

RESEARCH ARTICLE

UPPER GASTRO-INTESTINAL BLEEDING IN A TERTIARY CARE CENTER IN NORTH-EAST INDIA: A RETROSPECTIVE STUDY

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Manuscript Info	Abstract	
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Introduction:-

Acute upper gastrointestinal bleeding is a very serious life threatening complication of gastro-intestinal tract. In United States an annual hospital admission of more than 300,000 is due to UGI bleed.¹ The incidence of upper gastrointestinal bleed (UGIB) is estimated to be approximately 100 cases/100,000 populations per year worldwide.² The incidence is two folds higher in males in comparison to females in all age group but mortality rate is same for both sexes.³Upper GI endoscopy has become the investigation of choice for UGI bleed patients. Now-a-days even though we have potent medications and we can do therapeutic intervention via endoscopy the overall mortality has not improved much as indicated by many international studies.^{4,5,6}

About two-thirds of all patients presenting to the emergency department with GI bleed have upper GI bleed as the cause.⁷ Patients with upper GI bleed can be broadly divided into non variceal and variceal cause of upper GI bleed as the treatment protocol is very different for both.⁸The most common cause leading to this condition is peptic ulcer.⁹ The second cause is found to be variceal bleeding.

The primary diagnostic test for evaluation of upper GI bleeding is endoscopy. Endoscopy for upper GI bleed has a sensitivity of 92%-98% and specificity of 30%-100%.¹⁰Early endoscopic appearance of certain lesions help in diagnosis and to guide care and thereby reduce rebleeding, requirement for transfusion, the need for surgery, costs and duration of hospitalization.^{11,12}

There is very limited data about patients with upper GI bleed in this part of the country. So this study was designed to assess the aetiology, clinical characteristics, diagnostic efficiency of endoscopy and clinical outcome of the patients admitted due to Upper Gastrointestinal Bleed (UGIB).

Materials and Methods:-

The present study was a retrospective study done on patients admitted due to upper GI bleed. The duration of the study was 1 year. The total no of patients admitted during the period was 142. Out of these 120 patients were included in the study as the other 22 patients had some serious premorbid conditions.

Detailed clinical history, endoscopic data, laboratory reports, patient outcome were collected retrospectively. Endoscopy were done in these patients after taking their consent as early as possible after the patients became stable.

The mean age of the patients were 46.92 years. The youngest was 13 years and oldest was 80 years. The presenting symptoms of patients were passage of tarry black stool or vomiting of blood or both. Immediately during admission patients were assessed for vital signs and immediate resuscitation was done with intravenous isotonic saline or synthetic colloid if they presented in shock. Blood transfusion was given if required.

After stabilisation all patients were subjected to upper gastro-intestinal endoscopy after their consent. The instrument used was Olympus CV 70. Biopsy material was taken in patients with peptic ulcer disease for rapid urease test to detect the presence of H.Pylori. Biopsy material was also taken for histopathological study if neoplastic conditions were suspected. The collected results and observation is given in the below section of the monograph.

Results And Observations:-

Out of 120 patients with UGIB maximum number of patients (29.16%) were in the age group of 41-50 years followed by 21.67% in the age group of 51-60 years. The age of patients ranged from 13-80 years with a mean of 46.92 years.



A male preponderance was found with 84.17 % versus female cases (15.83%) the ratio being 5.32:1. The most common clinical presentation was hematemesis and melaena (50%), followed by melaena (31.67%) and haematemesis alone (18.33%).



Upper GI endoscopy showed peptic ulcer disease to be the most common cause of GI bleed (54.16%). Among them duodenal ulcer constituted 33.33% and gastric ulcer 20.83%. Second most common cause of UGIB was ruptured gastro-esophageal varices (24.16%) followed by gastric erosion (9.17%), duodenal erosion (5%), Mallory Weiss tear (1.67%), esophageal growth (1.67%), aderocarcinoma of stomach (1.67) and a normal endoscopic finding was found in 2.50% patients.



In this study peptic ulcer was found to be highest (26) in the age group of 41-50years, gastro-esophageal varices were found highest between 41-50 years and gastro-esophageal neoplasm between the age group of 50 to 70 years. The Rapid Urease test for helicobacter pylori infection was found positive in 56.92% of peptic ulcer disease. H pylori was found in 62.50% of duodenal ulcer and 48.00% of gastric ulcer patients. H pylori was found only in 17.67% of erosive mucosal disease patients. Amongst peptic ulcer & erosive mucosal disease alcohol ingestion was found to be the commonest associated risk factor (35%) followed by non steroidal anti inflammatory drug use (14.63%), smoking (13.82%) and steroid (3.25%). Erosive mucosal disease was commonest endoscopic finding in those taking non-steroidal anti-inflammatory drugs (77.78%) followed by gastric ulcer (16.66%) and duodenal ulcer (5.66%) Among those taking alcohol (42 patients) gastroesophageal varices was the commonest endoscopic finding (69.05%) followed by erosive mucosal disease (16.67%), peptic ulcer disease (9.52%) and Malory Weiss tear (4.76%).



Discussion:-

Upper gastro intestinal bleed is a common medical emergency with significant morbidity and mortality leading to high economic loss for the patient. This loss is even more if the hospital stays increases. In our study maximum (29.16%) patients were of age group 41-50 years, followed by 21.67% in the age group of 51-60 years. Age of patients ranged from 13 to 80 years with a mean age of 46.92 years. In a study done in Nigeria age ranged from 14 -75 years with mean of 41. years.¹³ A study done in Morocco in 2011 showed age of patients ranged from 12 - 100 years of age with a mean of 49 years.¹⁴ A male preponderance of cases (84.17%) was found in our study which resembled other studies done by M. Uddin et al (2008) with 88% male preponderance and Kashyap et al (2005) with 78.4%.^{15, 16} In our study the commonest clinical presentation was haematemesis and malaena (50%) followed by malaena (31.67%) and haematemesis alone (18.33%). Other studies also showed haematemesis & malaena as the commonest clinical presentation in UGIB. Kashyap et al (2005) reported 56.8% and M.Uddin et al showed 42% cases with both haematemesis and malaena.^{6,7} The commonest associated co-morbidity in UGIB was chronic liver disease (24.17%) followed by hypertension 8.33%, diabetes mellitus 3.33%, COPD (2.50%) and chronic kidney disease (1.67%). On upper GI endoscopy, peptic ulcer was found to be the most common cause of UGIB (54.16%). Most studies in different parts of the world show similar findings.Paik et al (2007) in Korea reposted 50.9% Kashyap et al (2005) showed 61% and Van Leer dam ME (2008) in Netherland reported 50%.^{17,16,18} In this study among peptic ulcer disease duodenal ulcer was 33.33% and gastric ulcer was 20.83%. Similar findings were reported by M Uddin et al (2008) duoderal ulcer 34% and C. Sugawa et al (1990) gastric ulcer 19%.^{15,19} Gastro esophageal varices was the second most common cause of UGIB in the present study (24.16%) and all patients had a history of alcohol intake of varying duration. Similar findings were also reported by A. Timraz et al (2011) 23% and Paik et al (2007) 28.3%.^{14,17} Gastroduodenal erosion was found in 14.17% of patients in this study. In other studies, Longstreth (1995) reported 14.3% and Faiza A Qari Showed 12% cases with gastroduoderal erosions.^{20,21} No source of bleeding could be identified in 2.50% cases in the present study, whereas Loren Laine et al mentioned that in 8-14% cases source of UGIB could not be identified.⁹Here, the result of rapid Urease test for Helicobaetor Pylori infection was found positive in 56.92% of peptic ulcer disease. H. pylori was found in 60.50% of duodenal ulcer, 48.00% of gastric ulcers and only 17.67% of cases with erosive mucosal disease. Van Leerdam Me (2005) reported H.pylori infection in 50% of patients with peptic ulcer disease.¹⁸ John Del valle (2008) in a compilation of data from three meta analysis reported the incidence of H.pylori infection in gastric ulcer as 30 to 70% and duodenal ulcer as 50-70%. The commonest associated risk factor was alcohol (35.82%) and steroids (3.25%) in patients with peptic ulcer disease and erosive gastroduodenal disease. Alcohol intake was found to be different in studies of different geographical areas ranging from 10% (A. Timraz, 2011) to 70% (Fiore et al, 2000).^{14,22} It was found that the earlier UGI endoscopy was done the better and conclusive were the results. The UGI endoscopy of patients done within 24 hours of admission were generally informative. Interestingly patients showing normal study were done more than 48 hours later as these patients presented in shock and it took time to stabilise them.

It depends on many factors like geographic distribution, religion, custom etc. Alcohol intake was found to be high probably because of taking traditional homemade alcohol and its association with local customs.

Conclusion:-

In this retro-spective study we found that UGI endoscopy is the most effective means for finding the etiology of UGI bleed and also the definitive tool if any active intervention is needed at the bleeding site. The efficacy of UGI endoscopy was best if done within 48 hours of bleeding. Most patients of bleeding were due to peptic ulcer disease. The 2ndmost common cause was due to rapture of oesophageal varix as a complication of ch. liver disease. Interestingly chronic alcoholism (with more than 2 pegs/day) was a very common factor in the patients of peptic ulcer disease and chronic liver disease. If alcoholism was a contributing factor in these patients of peptic ulcer disease could not be made out from this study. For that further prospective studies would be needed with more amount of participants.

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