positive, 0.169% \( (n = 69) \) were reactive for anti-HCV and 0.041% \( (n = 17) \) were positive for HIV. Since the number of female donors was very less, overall prevalence was calculated and no comparison among sexes was made. HBV and HCV positive cases were seen to have an increased trend while HIV showed a decreased trend towards the end.

**Conclusion:** Seroprevalence of HBV, HCV and HIV though is low in our setup compared to other states, but still they are a potential threat to the recipients of the blood and thus stringent measures need to be taken to screen the blood to avoid the transmission of these transmissible diseases among blood recipients. As replacement donors are not professional blood donors and grossly represent the community, this study as such may give us an idea about the real prevalence of these diseases in our community in the absence of community-based epidemiological studies.

Corresponding author: Nisar A. Shah.
E-mail: nisarshah19@gmail.com
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**TO COMPARE ENDOCOSPIF VARICEAL LIGATION + CARVEDILOL VERSUS ENDOCOSPIF VARICEAL LIGATION + PROPRANOLOL ON HEPATIC VEIN PRESSURE GRADIENT REDUCTION AT 1 MONTH IN PATIENTS WITH FIRST EPISODE OF ESOPHAGEAL VARIX BLEED: OPEN LABEL RANDOMIZED TRIAL**

Ramakant Rawat, Vipin Gupta, Pratap Mouli, Shalimar, Anoop Saraya
All India Institute of Medical Sciences, New Delhi, India

**Aim:** Primary objective of this study was to compare endoscopic variceal ligation (EVL) plus Propranolol versus EVL plus Carvedilol on reduction of HVPG after one month of therapy with secondary objective of comparison of rate of rebleeding after index esophageal variceal bleed in Child A/B cirrhosis.

**Methods:** Patients of Child A/B cirrhosis presenting to emergency, from June 2014 to December 2013, with index esophageal variceal bleed received standard treatment (somatostatin therapy followed by EVL) following which HVPG was measured and patients were randomized to Propranolol or Carvedilol group if HVPG was >12 mm. Propranolol and Carvedilol were increased gradually with target heart rate of 55–60 beats per minute with maximum tolerable dose. HVPG was again measured at 1 month of treatment. Patients were followed up till 1 year to compare rates of rebleeding.

**Results:** Of 129 patients of index esophageal variceal bleed, 59 patients were randomized into Carvedilol \( (n = 30) \) and Propranolol \( (n = 29) \). At 1 month of treatment, decrease in heart rate, mean arterial blood pressure (MAP) and HVPG was significant within each group \( (P = .001) \). Number of HVPG responders (HVPG decrease >20% or below 12 mm Hg) was significantly more in Carvedilol group \( (14/29) \) as compared to Propranolol group \( (12/28) \), \( P \)-value = .04. There was only 1 rebleed in each group at 1 month. At 1 year, rebleed occurred in 4/21 in Carvedilol group out of which two was in responders \( (2/17) \) and two in non-responders \( (2/4) \). Rebleed at 1 year, in Propranolol group occurred in eight patients \( (8/17) \) out of which three was in responders \( (3/10) \) and five in non-responders \( (5/7) \). Attrition was one patient in first month in each group, eight at 1 year in Carvedilol group and eleven in Propranolol group.

**Conclusion:** Carvedilol is more effective in reducing portal pressure in patients with cirrhosis than Propranolol. Though a larger study is required to substantiate this, but results in this study are promising for Carvedilol.

Corresponding author: Anoop Saraya.
E-mail: ansaraya@yahoo.com
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**GRANULOCTYE COLONY-STIMULATING FACTOR MOBILIZES CD34+ CELLS AND IMPROVES SURVIVAL OF PATIENTS WITH DECOMPENSATED CIRRHOSIS**

Ritesh Prajapati, Anil Arora, Praveen Sharma, Naresh Bansal, Vikas Singla, Ashish Kumar
Institute of Liver Gastroenterology and Pancreatico Biliary Sciences, Sir Ganga Ram Hospital, New Delhi, India

**Background and Aims:** Chronic liver disease is a rising cause of mortality and morbidity with median survival of 2–4 years once decompensation occurs. Treatment options are limited. Liver transplantation is the only curative modality but is limited by donor organ availability, operative risk and long-term complications. The contribution of Granulocyte Colony-Stimulating Factor (GCSF) induced mobilization of bone marrow (BM) stem cells to tissue regeneration has been recognised and there is considerable interest
in the potential benefits of GCSF therapy in patients with liver disease. Well-designed, controlled studies are required to fully determine the benefits. We evaluated the efficacy of GCSF therapy in an open labelled randomized control trial.

**Methods:** In a prospective study consecutive patients with decompensated cirrhosis were randomized to GCSF (5 μg/kg/day) for 5 days + standard medical therapy versus standard medical therapy alone. Their baseline, clinical and biochemical parameters were compared with parameters at 6 months follow up.

**Results:** A total of 113 patients (median age 53, range 31–76, 84% males) and 93 age and sex-matched controls were included in the study. The baseline median Child-Turcotte-Pugh (CTP) score and MELD scores were 10 (range 7–13) and 16 (range 4–34), respectively. Baseline characteristics were similar in both groups. All patients were able to successfully complete the 5-day therapy with GCSF without any significant adverse effect requiring stoppage of therapy. Compared to baseline values there was a significant increase in median CD34 count post therapy (1 × 10⁶/mm³ versus 11 × 10⁶/mm³; P < 0.01). Over a period of 6 months CTP score improved (median 9, range 5–12, P < 0.01). In the GCSF group, 16 patients died and 10 patients were lost to follow up while 17 patients died and 19 patients were lost to follow up in standard medical therapy group. According to intention to treat analysis, mortality was significantly higher in standard medical therapy group (P = 0.02). There is no significant change in CTP or MELD score at 6 months from baseline in standard medical therapy group.

**Conclusion:** A 5-day course of GCSF in the dose of 5 μg/kg b.i.d. leads to an effective mobilization of CD34+ cells into the peripheral blood and improvement in survival at 6 months follow up.

Corresponding author: Anil Arora.
E-mail: dranilarora50@hotmail.com

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**Table 1. Laboratory parameters of the subjects in the study (x ± SD).**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-Bil (μmol/l)</td>
<td>11.37 ± 3.7</td>
</tr>
<tr>
<td>ALB (g/dl)</td>
<td>3.90 ± 0.24</td>
</tr>
<tr>
<td>ALT (U/l)</td>
<td>35.50 ± 7.83</td>
</tr>
<tr>
<td>FBS (mmol/L)</td>
<td>05.31 ± 2.943</td>
</tr>
<tr>
<td>Hb (g/dl)</td>
<td>12.47 ± 0.96</td>
</tr>
<tr>
<td>PT (s)</td>
<td>12.72 ± 0.87</td>
</tr>
<tr>
<td>ESR (mm in 1st hour)</td>
<td>12 ± 04</td>
</tr>
<tr>
<td>PLT (10⁶/L)</td>
<td>298.83 ± 71.41</td>
</tr>
</tbody>
</table>

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**NON-HEPATIC SURGERY IN CHRONIC LIVER DISEASE PATIENTS: WHAT ARE THE RISKS?**


All India Institute of Medical Sciences, New Delhi, Delhi, India

**Background and Aim:** Patients with chronic liver disease (CLD) requiring surgical intervention have a higher risk of postoperative complications and liver decompensation. We evaluated the early postoperative outcome of patients with CLD undergoing non-hepatic surgery.

**Methods:** The records of all patients with CLD who underwent non-hepatic surgery in the Department of Gastrointestinal Surgery and Liver Transplantation, All India Institute of Medical Sciences, New Delhi from May 1985 to March 2015 were retrieved from a prospectively maintained database. Statistical analysis was done using SPSS software (version 17.0; SPSS Inc., Chicago, IL, USA).

**Results:** One hundred and eighty-five patients with CLD (mean age 39.5 ± 14.8 years; male:female 137:48) underwent non-hepatic surgery (elective 116; emergency 69) during the specified time period. Hepatitis B and C virus infection (30.8%) and alcohol (17.8%) were the most common causes of CLD. The in-hospital mortality (44.9% vs 7.8%; P = 0.0001), morbidity (78.5% vs 51.7%; P = 0.0001), postoperative liver decompensation (43.1% vs 12.2%; P = 0.0001), ascites (65.2% vs 36.5%; P = 0.0001) and median hospital stay (9 days vs 63 days; range 1–63 days vs 7 days range 1–33 days; P = 0.011) were significantly higher after emergency surgery as compared to elective surgery. The in-hospital mortality, morbidity, liver decompensation and ascites formation rates also significantly increased with worsening Child’s status (Table 1).

**Conclusion:** Postoperative complications are common even in well compensated patients with CLD. Emergency surgery and a worse Child’s status significantly increase the risk of morbidity, mortality and postoperative decompensation.

Corresponding author: Rajesh Panwar.
E-mail: rajeshpanwar81@gmail.com

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