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STUDY TO KNOW THE INTRAVENOUS OCTEROTIDE EFFICACY FOR THE MANAGEMENT OF EARLY VARICEAL BLEEDING AFTER SCLEROTHERAPY

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Abstract:

Objective: *The aim of this study was to evaluate the efficacy of intravenous octreotide after sclerotherapy in the prevention of variceal bleeding.*

Study Design: *A comparative / interventional study.*

Place and Duration: *In the Gastroenterology Department Jinnah Hospital Lahore for one year duration from June 2017 to June 2018.*

Methods: *Sixty consecutive patients (mean age: 47.48 ± 9.60 years) (26-65 years) with acute variceal bleeding were included in the study. There were Forty-two (70%) males and eighteen (30%) females. They were randomized into two equal groups. In the study group (group I), 24 hours after sclerotherapy, octreotide infusion (25 g / hour) was continued, while the control group received approximately the same amount of saline. Both groups were observed for the presence of early re-bleeding of varices for five days after sclerotherapy.*

Results: *Re-bleeding was 23.3% in group I and 33.3% in group II (p> 0.05). The number of patients requiring blood transfusion was similar in both groups (p> 0.05). According to a general impression at the end of the study, 10% of the patients became unstable in group I and 36.7% in group II became unstable (p = 0.02). .*

Conclusion: *After 24 hours of sclerotherapy, no significant effect was observed for the prevention of re-bleeding with the variants of octreotide infusion. However, at the end of the study, a general impression based on hemodynamic status revealed that patients were clinically more stable after an injection of octreotide after an injection sclerotherapy.*

Key words: *sclerotherapy, variceal re-bleeding.*

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INTRODUCTION:

Cirrhosis of liver and portal hypertension in about 33% of patients develop varices and becoming a very common disease in our country due to infection with hepatitis B and C. Approximately 30% of patients develop variceal bleeding associated with a mortality rate of 50%. A recurrent bleeding is expected in 65-70% of patients who survived the first acute attack.

MATERIALS AND METHODS:

This comparative/ interventional study was held in the Gastroenterology Department Jinnah Hospital Lahore for one year duration from June 2017 to June 2018.

Study Design: This is a comparative / interventional study to determine the effect of intravenous octreotide on re-bleeding of varices after sclerotherapy.

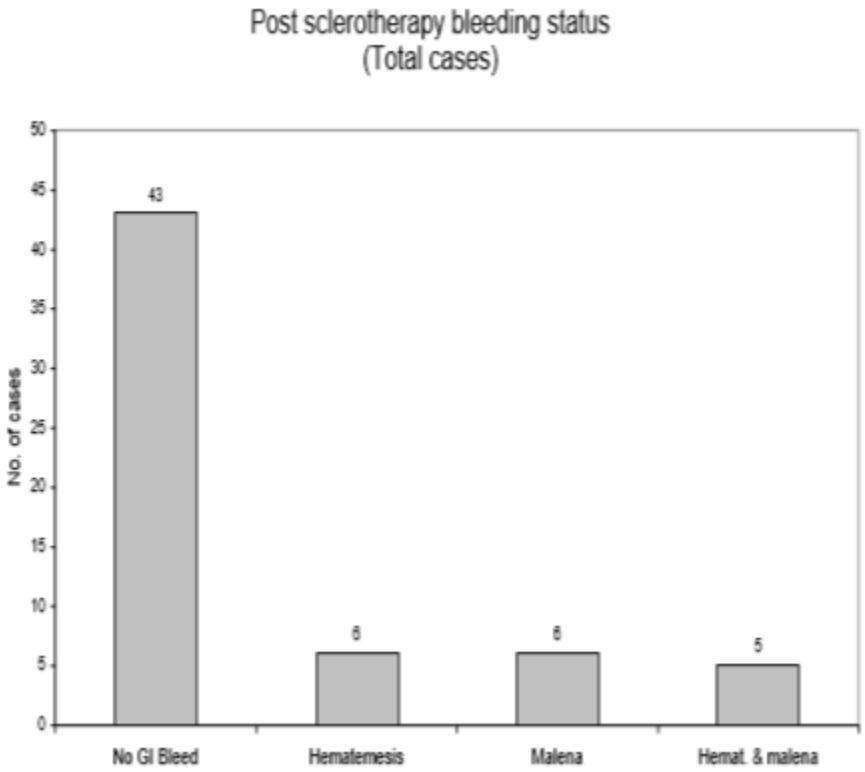
Inclusion criteria: All patients (age 20 to 60 years) of acute upper gastrointestinal bleeding for esophageal varices in the Gastroenterology department were included in the study.

Exclusion criteria: patients with peptic ulcer, upper gastrointestinal bleeding due to gastritis, patients with Mallory Weiss syndrome or haemorrhagic diathesis sclerotherapy and patients with incontinence after sclerotherapy were excluded from the study.

Data Collection Procedure: sixty patients with acute upper gastrointestinal bleeding due to varices were selected for study. All patients were followed by 6-12 hr of octreotide (50-100 g following a continuous intravenous infusion for 25-50 g / hr capsule) and sclerotherapy were inoculated. After sclerotherapy, these 60 cases were divided into two groups; Study group and control group. Randomization was performed according to random number tables. The control group was continued with intravenous octreotide. He received normal saline infusion at approximately the same rate. In both groups (for five days) re-bleeding i.e hematemesis or a history of Malena, has been observed, five days after transfusion or plasma expander, vital signs, hemoglobin and endoscopy are required. The end point of the study was repeat bleeding. All patients started with intravenous octreotide (50-100 g bolus, followed by continuous infusion 25-50 g / hour) followed by sclerotherapy 6-12 hours later. After sclerotherapy, the patients were divided into two equal groups: the study group and the control group. The control group continued with intravenous octreotide after sclerotherapy and the control group did not intervene. Both groups were followed up for 5 days with the help of biochemistry and gastroscopy, both subjective and objective. The data of 60 patients entered into a form. Data analysis was computer based. SPSS version 18 was used for analysis. The frequency of recurrence was calculated as a percentage and the comparison between groups was performed by using chi-square test.

RESULTS:

Sixty patients in this study were 47.13 ± 9.96 (26-65 years) and in the study group and 47.83 ± 9.38, whereas in the control group (32-65 years) with a mean age of 47.48 ± 9.60 years (26-65 years) (± SD). Forty-two patients (70%) were male and eighteen (30%) were female. In the study group, 23 patients (76.7%) were male, 7 (23.3%) were female and 19 patients (63.3%) were male and 11 (36, 7%) were female in the control group. 21 patients (35%) had no hematemesis alone, 8 patients (13.3%) had malena alone, 31 (51.7%) presented with complaints of hematemesis and malena. The average pulse rate was 100 ± 12.37 / min (70- 124), 94.33 ± 8.99 mmHg (80-110 mmHg) and diastolic blood pressure, mean systolic blood pressure was 64.83 Average ± 10.77mmHg (40 -90 mmHg). Other parameters were evaluated during the study. Endoscopy was performed on the first 60 patients, and among them, 15 patients (25%) were class II, 22 patients (36.7%) were summarized in the table were class III varices and 23 patients (38.3% of class IV varices).

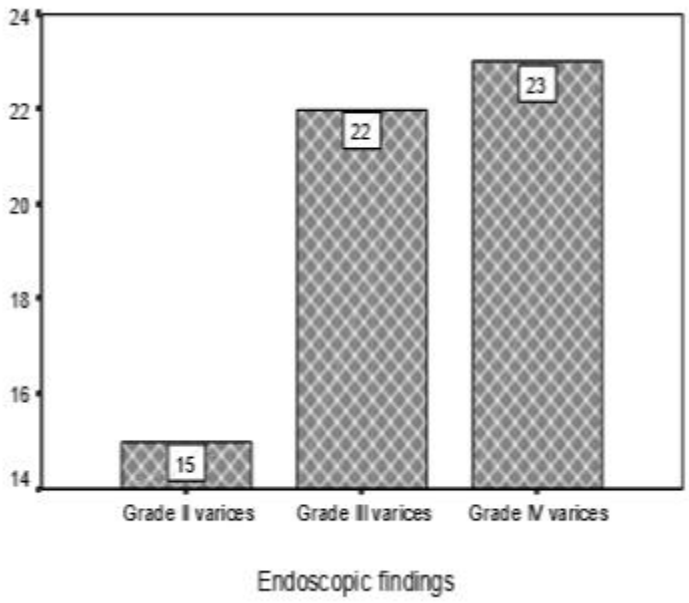


When both groups were followed to determine the efficacy of octreotide in the prevention of re-bleeding in varices (Figure 1), after the sclerotherapy, Malena observed in the study group (group I), 23 patients (76.6%), and only 1 patient alone (patients of hematemesis alone(13.3%), only, 2 patients (6.6%) of hematemesis and Malena and did not complain 3.3%) in the control group without hematemesis and Malena (group II), 20 patients (66.6%), hematemesis and Malena, 2 patient (6.6%) had no hematemesis, 4 patients (13.3%) malena and 4 patients (13.3%) had both hematemesis and Malena, 17 patients had new bleeding and 43 patients did not show bleeding (Graph 2).

Table 1: Parameters assessed during study

Parameters	Max.	Mini.	Mean	SD
Hb (gm/dl)	13	4.3	8.68	1.83
Na (meq/l)	146	128	136.23	4.09
Urea (mg/dl)	251	20	61.33	8.61
Cr (mg/dl)	6	0.5	1.58	0.96
S/bilirubin (mg/dl)	4.20	0.4	1.53	0.95
AST (iu/l)	150	15	42.13	20.81
S/Albumin (gm/dl)	4.30	2.20	3.30	0.52
PT (sec)	42	12	20.26	6.03

The mean pulse rate was 93.73 ± 13. 7 / min in the study group and 93.26 ± 10.13 / min in the control group. The mean arterial pressure (systolic) in the study group was 115.33 ± 14.19 and 115.16 ± 15.34 mmHg in the control group.



The mean arterial pressure (diastolic) in the study group was 76.83 ± 74.16 ± 9.23mmHg and 9.19mmHg in the control group. Regarding blood transfusion, 14 patients (46.7%) required transfusion in the study group. Similar results were found in the control group. In the control group, 11 patients (36.7%) were unstable, while the study group (group 1) and 3 patients (10%) were unstable. In our study (p> 0.05), we did not find statistically significant differences in clinical parameters, ie, the effect of octreotide on the prevention of hematesis and malena. The number of patients requiring transfusion was similar because of the efficacy of octreotide in blood transfusion after sclerotherapy, the results were significantly different (p> 0.05). However, a relevant general impression of the study (in terms of portosystemic encephalopathy and death) was found to be (p = 0.02) statistically significant.

DISCUSSION:

Sixty patients entered the study with a mean age of 47.48 ± 9.60, a minimum age of 26 years and a maximum of 65 years. Farooqi JI et al1 reported a mean age of 52.4 ± 5.4 years (37-67 years). Zuberi BF et al2 reported an average of 38.4 ± 8.6 years, similar to our average age. In the control group, the mean age was 47.83 ± 9.38 In our study, the study group (group 1), the mean age was 9.96 47.13 (26-65 years) (32-65 years). After adequate randomization, we can see that the average age in the study and control groups is similar. This comparison suggests that acute variceal bleeding is more common in this age group. Of 60 patients, 42 (70%) were male and 18 (30%) were female. Umer M et al3 followed 40 cases of acute variceal bleeding secondary to cirrhosis. Farooqi JI et al. (Male, 76.52%) reported similar results. Zuberi BF and colleagues also had similar results (80% in males), comparable to our numbers. In the study group, 23 patients (76.7%) were male, 7 (23.3%) were female and 19 patients (63.3%) were male and 11 (36, 7%) were female. This comparison suggests that acute variceal bleeding secondary to cirrhosis of the liver is more common in men. Sclerotherapy was performed initially in all patients and the control and study groups were compared for evidence of re-variceal bleeding. After sclerotherapy, both groups did not complain to all hematemesis and Malena was observed in 23 patients (76.6%) to mention the efficacy of octreotide in patients with esophageal varices to prevent re-bleeding, while in 4 patients (13.3%) hematemesis, in 2 patients (6.6%) one patient had hematemesis and malenia in only one patient. In the control group, the re-bleeding rate was 33.3% (> 0 s is not statistically significant; therefore, the total rate of re-bleeding was 23.3% in the study group). Mohammad SR et al. (4) found that 10% of the bleedings in our study group were significantly lower compared to our study group. Regarding blood transfusion, 14 patients (46.7%) required transfusion in the study group. Similar results were obtained in the control group and there was no statistically significant difference between the two groups for transplantation. In terms of a general impression based on hemodynamic status, 3 patients (10%) were unstable in the study group, while 11 patients (36.7%) in the control group became unstable and suggested the patients. they are clinically more stable if octreotide infusion is performed after sclerotherapy injection (p = 0.02).

CONCLUSION:

The efficacy of octreotide was not significant in the prevention of re-bleeding of esoplageal varices after sclerotherapy. Therefore, at the end of the study, it is suggested that octreotide does not need to continue to prevent new early esophageal vascular bleeding after sclerotherapy. Patients starting with octreotide infusion after sclerotherapy are less stable in terms of portosystemic encephalopathy and overall mortality, but this requires additional intervention studies for a clear interpretation.

REFERENCES:

1. Hernández-Gea, Virginia, Claudia Berbel, Anna Baiges, and Juan C. García-Pagán. "Acute variceal bleeding: risk stratification and management (including TIPS)." *Hepatology international* 12, no. 1 (2018): 81-90.
2. Monreal-Robles, Roberto, Carlos A. Cortez-Hernández, José A. González-González, Juan G. Abraldes, Francisco J. Bosques-Padilla, Héctor N. Silva-Ramos, Jorge A. García-Flores, and Héctor J. Maldonado-Garza. "Acute Variceal Bleeding: Does Octreotide Improve Outcomes in Patients with Different Functional Hepatic Reserve?." *Annals of hepatology*17, no. 1 (2018): 125-133.
3. Jha, Sanjeev Kumar, Manish Mishra, Ashish Jha, and Vishwa Mohan Dayal. "Comparison of continuous versus intermittent infusions of terlipressin for the control of acute variceal bleeding in patients with portal hypertension: An open-label randomized controlled trial." *Indian Journal of Gastroenterology* 37, no. 4 (2018): 313-320.
4. Yan, Pengguang, Xiao Tian, and Jingnan Li. "Is additional 5-day vasoactive drug therapy necessary for acute variceal bleeding after successful endoscopic hemostasis?: A systematic review and meta-analysis." *Medicine* 97, no. 41 (2018).
5. Heidet, M., Amathieu, R., Audureau, E., Augusto, O., de Barmon, V.N., Rialland, A., Schmitz, D., Pierrang, F., Marty, J., Chollet-Xémard, C. and Thirion, O., 2018. Efficacy and tolerance of early administration of tranexamic acid in patients with cirrhosis presenting with acute upper gastrointestinal bleeding: a study protocol for a multicentre, randomised, double-blind, placebo-controlled trial (the EXARHOSE study). *BMJ open*, *8*(8), p.e021943.
6. Angelico R, Pietrobattista A, Candusso M, Tomarchio S, Pellicciaro M, Liccardo D, Basso MS, Grimaldi C, Saffioti MC, Torroni F, Dall'Oglio L. When primary prophylaxis is beneficial for gastrointestinal bleeding in children with biliary atresia and portal hypertension candidate for liver transplantation? Report from a singe-center experience. InTransplantation Proceedings 2018 Jun 28. Elsevier.
7. Zhang, Jingqiao, Xinmiao Zhou, Haitao Zhao, Jiao Deng, and Xingshun Qi. "Adverse events of terlipressin in liver cirrhosis with acute gastrointestinal bleeding: a clinical pharmacist's real-world observational study." *Digestive Medicine Research*1, no. 2 (2018).
8. Zhang, Jingqiao, Xinmiao Zhou, Haitao Zhao, Jiao Deng, and Xingshun Qi. "Adverse events of terlipressin in liver cirrhosis with acute gastrointestinal bleeding: a clinical pharmacist's real-world observational study." *Digestive Medicine Research*1, no. 2 (2018).
9. Tulachan, Sidhartha S., Jigar Bhagatwala, and Subbaramiah Sridhar. "Endoscopic Management of Esophageal Varices and Variceal Hemorrhage." In *Diagnostic and Therapeutic Procedures in Gastroenterology*, pp. 165-178. Humana Press, Cham, 2018.
10. Chandra, Subhash, Adrian Holm, Rami G. El Abiad, and Henning Gerke. "Endoscopic Cyanoacrylate Glue Injection in Management of Gastric Variceal Bleeding: US Tertiary Care Center Experience." *Journal of clinical and experimental hepatology* 8, no. 2 (2018): 181-187.
11. Nabrawi, Khalid Y., Saad S. Algahtani, Ahmed Y. Shaheen, Abdullah M. Alshehri, Mushabab Algahtani, and Mohamed-Elbagir K. Ahmed. "A rare cause of obscure upper gastrointestinal bleeding: A challenging experience." *Int J Case Rep Images* 9, no. 1 (2018): 16-19.
12. Roberts, D., Tsochatzis, E. and Gurusamy, K.S., 2018. Treatment for bleeding oesophageal varices in people with decompensated liver cirrhosis: a network meta-analysis. *Cochrane Database of Systematic Reviews*, (10).
13. Lanas, Angel, Jean-Marc Dumonceau, Richard H. Hunt, Mitsuhiro Fujishiro, James M. Scheiman, Ian M. Gralnek, Helen E. Campbell, Alaa Rostom, Càndid Villanueva, and Joseph JY Sung. "Non-variceal upper gastrointestinal bleeding." *Nature Reviews Disease Primers* 4 (2018): 18020.
14. Esteban-Zubero, Eduardo, Elisabet Sarmiento-Acosta, Sara Sáez-Jiménez, Moisés Alejandro Alatorre-Jiménez, Alejandro Marín-Medina, Marta Olga Asín-Corrochano, Rocío Villeda-González, Carlos Arturo López-García, and José Juan Gómez-Ramos. "Management of acute upper gastrointestinal bleeding." (2018).
15. Thatte MD, Sewani S, Raghuvanshi K. An

unusually long survival in a case of ARPKD-Polycystic Hepatorenal disease with Congenital Hepatic Fibrosis, presenting with variceal bleeding and hypersplenism due to portal hypertension, with review of literature. PARIPEX-INDIAN JOURNAL OF RESEARCH. 2018 Feb 14;6(2).