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**Endoscopic variceal ligation versus propranolol for the primary prevention of oesophageal variceal bleeding in patients with hepatocellular carcinoma: an open-label, two-centre, randomised controlled trial**

Yang T, Chen W, Hou M, et al. [Endoscopic variceal ligation versus propranolol for the primary prevention of oesophageal variceal bleeding in patients with hepatocellular carcinoma: an open-label, two-centre, randomised controlled trial](https://gut.bmj.com/content/73/4/682). Gut 2024; 73: 682-690. doi: 10.1136/gutjnl-2023-330419

Hepatocellular carcinoma (HCC) and portal hypertension are associated with variceal bleeding (VB) and poorer survival. This open-label randomized controlled trial across two Taiwanese centres, involving 144 patients, compared variceal band ligation (VBL) with non-selective beta blocker (NSBB) for primary prevention against VB.

Patients aged 20-80 with cirrhosis and medium to large varices were included, excluding those with prior variceal intervention, NSBB contraindications, significant life-limiting comorbidities, or pregnancy. VBL was performed every 3-4 weeks, and Propranolol, the selected NSBB, was titrated based on cardiovascular parameters.

Results favoured VBL over NSBB in reducing variceal bleeding incidence in both univariate and multivariate analyses, with most events occurring within the first 2 years in the VBL group. No treatment effect on secondary outcomes was observed with intention-to-treat analysis (other upper gastrointestinal bleeding, other decompensation events, and overall survival). However, higher AST (Aspartate transaminase), bilirubin, and AFP (Alpha-fetoprotein) levels, and BCLC (Barcelona Clinic Liver Cancer) stage C/D, predicted poorer survival, with earlier BCLC stage (A/B) patients benefiting most from VBL in subgroup analysis. Per protocol analysis, demonstrated reduced VB and improved overall survival with VBL.

Yang et al., concluded that VBL is more effective than Propranolol in prevention of first VB in HCC. Study limitations highlighted include the predominant HBV (Hepatitis B virus) aetiology of cirrhosis in trial participants, the low median dose of Propranolol used due to intolerance, and the inability to generalize findings other NSBBs, such as Carvedilol. Additionally, the study was not powered for secondary outcomes or to determine the optimal strategy in portal vein thrombosis. Further research is thus needed to clarify this critical topic.