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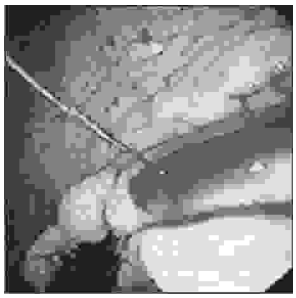

ESOPHAGEAL VARICES;

EARLY RE-BLEEDING, A COMPARISON OF ENDOSCOPIC SCLEROTHERAPY AND A COMBINATION OF SCLEROTHERAPY AND OCTREOTIDE.

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SUMMARY... dr_maqsoodahmadd@yahoo.com. A comparative trial was conducted to study the relative efficacy of endoscopic injection sclerotherapy versus endoscopic injection sclerotherapy plus octreotide with reference to acute control of bleeding esophageal varices and early re-bleeding. A total of 58 patients equally divided in two groups were included in this study. Bleeding was controlled in 90% patients in both the groups. In group1 there were 20(68.96%) males and18(62%) males in group 2. The mean age of the patients under study was 50.62 &50.55 in group 1& 2 respectively. The major proportion of patients was in Child Class B, which comprised of 42(72.41%) in total. Child Class C was excluded out of study. Twenty-two (75.86%) patients in group 1 were in Child Class B and 7(24%) were in Child Class A & in group 2 there were 20 (68.96%) patients in Child Class B and 21% were in Class A. Etiology of cirrhosis was HCV in 41(70.86%) and HBV in 9(15.5%) and other etiologies in remaining patients. In, group 1,HCV related cirrhosis was seen in 20 (68.96%) and in group 2, this was responsible for cirrhosis in 21(70.68%) of patients. Patients suffering from HBV related cirrhosis were 5(17.42%) in first group and 4(13.79%) in second group 2. Relatively less number of patients in group 2, had rebleeding in first week of their in-hospital follow-up i.e. 5 versus 8 patients. Average number of blood transfusions per patient was 3.86 piants in group 1and 2.45 piants in group 2. The mean duration of Hospital stay was 8.52 days in group 1 and 7.45 days in group 2. Procedure related complications and in hospital outcome was almost comparable in two groups. The most common complication was hepatic encephalopathy. Combining endoscopic therapy with one of the vasoactive agents reduces the chances of early re-bleeding and need for number of blood transfusions and duration of hospital stay.

Key words: Endoscopy, Sclerotherapy, Octreotide, early re-bleeding.

INTRODUCTION

Upper gastrointestinal tract hemorrhage is a common condition complicated by frequent recurrences and the need for blood transfusions[1]. Portal hypertension

resulting in bleeding esophageal varices is a commonly seen condition in medical practice in Pakistan. There is enough evidence available in the local literature to show that bleeding from esophageal varices is one of the most common causes of upper GI bleeding[2]. The natural history of patients bleeding from esophageal varices varies, depending upon the cause of portal hypertension, with worst prognosis for patients with ongoing liver damage and poor liver reserves[3,4]. Among numerous causes of portal hypertension the most commonly seen in Pakistan is cirrhosis of liver secondary to viral hepatitis, followed by non cirrhotic portal hypertension and extra hepatic portal vein obstruction[5]. Neither portal vein pressure nor intravariceal pressure is directly related to the risk of bleeding. Factors that are related to the increased risk of first bleeding include large varices, red sign on varices and the degree of liver dysfunction. The bleeding point is nearly always 3 cm of gastro-esophageal junction. Control of bleeding and prevention of early rebleeding is the goal of treatment[6]. There are many methods of management of acute variceal bleeding in practice, with variable results. The measures for the control of acute bleeding can be divided into three main categories i.e., mechanical compression by balloon temponade, vaso-active drugs like terlipressin, somatostatin and octreotide and endoscopic procedures like injection sclerotherapy or band ligation. These measures can be used in combination as well[7,8,9]. A recent meta-analysis showed that the efficacy of emergency endoscopic sclerotherapy or band ligation of varices is significantly improved when combined with somatostatin or its derivatives[10]. The aim of present study was to find out the effect of endoscopic injection sclerotherapy versus a combination of injection sclerotherapy plus octreotide treatment on control of variceal bleeding and the risk of early rebleeding in patients presenting with upper GI bleeding due to esophageal varices.

OBJECTIVES

The objective of this study is to:

To Compare the two treatment modalities (Sclerotherapy versus a combination of injection sclerotherapy plus octreotide) in acute control of bleeding from esophageal varices and impact on the frequency of early re-bleeding i.e. within first week of therapy.

METHODS AND PATIENTS

Fifty-eight consecutive patients of either sex in Child Class A&B presenting with acute variceal bleeding were included in this study. The patients were divided in two groups for the study purpose.

Group I

In this group bleeding esophageal varices were managed with injection sclerotherapy through Fiberoptic endoscope with 0.5- 1.0 ml of 3% Sodium tetradecyl (STD)/ varix.

Group II

Bleeding esophageal varices were managed in the same way as in Group 1and additionally these patients were given Octreotide infusion 50 micrograms (mcg)/hour for first 6 hours and then 50mcg/6hourly to complete 72 hours of octreotide therapy.

INITIAL RESUSCITATION

Before endoscopic sclerotherapy all the patients were resuscitated in the similar way with crystalloids, colloids and blood transfusions in the light of the condition of the patient and the availability of the fluids.

ENDOSCOPY

The upper GI endoscopy and sclerotherapy was done with Fibroptic endoscope(PENTAX FG-29V) and the injector(Pentax NS22 15-2304) within first 24hours after patient initial resuscitation or at the earliest possible time after resuscitation.

OBSERVATIONS

Observations were made especially with reference to:

* The control of bleeding at the time of procedure.
* Rebleeding within first 72hours.
* Rebleeding at the end first week of procedure.
* Complications related to the procedure.
* In-hospital outcome.

INCLUSION CRITERIA

Patients suffering from cirrhosis of liver regardless of the

etiology
of the liver disease presenting with bleeding from esophageal
varices in Child Class A&B.

EXCLUSION CRITERIA

Patients of cirrhosis but in Child Class C.
Patients with concomitant renal failure or heart failure.
Patients with hepatoma or other malignancy.
Patients with uncontrolled diabetes.

STUDY PERIOD

June 2001 to February 2003. The study was conducted in Medical unit IV DHQ Hospital (PMC) Faisalabad.

RESULTS

A total of fifty-eight patients were included in this study and equal number of patients was included in each group 1 & group2. In group1 there were 20(68.96%) males and18(62%) males in group 2. The mean age of the patients under study was 50.62 &50.55 in group 1& 2 respectively. The mean age for males was 49.75 in group 1 and 51.06 for group 2 and for females this figure was 50.11 versus 49.73 years in two groups respectively(Table-I & Fig-1).

Table-I. Patient's Demography

Parameters	Group I (n=29)	Group II (n=29)
Male	20	18
Female	9	11
Age (Mean)	50.62	50.55
For Male (Mean)	49.75	51.06

According to the disease severity the major proportion of patients was in Child Class B, which comprised of 42(72.41%) of total patients under the study and Class C was excluded out of study. Considering advanced nature of their disease they were not included in the trial from very outset. Twenty-two (75.86%) patients in group 1 were in Child Class B and remaining 7(24%) were in Child Class A & in group 2 there were 20 (68.96%) patients were in Child class B and 21% were in Class A.

Etiology of cirrhosis in the patients under study was HCV in 41(70.86%) and HBV in 9(15.5%), both HBV &HCV in 4(6.89%) and other etiologies were involved in another 4(6.89%) patients. In, group 1,HCV related cirrhosis was seen in 20 (68.96%) and in group 2, this etiology was responsible for cirrhosis in 21(70.68%) of patients. Patients suffering from HBV related cirrhosis were5 (17.42%) in first group and 4(13.79%) in second group 2(Table-II & Fig-2).

Fig-1. Patients Demography

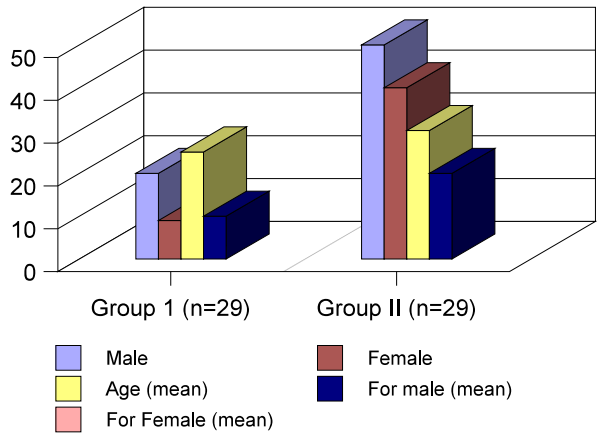


Table-II. Patients clinical parameters

Parameters	Group I (n=29)	Group II (n=29)
Child's Class A	7	9
Child's Class B	22	20
Etiology of cirrhosis		
HCV	20	21
HBs	5	4
Both HCV & HBs	2	2
Others	2	2

After initial resuscitation patients underwent Sclerotherapy session and results in two groups were in a way that haemostasis was successfully achieved in 27(93.1%) patients in group1 and in 26(89.65%) patients in group 2 and overall success rate was 91.37%.

There was relatively less number of patients in group 2, who had rebleeding in first week of their in-hospital follow-up i.e. 5 versus 8 patients (Table-III & Fig-3).

Fig-2. Patients clinical parameters

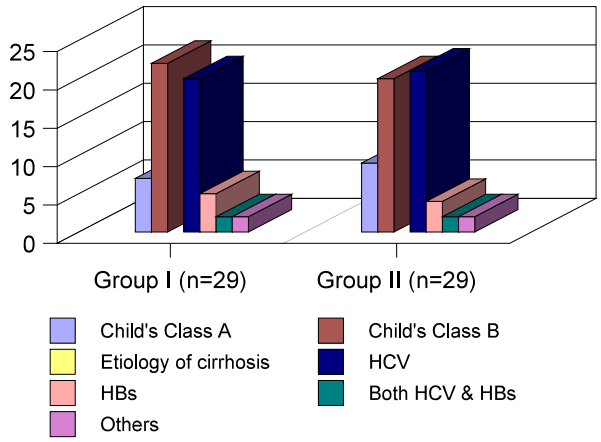
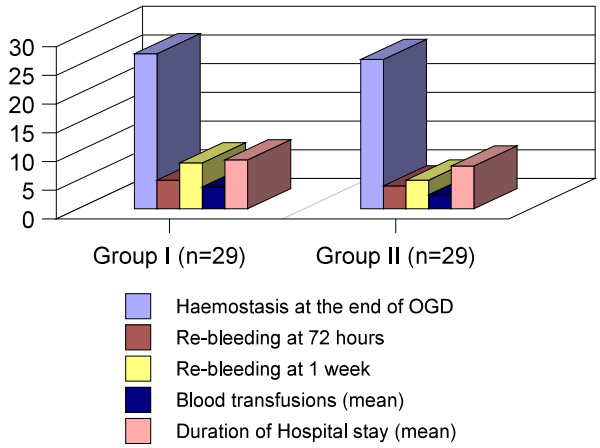


Table-III. Procedure and Hospital related findings

Findings	Group I (n=29)	Group II (n=29)
Haemostasis at the end of OGD	27	26
Re-bleeding at 72 hours	5	4
Re-bleeding at 1 week	8	5
Blood transfusions (mean)	3.82	2.45
Duration of Hospital stay (mean)	8.52	7.45
Blood transfusions in patients with early re-bleeding (mean)	6.38	2.4
Duration of Hospital stay in patients with re-bleeding (mean)	11.13	7.4

Average number of blood transfusions per patient was 3.86 piants in group 1and 2.45 piants in group 2 . The mean duration of Hospital stay was 8.52 days in group 1 and 7.45 days in group 2. The difference between group 1 & group 2 was more prominent in relation to number of blood transfusions required and duration of hospital stay when data of patients with evidence of re-bleeding in first week was compared. The number of transfusions per patient was 6.38 versus 2.4 in group 1& 2 respectively. The mean duration of hospital stay in this set of patients was11.13 versus7.4 days.

Fig-3. Procedure and Hospital related findings



Procedure related complications and in hospital outcome was as follows. A total of 8 patients (four in each group) developed hepatic encephalopathy. Two patients in each group developed pneumonia and one patient in each group developed pleural effusion. Two patients in group 1 developed mediastinitis. A total of four patients expired during hospital stay (two in each group). One was sudden cardiac death and remaining three expired in hepatic encephalopathy(Table-IV).

Table-IV. Procedure related complications / outcome

Findings	Group I	Group II
Hepatic encephalopathy	4	4
Pneumonia	2	2
Mediastinitis	2	0
Pleural effusion	1	1
Expired	2	2

DISCUSSION

Although bleeding from esophageal varices ceases

spontaneously in up to 40% of the patients, the mortality of an episode of variceal hemorrhage is about 30% and occurs mostly in patients with severe liver disease and in those with early re-bleeding . Re-bleeding occurs in up to 40% of the cases within 6 weeks. Therefore in addition to general resuscitative measures, treatment of acute variceal hemorrhage encompasses two important aspects: control of hemorrhage (defined as achieving a 24-hour bleeding free period within first 48 hours after starting therapy) and prevention of early recurrence[11].

Endoscopic therapy has revolutionized the care of patients with cirrhosis who have acute variceal hemorrhage. Endoscopic Sclerotherapy stops bleeding in 80 to 90 percent of patients with acute variceal hemorrhage[12].

In a study by Yousaf MH et al involving 96 patients, they have described that HBV was the cause of cirrhosis in 54% of the patients and HCV was the cause of cirrhosis in 46% of the patients under study[7]. This is in sharp contrast to findings in our study where HCV is the etiology of cirrhosis, i.e., more than 70% of patients under study. The published data from our country is also in line with our findings[13]. In the study mentioned above this pattern of etiology may be because of different study sample.

Hepatic reserves assessed by Child Pugh parameters bore the most important influence on the incidence of morbidity and mortality. Rebleeding and survival are equally by Child grading. Yousaf MH et al include patients of Child class A,B & C while the major group belonged to Class A. The cumulative mortality reported is 11% and similar mortality has been reported by Haque & Ahmad study[14]. The in-hospital mortality rate in our study is around 7%. This may be because of that we excluded Child Class C patients and our treatment regimen was also different from these studies. The cumulative complication rate was 34% in our study, which is in line with international studies[15,16].

The use of somatostatin or analogues as adjunct to endoscopic therapy appears to be the most promising approach in the treatment of acute variceal hemorrhage. Given the lack of side effects their use can be extended to 5 days, the period during which the risk of re-bleeding is the highest. In a placebo-controlled trial of 5-days infusion of somatostatin as adjunct to Sclerotherapy, failure of therapy was significantly lower in the group that received somatostatin (35%) than in placebo-treated group (55%)[17]. In our study re-bleeding rate at the end of first week was 27.5% versus17.2% in two groups respectively and this low rate of re-bleeding is probably because of the exclusion of patients with severe disease from the study or because of small sample size however the re-bleeding rate is less in patients who were managed with a combination of injection Sclerotherapy plus octreotide injections.

CONCLUSION

Gastro-esophageal variceal hemorrhage is a common and devastating complication of portal hypertension. The rate and complications of variceal hemorrhage increases with advancing liver disease. After initial resuscitation patients should be managed with endoscopic therapy. Combining endoscopic therapy with one of the vasoactive agents significantly reduces the chances of early re-bleeding and need for number of blood transfusions and duration of hospital stay.

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Is rich in reality

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