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## RESEARCH ARTICLE

### ENDOSCOPIC EVALUATION OF 100 CASES OF GASTRO INTESTINAL BLEEDING .

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##### Manuscript History

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#### Abstract

Upper gastrointestinal bleeding (UGIB) is one of the surgical emergencies<sup>1</sup>. The etiological spectrum of gastrointestinal bleeding is diverse and variable from one geographical area to another. Earlier barium meal used for study of UGIB which has its own drawbacks . Now upper GI scopy used as diagnostic too<sup>2</sup>.

**Aims And Objectives:-** Study the endoscopic evaluation and management of upper gastrointestinal bleeding in our college (Ks Hegde hospital)

**Methods:-** A cross sectional study of 100 cases of upper GI bleeding who are admitted in Justice K S Hedge Charitable Trust between October 2014 to October 2016

**Results:-** A Total of 100 patients who underwent upper GI scopy during the period. The patients range in age from 18 to 80, Mean age is 50.5 years .Median 52 years. Out of 100 patients lesions found in 95% patients. Majority of patients are presented with haematemesis (76%) .Oesophageal varices secondary to alcoholic cirrhosis of liver were the most frequent cause of upper GI bleeding followed by PUD. Cirrhosis is the main etiological factor of upper GI bleed in this study (p value – 0.0001) . Esophagus is the most common site of bleeding in this study. In the present study, endoscopic management was the one of the main modality of treatment in 40% of the total patients, consisting of banding (40%). Rest of the patients (57%) were managed conservatively with medical therapy, 3% of the patients were treated surgically.

##### Conclusion:-

- Endoscopy is essential in the initial evaluation and management of upper gastrointestinal bleeding. In this study UGI endoscopy provided accurate diagnosis in 95% of Patients.
- The most common cause of UGI bleeding was oesophageal varices secondary to cirrhosis of liver with portal hypertension. Therapeutic endoscopy was useful in 40% of patients. No complications were encountered during after Endoscopy.
- UGI endoscopy serves its best role in the diagnosis of UGI bleeding and in therapeutic

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## Introduction:-

In modern surgery, Esophago-gastro-duodenoscopy (EGD) is an important tool to visualize the upper part of the gastrointestinal tract up to the duodenum<sup>1</sup>. It is considered a minimally invasive procedure since it does not require an incision into one of the major body cavities and does not require any significant recovery after the procedure (unless sedation or anaesthesia has been used)<sup>3</sup>. Endoscopy is useful in assessing a variety of pathologies. It is used not only as a diagnostic but also a therapeutic tool. Various procedures like variceal band ligation, sclerotherapy, biopsy and hemostasis of bleeders can be achieved in the same sitting. It has indeed become a cost effective and reliable tool to modern surgery.

## Aims And Objectives:-

Study the endoscopic evaluation and management of upper gastrointestinal bleeding at KS Hegde hospital, Deralakatte, Mangalore.

## Methodology:-

### Source of Data:-

The patient admitted in our KS Hegde hospital with the history of any upper gastrointestinal bleed from will be taken up for the study

**Study period:-** October 2014 to October 2016

**Sample size:-** 100 cases

**Study method:-** Descriptive cross sectional study

**Statistical analysis:-** Collected Data was analysed by frequency ,percentage, Statistical analysis was derived by performing binomial, chisquare test and Fischer exact test

Pvalue of <0.05 was considered to be significant

## Method Of Collection Of Data:-

- As soon as the patient is admitted a detailed history regarding nature of bleeding whether it has ceased at the time of admission and the time since the onset will be recorded.
- The patients will also be interrogated regarding symptoms of nausea, vomiting, dysphagia, regurgitation, heart burn, abdominal pain, appetite, weight gain or loss and recent changes in bowel habits prior to the bleed.past history of ingestion of drugs over the preceding 48 hrs and frequent ingestion over the preceding months will be enquired about and previous histories of cardiovascular, respiratory, liver diseases will be thoroughly evaluated
- habit of consumption of alcohol by the patient
- Examination of the abdomen for any area of tenderness, palpable masses, ascites and rectal examination will be carried out.
- Based on clinical data obtained a provisional diagnosis will be made.
- These patients will be then submitted to oesophagogaastro duodenoscopy using a fiberoptic instrument

## Inclusion Criteri:-

All types of upper GI Bleeds admitted in KSHEMA Hospital

## Exclusion Criteria:-

Age below 18

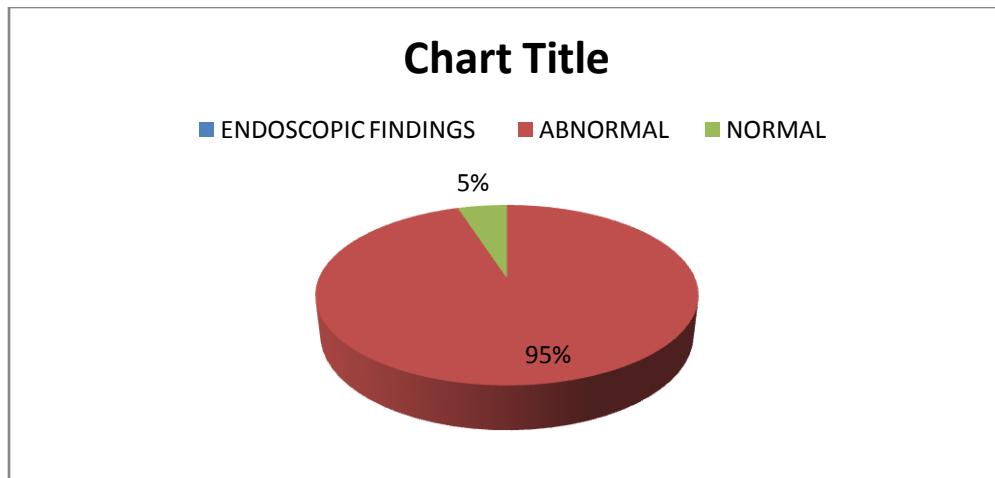
Patients who are not willing

## Results:-

**Table 1:-** Disturbtion Of Endoscopic Findings.

Endoscopic findings	cases	%
Abnormal	95	95
Normal	5	5

**Binomial test,p =0.0001 HS**



**Figure 1:-** Disturbtion Of Endoscopic Findings

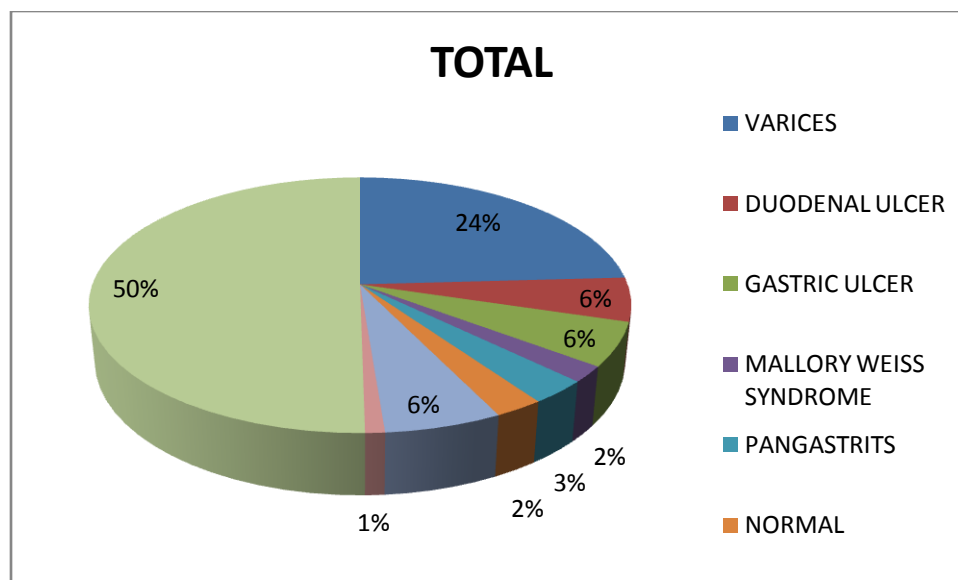
In this out of 100 cases, 95% patients shows abnormality in endoscopic findings, WHICH IS STATISCALLY HIGHLY SIGNIFICANT COMPARED TO 5% Patients there are no findings found.

**Table 2:-** Disturbtionof Endoscopic Findings According To Causes

DISEASE	TOTAL	FREQUENCY
VARICES	48	48%
DUODENAL ULCER	11	11%
GASTRIC ULCER	11	11%
MALLORY WEISS SYNDROME	4	4%
PANGASTRITS	6	6%
NORMAL	5	5%
EROSIONS	12	12%
Malignancy	3	3%
TOTAL	100	100%

Chi Square= 111.2, P= 0.0001 ,Hs

In this out of 100 patients , endoscopic findings are varices in 48% which is the highest followed by duodenal ulcer (11%) and gastric ulcer(11%) ,Mallory weiss tear seen in 4% , pangastritis in 6% and erosions in 12% and malignancy noted in 3%.



**Fig 2:-** Distribution Of Endoscopic Findings According To Causes.

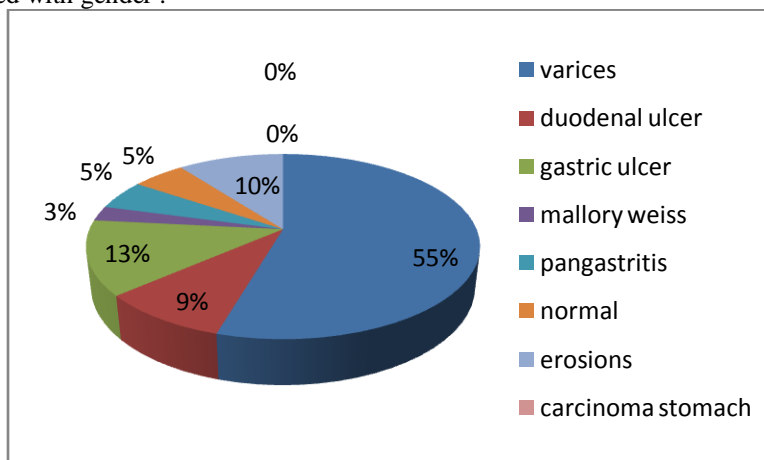
**Table 3:-** Distribution Of Endoscopic Findings According To Sex

ETIOLOGY	MALE	FEMALE	TOTAL
VARICES	42	6	48
DUODENAL ULCER	7	4	11
GASTRIC ULCER	10	1	11
MALLORY WEISS SYNDROME	2	2	4
PANGASTRITS	4	2	6
NORMAL	4	1	5
EROSIONS	8	4	12
MALIGNANCY	0	3	3
TOTAL	77	23	100

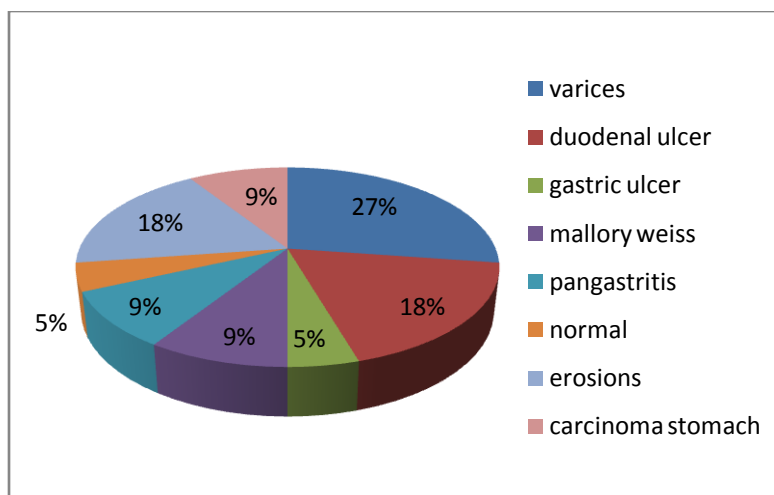
Fischers Exact Test,  $P = 0.0007$ , HS

In this out of 100 cases 77 are male and 23 are female. Most common endoscopic finding in male are varices(42%) followed by erosions(8%).

In female most common endoscopic finding is varices(6%) followed by duodenal ulcer(4%). Presence of endoscopic findings are associated with gender .



**Fig 3.1:-** Distribution Of Cases According To Sex (Male)



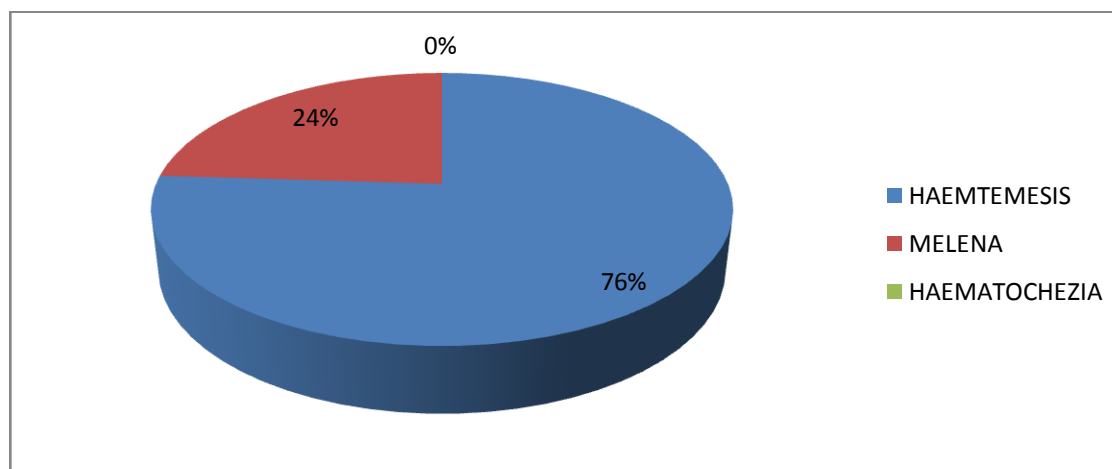
**Fig. 3.2:-** Distribution Of Cases According To Sex (Female)

**Table 4:-** Distribution Of Patients According To Presenting Symptoms

SYMPTOMS	CASES
HEMTEMESIS	76 (76%)
MELENA	24(24%)
HEMATOCHEZIA	0

BINOMIAL TEST, P= 0.0001,HS

In this out of 100 patients more number of patients 76 are presented with hemtemesis followed by melena (24%) and no patients complained of hematochezia. HENETEMESIS IS A SIGNIFICANT PRESENTING SYMPTONS COMPARE TO OTHER



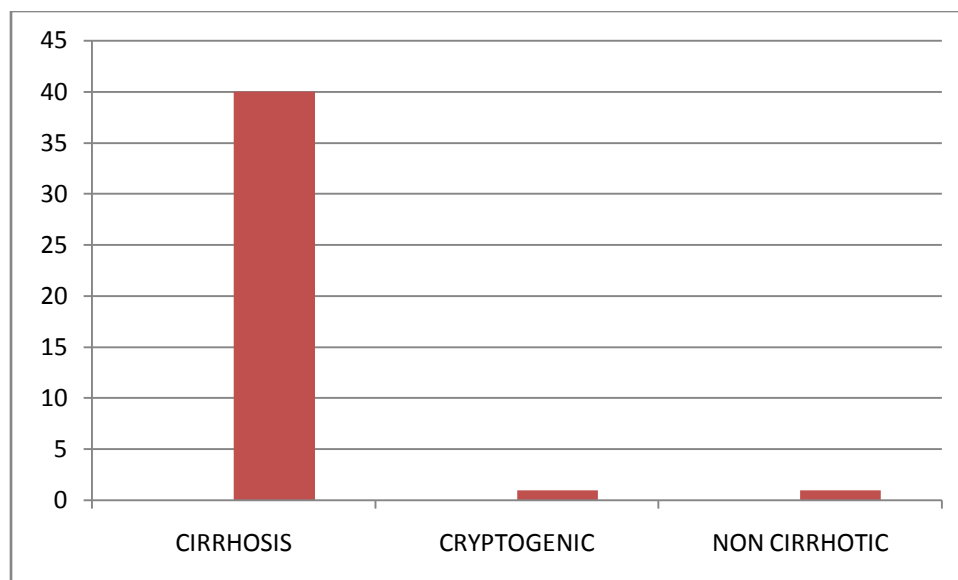
**Fig 4:-** Distribution Of Patients According To Presenting Symptoms.

**Table 5:-** Distribution Of Patients According To Etiology Of Portal Hypertension

S.NO	ETIOLOGY	%
1	ALCHOLIC CIRRHOSIS	46 95%
2	CRYPTOGENIC	1 0.02%
3	PERIportal FIBROSIS	1 0.02%

Chisquare =40.33, P=0.0001, Hs

Alcholic Cirrhosis Is Significantly Higher Etiology Compare To Others.



**Fig 5:-** Distribution Of Patients According To Etiology Of Portal Hypertension.

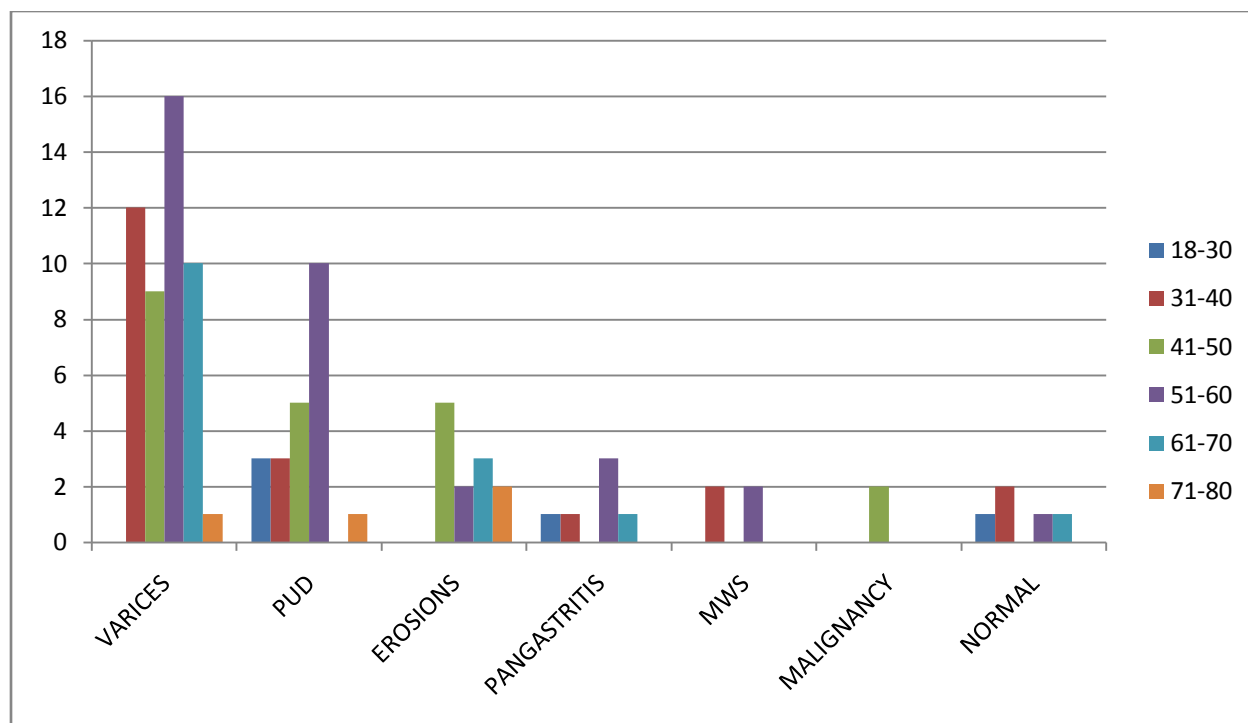
**Table 6:-** Distribution Of Patients According To Age.

AGE	VARICES	PUD	EROSIONS	PANGASTRITIS	MW	CARCINOMA STOMACH	NORMAL
18-30	-	3	-	1	-	-	1
31-40	12	3	-	1	2	-	2
41-50	9	5	5	-	-	2	-
51-60	16	10	2	3	2	-	1
61-70	10	-	3	1	-	-	1
71-80	1	1	2	-	-	-	-
TOTAL	48	22	12	6	4	2	5

Fischers Exact Test=0.0008, HS

In this age is ranged between 18-80 years, more number of patients are at range of 51-60 , In that variceal bleed are more in range of 51-60 followed by 31-40 and then 61-70, ulcers are more common in range of 51-60 (10) followed by 41-50.

Age association is observed.



**Fig 6:-** Distribution Of Cases According To Age

**Table 7:-**Disturbtion Of Endoscopic Findings According To Cirrhosis.

ENDOSCOPE FINDINGS	Cirrhosis present	Cirrhosis absent
Varices	48	-
Duodenal ulcer	-	11
Gastric ulcer	-	11
Mws	-	4
Pangastritis	-	6
Erosions	-	12
Malignancy	-	3
Normal	-	5
Total	48	52

**Fischers Exact Test,  $P = 0.0001$ , Hs**

Varices Is Significantly Associated With Cirrhosis

**Table 8:-** Disturbtion Of Endoscopic Findings According To Alchol

ENDOSCOPE FINDINGS	Alchol present	Alchol absent
Varices	46	2
Duodenal ulcer	11	-
Gastric ulcer	11	-
Mws	2	2
Pangastritis	2	4
Erosions	11	1
Malignancy	-	3
Normal	-	5
Total	83	17

**Fischers Exact Test,  $P = 0.0001$ , Hs**

Alchol Is Significantly Associated With Varices , Ulcer, Erosions.

**Table 9:-** Disturbtion Of Endoscopic Findings According To Nsaids.

ENDOSCOPIC FINDINGS	NSAIDS PRESENT	NSAIDS ABSENT
Varices	-	48
Duodenal ulcer	-	11
Gastric ulcer	-	11
Mws	2	2
Pangastritis	4	2
Erosions	1	11
malignancy	-	3
Normal	-	5
total	7	93

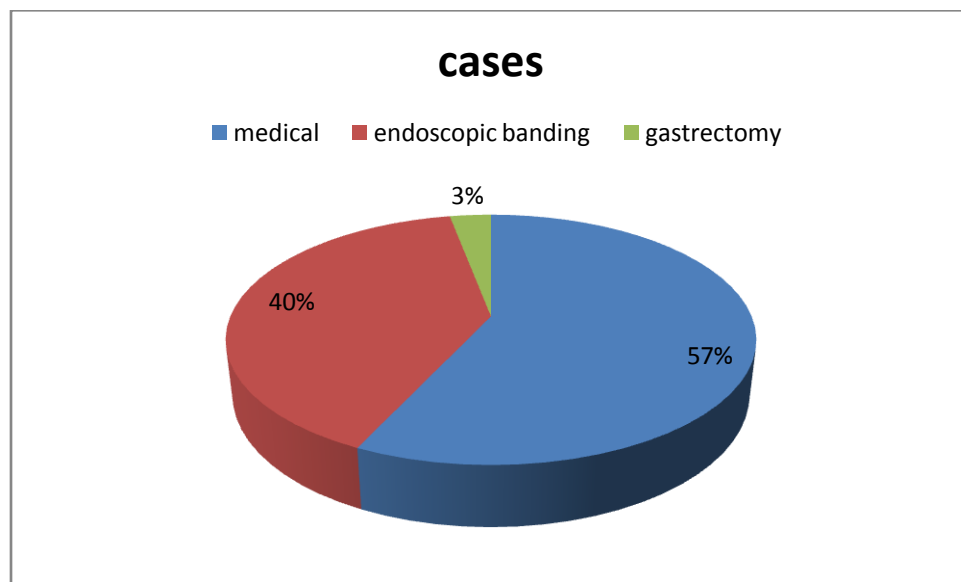
Fischers Exact Test,  $P=0.0001$ , Hs

Nsaids Are Associated Significantly With Pangastritis And Mws

**Table 10:-** Disturbtion Of Cases According To Treatment.

s.no	Treatment	Cases
1	Medical	57(57%)
2	Endoscopic banding	40(40%)
3	gastrectomy	3(3%)

In this study out of 100 cases 57 are treated conservatively ,40 are treated by endoscopic banding and gastrectomy in 3 patients, endoscopy not only help in diagnosing but also by its therapeutic role

**Fig 10:-** Disturbtion Of Cases According To Treatment**Table 11:-** Disturbtion Of Endoscopic Findings According To Site.

Endoscopic Findings	Esophagus	Stomach	Duodenum
Varices	44	4	-
Ulcer	-	11	11
MWS	4	-	-
Pangastritis	-	6	-
Erosions	-	12	-
Malignancy	-	3	-
Total	48	36	11



In this study, in total of 100 cases in 48 patients site of bleeding is esophagus ,in that most common cause of bleeding varices 44% and in 36% patients stomach is site of bleeding followed by duodenum 11%

**Table 12:-** Varices Types.

VARICES	CASES	%
FUNDAL	4	8.7
ESOPHAGEAL	42	91.3
BOTH	0	0

### Discussion:-

Upper GI bleeding is one of the emergency conditions to admit in surgical intensive care unit. Upper GI scopy is the important procedure to evaluate all kinds of upper GI bleed.It is done by standard gastroenterologist to subside diagnostic error .

In this study the commonest cause of upper GI bleed was esophageal varices seen in 48% of the patients and was secondary to cirrhosis with portal hypertension. But study conducted by Croock<sup>5</sup> et al shows the peptic ulcer disease as commonest cause of upper GI bleed, other causes were extra hepatic portal hypertension.

In the present study consisting of total 100 patients major were presented with upper GI bleed. In this study males were 77%, whereas females were 23%. The median age was 31-40. In study conducted by Hyasinta Jaka<sup>4</sup> et al majority were males 73% and females 26.6% and median age was 52 years .

In the present study alcohol was commonest precipitating factor for cirrhosis of liver and remained as main etiology of upper GI bleed In this study cirrhosis of liver is main cause of upper GI bleed(P value-0.0001). This study shows the value of endoscopy in upper GI bleed as not only a diagnostic tool but also helped in therapeutic intervention especially in patients with variceal bleed. In the present study, endoscopic management was the one of the main modality of treatment in 40% of the total patients, consisting of banding (40%). Rest of the patients (57%) were managed conservatively with medical therapy, 2% of the patients were treated surgically. whereas, in the study done by Hyasinta Jaka et, al; majority of the patients (60.8%) were treated conservatively and endoscopic and surgical treatments were performed only in 30.8% and 5.8% of cases respectively

Most of the non-variceal bleeding in upper GI was amenable to conservative medical management.

This study highlights the value of endoscopy both as a diagnostic and therapeutic tool in the management of all upper GI bleed.

In this study stomach is common site of bleeding followed by esophagus and duodenum., In study made by Libyan<sup>6</sup> esophagus is most common site of bleeding.

### Conclusion:-

- Endoscopy is essential in the initial evaluation and management of upper gastro intestinal bleeding.
- In this study UGI endoscopy provided accurate diagnosis in 95% of Patients
- The most common cause of UGI bleeding was oesophageal varices secondary to cirrhosis of liver . Therapeutic endoscopy was useful in 40% of patients. No complications were encountered during / after Endoscopy.
- The most common site of bleeding is stomach in my study
- UGI endoscopy serves its best role in the diagnosis of UGI bleeding and in therapeutics.

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