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The Study of Etipathogenesis and Modalities of Management of Upper Gastrointestinal Bleeding.

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ABSTRACT

Upper gastrointestinal bleeding or haemorrhage[UGIB/UGIH} constitutes about 0.5% of all the cases of surgical and medical indoor admissions in the hospitals all over the world.The incidence is highest between the age group of 31 to 70 years with male preponderance in all the age groups. This study was undertaken to study in detail focussing the etipathogenesis, pathology, complications, investigation, treatment and complications of UGIB. Mortality in emergency surgical intervention is quite high, a careful alert and effective conservative management go along with in giving relief to majority of the cases of upper gastrointestinal bleeding.Prompt and efficient investigation and conservative treatment greatly reduce the morbidity and mortality of these patients.

Key words: UGIG/UGIH, etiopathogenesis, investigation, complications, treatment.

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INTRODUCTION

The incidence of bleeding from the upper gastrointestinal tract is very common worldwide irrespective of age groups. Upper gastrointestinal haemorrhage (UGIH) is the bleeding from any part of the gastrointestinal tract proximal to the duodenojejunal junction or the ligament of Treitz.It may manifest as haematemesis or melena or both. Sometimes it presents as hematochezia when the magnitude of bleeding is significant. Compared to lower gastrointestinal haemorrhage (LGIH), UGIH is more common. The occurrence of UGIH symptoms carries potential threat to life and demands prompt management. Patients rarely die from exsanguinations, rather they die due to decompenstion from underlying illnesses. The mortality rate for patients under 60 years of age is less than 1%. The three independent clinical predictors of death in patients hospitalized with UGIH are increasing age, comorbidities and hemodynamic compromise [1,2].

Peptic ulcers are the most common cause of UGIH accounting for about 50% of the cases, Mallory – Weiss tears accounting for 5 to 15% of the cases. The proportion of patients bleeding from varices varies widely from approximately 5% to 30% , gastroduodenal erosions account for 3% to 11%, erosive oesophagitis 2% to 8% and malignancy 1% to 4%, and in about 7% to 25% of the cases the source of the bleeding in not identified [3].

The frequency of bleeding is directly related to the duration of the disease. Chronic gastric ulcers are more likely to bleed early in their course than chronic duodenal ulcers. Haemorrhage from the ulcers is not always due to its penetration into the large blood vessels. Bleeding may occur from small congested vessels surrounding the ulcer or from the vessels in the granulation tissue in the floor of the ulcer formed only during the process of healing. In case in chronic gastric ulcer and chronic duodenal ulcer bleeding is usually due to erosion of a large branch of left gastric artery and gastroduodenal artery respectively.[4] Bleeding from oesophageal varices or gastric varices is a manifestation of portal hypertension, which in the vast majority of cases, is the result of cirrhosis of the liver. Approximately 70% of patients die within one year of first haemorrhage. 60% of the cirrhotics who have suffered on episode of UGIH rebleed within one year [2].

Carcinoma of stomach is relatively common throughout the world. It is the ulcerative type of carcinoma, which may bleed profusely. Kaposi's sarcoma may also present as UGIH, the incidence of which is increasing now-a-days in patients suffering from acquired immunodeficiency syndrome (AIDS).[2] The amount of bleeding varies from minor bleeding to massive haemorrhage leading to exsanguinations and death despite multiple transfusions.The study of haematocrit (Hct), haemoglobin (Hb%) percentage and red blood cell (RBC) count at intervals coupled with observation of the patients' general condition, pulse rate, blood pressure, respiratory rate furnishes an adequate index to the excellent of bleeding. The colour of the stool furnishes and adequate index to the extent of bleeding. The colour of the stool determines the rate of bleeding. Occult gastrointestinal bleeding may be identified in the absence of overt bleeding by special examination of the stool (Guaiac test) [2]. 400ml to 500 ml of bleeding in the stomach makes the stool look black [4].

The advent of flexible fibre-optic endoscopy is undoubtedly one of the most exiting advances in gastroenterology, which has afforded direct vision of the haemorrhage and revolutionized the diagnosis and management of UGIH [1].

The treatment of UGIH is a combination of medicoendosurgical management. Surgery being performed if the rate of bleeding becomes excessive or failure to control the bleeding by medical or endoscopic management [5].

Modalities of management mainly consist of conservative approach, therapeutic endoscopic approach, surgical management and prophylactic management. The modality of management to be used depends mainly upon the cause of bleeding, frequency of bleeding, amount of bleeding and site of bleeding.

Inspite of tremendous advancement made in the field of management of UGIH, the determination of the exact cause and source of bleeding at times remains obscure, which becomes herculean task for its management.Hence the present study was undertaken to to look into the deeper aspect to limit the mortality due to UGIB/UGIB.

MATERIALS AND METHODS

The present study was undertaken over the patients with the provisional diagnosis of upper gastrointestinal haemorrhage who are aged more than 15 years and who are presenting with the first episode of bleeding and admitted to the medical and surgical indoor of M.K.C.G. Medical College and Hospital, Berhampur, during the period inrecent 2-3years.

Detailed history of the cases were recorded at the time of admission with particular emphases on the etiological factors, made on onset, frequency, volume and duration of bleeding which manifested as haematemesis or meelan or both.

Investigations

Following investigations were done to confirm the source of bleeding, underlying diseases and the state of the patient.

Routine Examination

Routine examination of the blood, urine and stool.

- Blood – haemoglobin (Hb), total leucocyte count (TLC), differential count (DC), total red blood cell count (RBC), erythrocyte sedimentation rate (ESR), haematocrit (Hct), fasting blood sugar (FBS), serum urea, creatinine, serum electrolytes, bleeding time (BT), clotting time (CT), blood grouping (BG).
- Urine – macroscopy, microscopy, ketone bodies and bile pigments.
- Stool – macroscopy, microscopy and for occult blood.

Special Investigation

- Upper gasterointestinal endoscopy (UGIE)
- Ultrasonogram (USG) of the abdomen and pelvis
- Liver function test (LFT)
- Barium swallon and meal in selective cases
- Gastric acidity study (pH)
- Ascitic fluids analysis
- Histopathological study of the specimen removed after the definitive surgery.

Upper Gastrointestinal Endoscopy (UGIE)

The endoscopic examinations were done by video endoscope. Photographs of the interior of the upper gastrointestinal tract were taken in selective cases from the video screen after freezing the picture.

Biopsies were taken using spiked endoscopic forceps in selective cases, in suspected cases of malignancy biopsies were taken from about seven sites around the ulcer crater and in case of benign conditions biopsies were taken from the edge of the ulcer.

Each patient was explained about the productive before hand and informed consent was obtained in all the cases. The following routine was carried out in each case.

The patient was not allowed to take anything by mouth after 10pm prior to the day of endoscopy. In all patients lignocaine spary was given near the throat, after five minutes patient was intubated on the left side with the neck carefully flexed. The instrument is protected from the teeth by a mount guard and was passed over the back of the tongue in the midline under direct vision through the monitor into the oesophagus, with the advancement of the instrument, the interior of the oesophagus, stomach and duodenum were seen carefully and systematically. Intermittent suction of the secretions and insufflation of air to distend the lumen of the organ under examination was done better visualization. The highly flexible tip of the instrument was deflected at various angles to see the entire lumen. Any growth, ulcer and abnormal appearance of the mucosa were noted, photographs and biopsies of the lesions were taken.

Contraindications

There are no absolute contraindications to the procedure. Care should be taken in

- Uncooperative patients
- Patient with anatomical aberrations like extreme kyphosis, osteophytic spurs on bertebrae, Zenker's diverticulum, Thoracic aneurysm and oesophageal stenosis.
- Patients with cardiac pacemarks.
- Positive serology with hepatitis.
- Unstable patient like hypertension, respiratory distress, seizures or mechanical instability of the neck.
- Early post – operative period of Gl surgery.

- Patients with suspected perforation of the viscera.

Complications

Are rare in expert hand, they are due to

- Premedication and its related problems.
- Improper instrumentation.
- Associated other cardiac and respiratory disease.
- Extreme anatomical deformity.
- Improper cleaning or sterilization.

Complications include

- Perforation of theviscera
- Haemorrhage
- Respiratory distress
- Cardiac arrhythmias
- Infection

Endoscopic appearance of carcinoma stomach

Advance gastric adenocarcinoma of exophytic type usually provides no difficulty in tissue diagnosis. The mass type ulcerating carcinomas also provide no problem in diagnosis. But when the lesion is small or the look is benign or if it is an early gastric carcinoma diagnosis by endoscopic visualization is really difficult and challenging.

Diagnosis of Ulcers

Ulcer Creater

Comparatively bleeding of ulcer crater is a common finding in malignant ulcer.

Ulcer Shap

- An ulcer with an irregular margin is much more likely to be a malignant rather that benign.
- Assymetrical shape of an ulcer is a good discriminant of malignant ulcer.

Ulcer Edge

- A sharply demarcated edge is a feature of benign ulcer and a blurred edge is almost a sure sign of malignant ulcer.
- Small extensions and stepwise depressions of an ulcer edge are criteria for malignancy.

- Bleeding from an ulcer edge may be equally seen in both malignant and benign ulcer.

Margin

- It is steep and asymmetrical in malignant ulcers.

Folds

- Absence of folds is of no diagnostic importance.
- Folds reaching ulcer crater is as sing of benign ulcer.
- Severely disrupted folds is a high discriminator of malignant ulcer.
- Mildly disrupted folds mostly found in malignant ulcer but may occasionally be present in benign ulcer.
- Abnormal appearance is seen in most of the malignant ulcers.

Surroundings

- If the capillary ring is disrupted, it suggest the possibility of carcinoma originating in benign chronic ulcer.
- Nodules are suggestive of malignancy.
- Angular deformity and deformity opposite to the ulcer are features of benign ulcer.

Diagnosis

After thorough clinical examination assisted by the findings of the investigations, diagnosis was made and patients were treated accordingly.

Treatment

- Patients admitted with acute bleeding were managed initially with conservative method.
- In the group with oesophageal varices, sengsteken Blakemore trilumen tube was applied and in unresponsive patients injection therapy was used.
- Failure to arrest the bleeding in cases of peptic ulcers by conservative method were dealt with either endoscopy or surgery.
- In the group with gastric carcinoma with bleeding, definitive surgery such as polya gastrectomy with gastrojejunostomy (GJ) with jejunojejunostomy (JJ(, Bilroth I or palliative surgery i.e. antecolic GJ with JJ were done depending upon the site, size resectibility of the growth found on laparotomy.
- In those groups of patients where bleeding was not arrested by conservative method of treatment, they were subjected to endoscopic therapy and definitive surgery at a later date.

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RESULTS

The present study was carries out in the medical and surgical wards of M.K.C.G. MCH, Berhampur inrecent 2-3years. The patients who have been admitted with the symptoms of haematemesis or melena or both were included in the study. The observations were as follow:

Incidence

Total indoor admission in medical and surgical wars during the period of study	26,104
Total number of cases with UGIH	134

The above table shows that there were 134 cases of UGIH admitted to the surgical and medical wards during the period of study. In comparison to the total admission the incidence of UGIH was 0.5%.

Age and Sex incidence

The present study was conducted in individuals who aged more than 15 years and presented to the surgical or medical outdoor / casualty with clinical features suggestive UGIH.

Age and Sex Incidence

Age Group	Male	Percentage	Female	Percentage	Total	Percentage
<21	--	---	---	---	---	---
21-30	06	4.5	03	1.5	08	6.0
31-40	16	11.9	3	2.2	19	14.2
41-50	36	26.9	06	4.5	42	31.3
51-60	38	28.3	08	6.0	46	34.3
61-70	14	10.4	02	1.5	16	11.9
≥ 71	03	2.3	--	--	03	2.2
Total	113	84.3(n=134)	21	15.7(n=134)		

The above table shows the age and sex incidence majority of the patients fall into the age group between 31 to 71 years (91.6%). The mean age was about 50 years and the incidence was approximately 5 times more in males as compared to females. The youngest patient in the present series was aged 21 years and oldest 74 years.

Majority of the cases fall in to the age group between 31 – 70 years constituting about 104 out of 113 male patients (92%) and 19 out of 21 female patients (90.5%).

Socio – Economic Status

Socio – Economic Status	Number of Cases	Percentage
Poor Class	94	70.12
Middle Class	29	21.64
Higher Class	11	8.21%

Above table shows that UGIH was maximum in poor class (70%), next common was middle class (22%) and lastly higher class (8%).

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Modes of Presentation

Presenting Symptoms	Male	Female	Total	Percentage
Haematemesis (Frank Blood)	24	12	36	26.8
Haematemesis (Altered Blood)	58	07	65	48.5
Melena	91	19	110	82.1
Haematemesis & Melena	57	19	76	56.7

Melena was the most common manifestation ofUGIH and it occurred in 110 patients (82.1%) in the present series. Next it was the haematemesis which occurred in 101 patients (75.) and haematemesis with melena was seen in 76 patients (56.7%).

Other Symptoms

Symptoms	No. of Cases (n=134)	Percentage
Pain	75	55.9
Dizziness	38	28.3
Heart Burn	50	37.3
Vomiting	67	50.0
Anorexia	12	8.9
Weight Loss	10	7.4
Fainting	5	3.7

The above tables shows that 75 patients (55.9%) presented with pain in the upper abdomen followed by vomiting which accounted for 50%. Heart burn in 50 patients (37.3%). Dizziness in 38 patients (28.3%), anorexia in 12 patients (8.9%), weight loss was seen in 10 patients (7.4%) and fainting was seen in 5 patients (3.7%).

Signs

Signs	No. of Cases (n=134)	Percentage
Pallor	86	64.1
Tachycardia	49	36.5
Hypotension	27	20.1
Icterus	6	4.4
Ascitis	22	16.4
Caput medusa	6	4.4
Hepatomegaly	8	5.9
Splenomegaly	22	16.4
Lump in the epigastrium	8	4.4

Pallor is the which indicates an index towards the extent and gravity of haemorrhage. It was elicited by the examination of the conjunctiva tongue and palms. It was more marked in patients having repeated attacks of haemorrhage and melena. The above table shows the number of cases with pallor were maximum i.e. 86 cases (64.1%).

Tachycardia, the term depicted for all the cases having systolic B.P. less than 90 mm Hg and diastolic less than 60mm of Hg. It is an index to the extent and gravity of occurrence of haemorrhage and of impending shock. Hypotension was observed in 27 cases (20.1%). Icterus, manifests as yellowish discolouration of conjunctive or mucous membrane of soft palate, palm or skin, when the serum bilrubin rises more than 2 mg percent due to cirrhosis of the liver. It was notices in 6 patients (4.4%).

Ascites, is defined as the presence of free fluid in the peritoneal cavity and was diagnosed by eliciting the shifting dullness, fluid thrill and USG of the abdomen and pelvis in the present series ascites was observed in 22 patients (16.4%).

Caput medusa, is marked phenomenon is cases with portal hypertension. It was found in 6 patients (4.4%).

Other sings such as hepatomegaly was observed in 8 cases (5.9%), splenomegaly in 22 cases (16.4%) and lump in the epigastrium in 6 patients (4.4%).

Investigations

Routine investigations like Hb estimation, total RBC count, total WBC count, total platelet count, differential count, bleeding time and clothing time, blood grouping, Rh typing andserum for urea and creatinine, urine and stool macroscopic and microscopic examinations were conducted.

Special Investigations

Investigations	No. of Patients	Positive Results	Percentage
UGIE	122	106	86.8
USG abd & pelvis	65	20	30.7
Barium swallow & meal	15	7	46.6
LFT	65	16	24.6
Occult blood in stool	120	106	88.3

The advent of fibre-optic endoscope in undoubtedly one of the most exciting recent advances in gastroenterology and is markedly increased the diagnostic accuracy for UGIH, which is greater than 80%. The above table shows that UGIE was done in 122 patients of UGIH and it came to be positive in 106 patients (86.6%).

USG of abdomen and pelvis were done in 65 patients and the results were positive in the form of epigastric lumps and ascites in about 20 patients (30.7%).

Barium swallow x-ray were conducted in patients not suitable for endoscopy by means of liquid emulsifies barium sulphate to detect oesophageal varices, chronic gastric ulcer, gastric carcinoma and chronic duodenal ulcer. Out of 15 cases subjected for this investigation 7 cases (46.6%) were found to be positive. The liver is remarkable for its function. LFT was done in 65 patients and in 16 patients the results were abnormal. Occult blood in stool indicates bleeding into the gut to a degree insufficient to cause a color change of the stool. A blood of 20 – 50 ml leads only to Guiac positive stool. 120 patients were

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subjected for occult blood test and 106 patients (88.3%) were found to be positive.The clinical examination and investigation provide the clue towards the diagnosis of the underlying aetiology and the aetiological factors were noted below.

Aetiology With Relation To Age Group

Age Group	Sex	CDU	CGU	Erosive Gastritis & Oesophagitis	MW Syndrome	Gastric Carcinoma	GO Varices (Portal HTN)
<20	0	0	0	0	0	0	0
21-30	M	2	1	2	1	0	0
	F	1	0	1	0	0	0
31-40	M	4	2	5	3	0	2
	F	1	0	2	0	0	0
41-50	M	14	6	6	6	1	3
	F	3	1	2	0	0	0
51-60	M	19	8	4	2	2	3
	F	4	1	3	0	0	0
61-70	M	6	1	3	0	2	2
	F	2	0	0	0	0	0
≥ 71	M	2	0	0	0	1	0
	F	0	0	0	0	0	0
Total		58	20	28	12	6	10
Percentage		43.2	14.9	20.8	8.9	4.4	7.4

It was the chronic duodenal ulcer, which was found to be the most common cause of UGIH in the present series, these cases were 58 (43.2%) cut of 134 patients. Chronic gastric ulcer was found in 20 patients (14.9%). Thus the chronic peptic ulcer disease (60.6%) remained the most common causes of UGIH. Erosive gastritis with oesophagitis was found in 30 patients (20.8%). Erosive gastritis with oesophagitis ws found in 30 patients (20.8%). Mallory – Weiss tears were observed in 12 male patients (8.4%). Gastrooesphageal varices secondary to portal hypertension were found in 10 patients (7.4%) and gastric carcinoma was found in 6 patients (4.4%) which was the least common cause in the present series.

Thus, nonvariceal bleeding was observed in about 92% of the cases and in remaining 8% of cases the bleeding was secondary to gastrooesophageal varices.

MANAGEMENT

Immediately after admission, patients were resuscitated, out of 134 patients, initially 129 patients were treated conservatively and 5 patients were treated by emergency operation. Out of 129 patients 98 patients were responded to the conservative management and in the remaining 31 patients 6 patients were responded to endoscopic therapy and another 25 patients were operated electively on later date.

Initial Management

Type of Management	No. of Patients	Percentage
Conservative	129	96.3
Surgical (Emergency)	5	3.7

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Final Management

Type of Management	No. of Patients	Percentage
Conservative	98	73.2
Endoscopic sclerotherapy	06	4.5
Surgical (Elective)	25	18.6

Finally out of 134 cases, 98 cases (73.2%) were treated conservatively, 6 cases (4.5%) were treated endoscopically and 30 cases (22.3%) were treated surgically.

At the time of admission all the cases were treated medically with bed rest, sedatives, intravenous fluids therapy with NS, 5% glucose containing 30 mg of KCl, and nasgastric aspiration using Ryle's tube. Intermittent oxygen inhalation was give to the moribund patients. Blood grouping and rh typing was done and blood transfusions were given to the patients with hypovolemic shock. Intragastric antacids and styptics were also administrated.

Out of 10 cases of gastroesophageal varices, secondary to portal hypertension, 4 cases responded to pharmacological therapy and in remaining 6 cases sclerosing agent (absolute alcohol) were injected endoscopically. And in all the cases of gastroesphageal varices propranolol was given to prevent rebleeding.

And in all cases of peptic ulcer disease H. pyloric kit which consist of a PPI, metronidazole or tinidazole and amoxicillin or clarithromycin was given for 2 weeks following recovery from the primary episode to prevent recurrence of the disease.

30 cases (22.3%) were treated surgically. The operation was elective in 25 cases (83.3%, n=30) and emergency in 5 cases (16.7%, n=30). Elective operations were performed in a later date after the bleeding stopped by conservative management. Emergency operations were performed where bleeding was uncontraollable or non – operative treatment because unreasonable due to serverity of the haemorrhage and also in the elderly age group, who can not withstand the blood loss due to haemorrhage resulting in hypovolaemic shock.

In these two groups, truncal vagotomy with gastrojejunostomy was the most commonly performed surgery.

Surgical Management

Sl. No.	Type of Operation	No. of Cases	Percentage
1	Truncal vagotomy + Retrocolic GJ.	13	43.3
2	Poly Gastrectomy	6	20.0
3	Underrum of Ulcer + Retrocolic GJ.	4	13.3
4	Gastroduodnostomy.	2	6.7
5	Anticolic GJ + JJ	3	10.0
6	Underrum of ulcer + truncal vagotomy + rectrocolic GJ	2	6.7

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Complications Following Surgery

Complication	No. of Patients n=30	Percentage
Wound infection	2	6.7
Duodenal Blowout	2	6.7

Following surgery, in the postoperative period wound infections were noticed in 2 patients and duodenal blowout in patients (emergency group) were recovered later without second look operation.

Mortality

Type of Management		No. of Cases	No. of deaths	Percentage
Conservative		98	10	10.2 (n=98)
Endoscopic Therapy		6	0	0
Surgical	Elective	25	2	8 (n=25)
	Emergency	5	2	40 (n=5)
Total		**134**	**14**	

98 patients were subjected to conservative management and ten patients were died and hence the mortality rate in the conservative group was 10.2%. Six patients were managed endoscopoically and none of the patients died.

30 patients were managed surgically, 25 cases were treated by elective surgery and 5 cases were by emergency surgery. In the elective group 2 patients were died and so as in the emergency group. The mortality rate in the elective group was 8% (n=25) and in the emergency group it was 40% (n=5). Overall mortality in the surgical group was 13.3% (n=30). Out of 134 patients, 14 patients were died and hence the total mortality rate in the present series was 10.4% (n=134).

DISCUSSIONS

Upper gastrointestinal haemorrhage manifests either as frank haematernesis or melena or both, and sometimes it may manifests with other features like anorexia, heartburn. This work was undertaken to study upper gastrointestinal haemorrhage particularly with respect to its etipathogenesis and modalities of management available to manage the respective cause. In the present series the incidence of upper gastrointestinal haemorrhage was 134 cases per 261104 admissions i.e. 0.5%. The available data by Rockal TA (1995) et al shows the overall incidence of upper gastrointestinal haemorrhage was 103/Lakh adults per year. Here our data showed more than that of the data available as we had taken the data of a selective group. Nortan et al (1995) showed 55 out of 10573 patients (0.5%) suffered a major upper gastrointestinal haemorrhage which is equal to results of the present study.

In the present series 66% of the cases were with the age group from 41 to 60 years and the present and the present data nearly tallies with available data of Atoba et al (1993) which showed 71.4% patients were between their 4^{th} to 6^{th} decades of life. Present data

showed male preponderance, with male : female ratio of 5.3:1. Study by Minofugaroles G et al showed male to female ratio to be 2.666:1 [6,7]. Malu A et al studied the male to female ratio to be 3:1.

Present study showed the incidence was more in poorer class. In developing countries like India, the incidence of Helicobater pylori is very high in people who belong to low socio economic group because of poor personal hygiene and nutritional deficiencies.

Present study showed haematemesis and melena in 56.7% of patients and only melena in 82.1% of patients and was compared with the data given by Minofugarolas G which was 56% and 44% respectively. Present data partly equivalent to the author's. One important feature noticed in those patients who came only with haematemesis was that, invariably they present early and treatment therefore be started early and hence the prognosis was good.

Most of the cases presented with pain followed by vomiting and heart burn and 10 cases (7.4%) with weight loss. On examination of the patient, pallor (64.1%) was notices in maximum number of patients followed by tachycardia (36.5%) and hypotension (20.1%). Ascites was found in 16.4% of patients. Tachycardia, hypotension and low haemoglobin (<8gm%) at the time of admission were all correlated with poor outcome.

In our study upper gastrointestinal endoscopy showed the accuracy of diagnosis in 86.8% of cases where as Lule GN et al observed 93% positive endoscopic diagnosis of the patients he studied. Vreeburg EM et al (1994), showed 85% accuracy which is near to study [8].

In the etiological study we got chronic duodenal ulcer in 43.2% of cases, chronic gastric ulcer in 14.9%, erosive gastritis and oesophagitis in 20.8%, Mallory – weiss syndrome in 8.9%, gastrooesophageal varices in 7.4 % and carcinoma stomach in 4.4% of cases. The bleeding in erosive gastritis and oesopohagitis may be due to indiscriminate and injudicious use of NSAIDs in the rural areas by the village quacks. Otherwise the present data tallies the data given by Banerjee ST et al. Their study showed 66.6% of the total cases studied were due to acid peptic disease, out of which duodenal ulcer was notices in 45% and gastric ulcer in 21.6%. 5% of all the cases were having portal hypertension was seen in 3% and in about 6% of the cases bleeding was due to acute gastritis [9]. In the present study total acid peptic ulcer bleeding was 58%.

According to Minofugarolas G et al the aectological findings were peptic ulcer in 54.3%, Oesophageal and gastric varcies in 10.7% and acute lesions of the gastric varcies in 10.7% and acute lesions of the gastric mucosa in 6.7% and aetiology could not be established in 8% of the cases. In all studies it was found peptic ulcer bleeding was the maximum. But the study by Lule GN et al had different kind of results. He showed bleeding due to oesophageal varices in 35% which was maximum, duodenal ulcer in 17.5% patients and superficial inflammatory lesions in 17.5% and another 17.5% had multiple lesions with superficial inflammation.

None of the workers previously emphasized on the aetiological diagnosis because whatever may be the cause, the blood loss had to be checked, circulatory blood volume had to be maintained, shock had to be counteracted in order to save the life. For the purpose of checking the haemorrhage it became necessary to find out the exact source, so that instead of generalized or arbitrary approach, rational treatment could be employed to check the haemorrhage immediately.

In the present work, conservative treatment was carried out in 98 patients (73.2%) patients. 6 patients (4.5%) were managed endoscopically and operation for haemorrhage was done in 30 (22.3%) patients. This shows that the necessity of operation was almost one in every 3 cases. Vreeburg EM et al, confirmed 85% cases by endoscopy and out of that, conservative treatment was given to 86%, 20% underwent endoscopic (injection) therapy) and only 17% were operated on. This study in near to our data.

All the patients admitted with haemorrhage were managed conservatively by supportive measures like blood transfusion, intravenous fluids, sedatives, nasogastric aspiration as and when necessary. Emergency surgery was undertaken in those patients who did not stop bleeding by conservative means. Sargeant et al showed 25 patients (61%) required minimal or no transfusion after treatment and nine (22%) whose bleeding was controlled initially, later developed recurrent bleeding which was controlled further with laser. Surgery succeeded in a 3 patients (7%) in whom laser had failed [10].

Present study showed elective surgery in 18.6% and emergency surgery in 3.7%, most of the patients undergone trunkal vagotomy with GJ and polya gastrectomy next. All the emergency cases undergone polya type or operation and the emergency operations were done in elderly patients. Anand et al operated 112 cases, the type of operations were Bilroh I gastrectomy. Trunkal vagotomy + under run of the bleeding point, transthoracic and transgastric variceal ligation where the mortality was 5.7%.

In the present series the over all mortality rate was 10.4%. Mortality rate in patients who were treated conservatively was 10.2%. It was due to heavy bleeding, non availability of adequate amount of rare blood type, heavy bleeding and presence of other comorbid conditions like chronic bronchitis and other respiratory tract infection tract infection and cardiovascular problems and delay in coming to the hospital.

After surgical management two deaths were observed in the emergency group and so as in the elective group and so as in the elective group and the overall mortality rate in surgical group was 13.3% (n=25) in elective group and 40% (n=5) in the emergency group. 3 deaths were due to sudden myocardial infarction during surgery and another one was due to acute exacerbation of chronic bronchitis. Present study nearly tallies with the study of Rockall TA et al where the overall mortality was 14.3%.

Out of 134 cases, 14 patients died in the hospital while under treatment and the remaining patients recovered.

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CONCLUSION

- Upper gastrointestinal haemorrhage constitutes about 0.5% of all the cases of surgical and medical indoor admissions and the incidence is highest between the age group of 31 to 70 years with male preponderance in all the age groups.
- Chronic peptic ulcer is most common etiological factor followed by erosive gastritis, chronic gastric ulcer, Mallory – Wiess tears, oesophageal varices and carcinoma stomach. Oeasophagogastroduodenoscopy in the single most effective diagnostic as well as therapeutic tool.
- Prompt and efficient investigation and conservative treatment greatly reduce the morbidity and mortality of these patients. Though the mortality in emergency surgical intervention is quite high, a careful alert and effective conservative management go along with in giving relief to majority of the cases of upper gastrointestinal haemorrhage.
- Effective and early consertive management helps is treating most of the cases successfully. Nearly 20 % of the cases needs surgical intervention.
- Though it is emphasized that conservative treatment is life saving in the initial phase, the role of timely endoscopy and surgical procedure cannot be undervalued as it gives permanent solution for the upper gastrointestional bleeding patients.

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