameters, ultrasound examination of abdomen and then finally endoscopy were very useful to come to clinical diagnosis.

Spontaneous cessation of bleeding was seen in most of the cases. Conservative line of management by β blocker, H2 blocker and last iron therapy had good response in management of upper gastrointestinal bleeding.

Endoscopic sclerotherapy has been found to be most successful and safe procedure in the initial arrest of bleeding due to oesophageal varices with least complications.

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