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EFFICACY OF TERLIPRESSIN IN CASES PRESENTING WITH UPPER GI BLEED DUE TO DECOMPENSATED LIVER CIRRHOSIS

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Abstract:

Objective; *To determine the efficacy of Terlipressin in cases presenting with upper GI bleed due to decompensated liver cirrhosis.*

Methodology: *This was a cases series study conducted at LGH, Lahore during January to July 2017. In this study the cases of Decompensated liver cirrhosis of both genders and in adult range of age more than 18 years were included. Decompensated liver cirrhosis was labelled by the presence of liver size less than 12 cm, coarse echo texture and with any of the following i.e. ascites, portal vein dilatation more than 1 cm, spider angioma, gastric varices or caput medusa. The cases with upper GI bleed of any amount were included. the cases with NSAIDs use and those with any renal or heart failure were excluded. Then injection Terlipressin was administered in a dose of 1 mg intravenous every six hour and they were followed for another 24 hour. Efficacy was labeled as yes where there was no bleeding after 24 hours of Terlipressin administration.*

Results: *In this study there were total 100 cases of decompensated liver cirrhosis presented with upper GI bleed out of which 57 (57%) were males and 43 (43%) were females. The mean age at presentation was 57.21±8.23 years. Efficacy of Terlipressin in such cases was seen in 57 (57%) of the cases. The efficacy was near significant high in cases that had duration of cirrhosis more than 3 years where it was observed in 38 (64.4%) of cases with p=0.09. Efficacy of Terlipressin was more in cases with child Pugh class B reflecting in 48 (65.75%) of cases with significant p value of 0.03.*

Conclusion; *Terlipressin has shown good efficacy in Upper GI bleed and it is significantly high in cases that had child pugh class B.*

Key words: *Cirrhosis, Upper GI bleed, Terlipressin*

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INTRODUCTION:

Liver disorders are one of the major health care burdens in the developing countries especially due to infections like hepatitis B and C virus. It leads to inflammation of the liver parenchyma and damage escalates the inflammatory process in the liver that results in liver fibrosis called as liver cirrhosis [1].

Liver cirrhosis copes with the body demands until its decompensated and result in wide range of complications and amongst them portal hypertension is the salient one. This leads to varices formation and can end up in upper gastro intestinal bleeding. This bleeding can be fatal if no intervention done. The incidence of upper GI bleed is two times high in cases with decompensated as compared to compensated cirrhosis [2,3].

The treatment goal is dependent upon the severity and the speed of blood loss and can be medical or surgical management. In majority of the cases i.e. around 80% of the cases these are managed by medical measures [4,5]. Multiple drugs have been used in the past and Terlipressin is preferably used in the recent past. It is easy to administer, widely available and haven't shown major side effect and also shown good efficacy in the past studies [6,7].

OBJECTIVE:

To determine the efficacy of Terlipressin in cases presenting with upper GI bleed due to decompensated liver cirrhosis.

Study Design:

Case series

Settings:

Lahore General Hospital, Lahore.

Study Duration:

January 2017 to July 2017

Sample technique:

Non probability consecutive sampling

In this study the cases of Decompensated liver cirrhosis of both genders and in adult range of age more than 18 years were included. Decompensated liver cirrhosis was labelled by the presence of liver size less than 12 cm, coarse echo texture and with any of the following i.e. ascites, portal vein dilatation more than 1 cm, spider angioma, gastric varices or caput medusa. The cases with upper GI bleed of any amount were included. the cases with NSAIDs use and those with any renal or heart failure were excluded. Then injection Terlipressin was administered in a dose of 1 mg intravenous every six hour and they were followed for another 24 hour. Efficacy was labeled as yes where there was no bleeding after 24 hours of Terlipressin administration.

Statistical analysis:

The data was entered and analyzed by SPSS version 22 and chi-square test was used for stratification taking p-value $\leq$ 0.05 as significant.

RESULTS:

In this study there were total 100 cases of decompensated liver cirrhosis presented with upper GI bleed out of which 57 (57%) were males and 43 (43%) were females. The mean age at presentation was 57.21±8.23 years. Efficacy of Terlipressin in such cases was seen in 57 (57%) of the cases as shown in figure 01. The efficacy was near significant high in cases that had duration of cirrhosis more than 3 years where it was observed in 38 (64.4%) of cases with p- 0.09 as in table 01. Table 02 reveals that efficacy of Terlipressin was more in cases with child Pugh class B reflecting in 48 (65.75%) of cases with significant p value of 0.03.

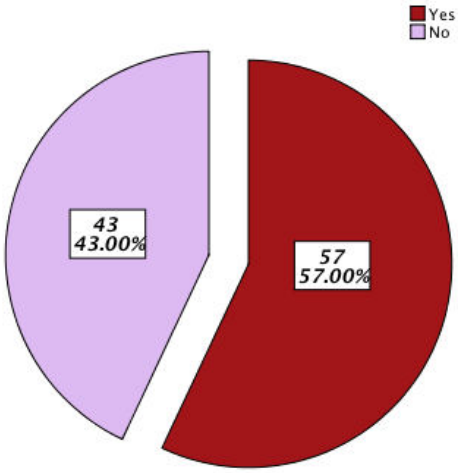

Figure no. 01. Efficacy of Terlipressin in study subjects

Table no. 01. Efficacy in study subjects vs duration of cirrhosis

Duration of cirrhosis	Efficacy		Total	p value
	Yes	No		
< 3 years	19 (46.34%)	22 (36.37%)	41 (100%)	
3 or more	38 (64.40%)	21 (43.59%)	59 (100%)	0.09
Total	**57 (57%)**	**43 (43%)**	**100 (100%)**	

Table no. 02. Efficacy in study subjects vs child pugh class C

Child Pugh Class	Efficacy		Total	p value
	Yes	No		
C	9 (33.33%)	18 (66.67%)	27 (100%)	
B	48 (65.75%)	25 (34.25%)	73 (100%)	0.03
Total	**57 (57%)**	**43 (43%)**	**100 (100%)**	

DISCUSSION:

Upper Gastro intestinal (GI) bleed is one of the dreadful complications seen in cases of decompensated liver cirrhosis leading to portal hypertension. Urgent treatment is required to stop ongoing fatal blood loss. Invasive procedure i.e. endoscopy is considered as the treatment of choice but is not available at every centre and round the clock and Terlipressin has shown good results in recent times [7,8].

The efficacy of Terlipressin, in this study was seen in 57 (57%) of the cases. Internationally this finding was found a little lower than the other studies. According to studies done by y Ioannou et al and Escorsell et al, the efficacy of same therapy was seen in 75-80% of the cases. The other studies have also shown even more successful rates and the efficacy was observed around 90% of the cases in their studies [9,10]. The reason of high success rate in their as compared to the present study can be explained by the difference in the operational definition and it was seen that these cases wee administered with Terlipressin for 5 days as compared to the present study where it was give for 3 days only.

The results of the Terlipressin in terms of efficacy was significantly high in cases suffering from child pugh class B; and it was observed in where it was seen in 48 (65.75%) out of 73 cases in their respective group with p= 0.03. The data also showed previously that Terlipressin has shown significantly high results in cases with class B with $p < 0.05$ [11,12]. The reason of failure in the other group can be described as higher the degree of the disease and higher are the chances of varices due to portal hypertension.

CONCLUSION:

Terlipressin has shown good efficacy in Upper GI bleed and it is significantly high in cases that had child pugh class B.

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