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PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3597900>Available online at: <http://www.iajps.com>**Research Article****FREQUENCY OF GATRO OESOPHAGEAL VARICES IN  
LIVER CIRRHOSIS****Anaza Nisar, Sadia, Ramsha Aabroo Sherdil****Article Received:** November 2019 **Accepted:** December 2019 **Published:** January 2020**Abstract:**

**Objective:** To determine the frequency of gastro esophageal varices in patients presenting with liver cirrhosis. **Subject and Methods:** This was a Cross sectional study conducted at multicenter, Medical departments. In this study there were 300 cases of liver cirrhosis enrolled over the period of January 2018 to December 2018 between the ages of 30 to 60 years of any gender. The diagnosis of liver cirrhosis was made by the presence of clinical signs and symptoms with ascites, jaundice, splenomegaly, decreased serum albumin, prolonged PT and decreased liver size on USG abdomen. The detailed socio demographic data and clinical information was taken and recorded. These cases then underwent Upper GI endoscopy. The varices of at least grade II or more were considered. **Results:** Out of total 300 patients in present study, there were 174 (58%) males and 126 (42%) females with mean age of  $52.24 \pm 4.45$  years. Gastro oesophageal varices (GOV) of grade II or more was seen in 143 cases (47.67%). GOV was seen in 83 males (47.16%) and 60 females (48.39%) out of their respective groups with  $p = 0.95$ . GOV were maximum seen in age group of 46-60 years affecting 129 (59.18%) cases ( $p = 0.02$ ). GOV were significantly high seen in cases with child pugh class C having in 66 (84.62%) as compared to 20 (16.67%) in class A with  $p = 0.001$ . **Conclusion:** Liver cirrhosis is common in developing countries like Pakistan. Complications like OGV are common and are significantly associated with higher age and Child pugh class C.

**Key Words:** GOV, Liver cirrhosis, portal hypertension.

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**INTRODUCTION:**

Liver Cirrhosis is described as the chronic inflammatory and necrotizing condition in which the hepatic parenchyma is damaged and lead to progressive and diffuse fibrosis. This leads to distortion of the liver structure and ultimately leading to a range of complications; few are associated with its structural damage and the others with its functional loss.<sup>1</sup>

Liver cirrhosis poses a great health burden in terms of morbidity and mortalities. Gastro intestinal (GI) bleeding, portal hypertension, hepatic encephalopathy, sub acute bacterial peritonitis, hepato renal syndrome (HRS), ascites etc. are frequently encountered complication. Portal hypertension is defined as raised pressure in the portal vein of at least 5 mm Hg or more in the portal vein as compared to the inferior vena cava.<sup>2-3</sup>

Upper GI bleed can be life threatening. It can either be due to gastritis and peptic ulcer in cases with chronic liver disease or there might be an underlying portal hypertension, that adds to increase pressure in the collateral vessels and formation of gastro oesophageal varices. The varices can be diffuse or isolated gastric only. They are also divided into grade I to IV depending upon their severity by physical appearance of tortuosity on the gastroscopy. There are multiple options like band ligation, Sclerotherapy to treat it and pharmacological drugs to lower down the portal pressure to decrease the formation and recurrence rate of the varices formation in cases of cirrhosis.<sup>4-6</sup>

**OBJECTIVE:**

To determine the frequency of gastro esophageal varices in patients presenting with liver cirrhosis.

**MATERIAL & METHODS:**

This was a Cross sectional study conducted at multicenter, Medical departments. In this study there were 300 cases of liver cirrhosis enrolled over the period of January 2018 to December 2018 between the ages of 30 to 60 years of any gender. The diagnosis of liver cirrhosis was made by the presence of clinical signs and symptoms with ascites, jaundice, splenomegaly, decreased serum albumin, prolonged PT and decreased liver size on USG abdomen. The detailed socio demographic data and clinical information was taken and recorded. These cases then underwent Upper GI endoscopy. The varices of at least grade II or more were considered. The data was entered and assessed on SPSS version 17.0. chi square test was used to see for significant and p values less than 0.05 was taken as significant.

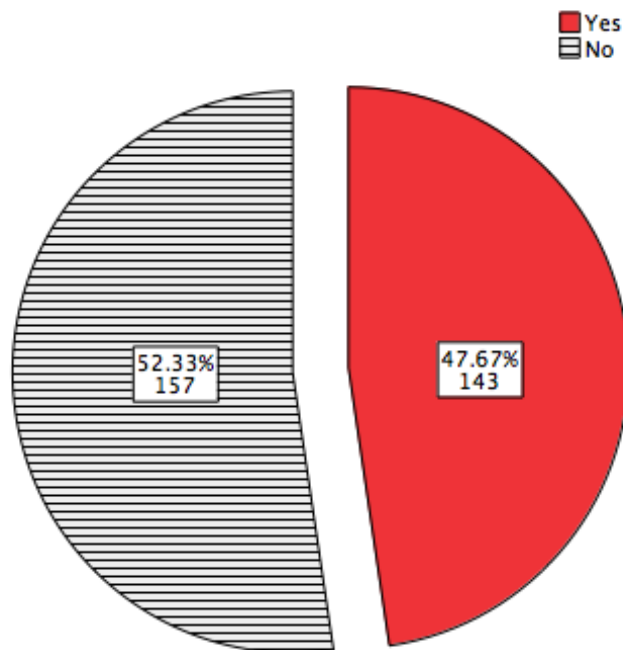
**RESULTS:**

Out of total 300 patients in present study, there were 174 (58%) males and 126 (42%) females with mean age of  $52.24 \pm 4.45$  years. There were 120 (40%) cases falling in Child Pugh class C and 102 (34%) in Class B and 78 (26%) in class A as in table 1. Gastro oesophageal varices (GOV) of grade II or more was seen in 143 cases (47.67%) as shown in figure 1. GOV was seen in 83 males (47.16%) and 60 females (48.39%) out of their respective groups (table 2) with  $p=0.95$ . GOV were maximum seen in age group of 46-60 years affecting 129 (59.18%) cases ( $p=0.02$ ) as in table 2. GOV were significantly high see in cases with child pugh class C having in 66 (84.62%) as compared to 20 (16.67%) in class A as in table 3 with  $p=0.001$ .

**Table 01 : Study variables**  
n= 300

VARIABLES	Numbers	%
Male	174	58
Female	126	42
Chile pugh class A	120	40
Chile pugh class B	102	34
Chile pugh class C	78	26

**Figure 1: Gastro oesophageal varices in cases with liver cirrhosis  
n= 300**



**TABLE 2: GOV WITH RESPECT TO DEMOGRAPHIC VARIABLES  
n= 300**

Gender	GOV		Total	Significance
	Yes	No		
Male	83 (47.16%)	93 (52.84%)	176	p= 0.95
Female	60 (48.39%)	64 (62.94%)	124	
Age groups	GOV		Total	Significance
	Yes	No		
30-45	14 (17.07%)	68 (82.93%)	82	p= 0.02
46-60	129 (59.18%)	89 (40.82%)	218	

TABLE 3: GOV WITH RESPECT TO CHILD PUGH CLASS

Child Pugh class	GOV n= 300		Total
	Yes	No	
A	20 (16.67%)	100 (83.33%)	120 (60%)
B	57 (55.88%)	45 (44.12%)	102 (40%)
C	66 (84.62%)	12 (15.38%)	78 (100%)

p= 0.001

### DISCUSSION:

Liver Cirrhosis is the an irreversible condition of liver damage and it reported in top 10 causes of death in unites States and their number is even higher in developing countries like Pakistan. Gastro oesophageal varices are one of the most dreadful complications as any bleeding event can be fatal if aggressive steps are not taken at the right time, so treatment is always necessary, especially regarding its prevention.

Gastro oesophageal varices (GOV) of grade II or more was seen in 143 (47.67%) out of 300 cases in the present study. This was close to the study done by Svoboda et al that found these GOV in 62% of their cases.<sup>7</sup> However in a study done by D'Amic it was seen as high as in 72% of cases.<sup>8</sup> The higher results of GOV in their study might be due to difference in inclusion criteria as they had more cases with severe cirrhosis and also they had longer duration of ages for inclusion criteria and longer the age was another factor with positive outcome in present study.

In this study GOV were seen significantly higher in age group of 46-60 years affecting 129 (59.18%) cases (p= 0.02) and the cases with child pugh class C having in 66 (84.62%) as compared to their comparative groups with p= 0.001. This was also seen by the studies don by Saeed uz Zaman et al and Akiyoshi N et al that also found higher cases of GOV in older age groups and severe form of disease especially after the 4<sup>th</sup> decade of their life.<sup>9-10</sup> Higher degree of severity lead to more extensive damage and higher chances of portal hypertension. This can also be explained as the cases that had higher age, also had longer duration of disease and more the chances of gastro oesophageal varices. However, Irani S et al did not find any association of severity of disease and varices.<sup>11</sup>

### CONCLUSION:

Liver cirrhosis is common in developing countries like Pakistan. Complications like OGV are common and are significantly associated with higher age and Child pugh class C.

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