

## **Effectiveness of Terlipressin on Modulation of Portal Vein Pressure after Hepatic Resections in Non-Cirrhotic Patients.**

### **A Systematic Review and Meta-Analysis of Randomised Controlled Trials**

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### **Abstract**

*Background-Objectives:* It has been reported, that high posthepatectomy portal vein pressure (PVP) has deleterious effect on the liver parenchyma and causes posthepatectomy liver failure (PHLF) and increased 90-day mortality. Terlipressin, is widely used to mitigate the effects of portal hypertension. Randomised clinical trials (RCTs) demonstrated encouraging results of use of terlipressin for modulation of increased posthepatectomy PVP. The aim of the present study was to evaluate the effectiveness of the pharmacological modulation of the increased post-hepatectomy PVP after major hepatectomy.

*Methods:* Systematic literature searches of electronic databases in accordance with PRISMA was conducted. Meta-analysis was conducted using both fixed- and random-effects models.

*Results:* Three randomised controlled trials (RCTs) comparing terlipressin versus placebo including 284 patients of pooled 60 studies were selected. Placebo cohort patients were significantly younger by 5 years compared to terlipressin cohort. However, the terlipressin cohort demonstrated significantly shorter intensive care unit (ICU) stay compared to placebo cohort.

*Conclusions:* The first meta-analysis demonstrated that terlipressin cohort patients although significantly older by 5 years had significantly shorter ICU stay compared to placebo cohort. Furthermore, though statistically nonsignificant only 6% of terlipressin patients needed inotropic support compared to 16.4% of placebo cohort.

**Key words:** portal vein pressure, terlipressin, major liver resection, major hepatectomy, randomised controlled trials