

# Study shows carvedilol is effective in preventing variceal bleeding in cirrhotic patients

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Patients with cirrhosis are at risk for developing portal hypertension that can lead to the formation, dilation, and rupture of esophageal varices. The annual incidence of esophageal varices is approximately 5% and one third of those will bleed.

In a recent study, researchers from the University of Edinburgh determined carvedilol was more effective in the prevention of variceal hemorrhaging than variceal band ligation (VBL), a common treatment used for the past 20 years. The results of the first clinical trial to test carvedilol for prevention of variceal [hemorrhage](#) are available in *Hepatology*, a journal published by Wiley-Blackwell on behalf of the American Association for the Study of Liver Diseases.

Dhiraj Tripathi and colleagues at the Royal Infirmary of Edinburgh enlisted 152 cirrhotic patients with grade II or larger esophageal varices that had not bled in this study. Researchers treated 77 patients with carvedilol, a non-cardioselective beta-blocker (NSBB) marketed under the trade name Eucardic (Roche), while 75 patients underwent VBL every two weeks until eradication. Patients were administered carvedilol orally at a starting dose of 6.25 mg per day, increasing to a target dose of 12.5 mg per day.

Results showed 10% of patients receiving carvedilol and 23% of patients treated by VBL experienced variceal bleeding during the follow-up

period. There was no difference in [survival rates](#) between the two groups. "The greater efficacy of carvedilol in the prevention of the first variceal bleed is an important finding of this study," said Dr. Tripathi. "No other randomized trial has demonstrated drug therapy to have an advantage over VBL."

While researchers concluded carvedilol had greater effectiveness in treating portal hypertension than endoscopic therapy, there were limitations to their study. "Measurements of hepatic venous-pressure gradient (HVPG) were not included as part of the study, making it difficult to determine if the benefit of carvedilol was due to a greater HVPG response or failure of the VBL, noted Dr. Jaime Bosch of the Hepatic Hemodynamic Laboratory Hospital Clinic in Barcelona, Spain in his editorial published in the September issue of Hepatology. HVPG is a standard measure used to determine portal vein pressure with variceal bleeding occurring at gradients of + 12 mm HG.

Propranolol, another NSBB drug commonly used to treat portal hypertension, was not included as part of this study. "Further studies are required to assess whether carvedilol is a better option than standard NSBB," added Dr. Bosch.

More information: "Randomized Controlled Trial of Carvedilol versus Variceal Band Ligation for the Prevention of the First Variceal Bleed," Dhiraj Tripathi, James W. Ferguson, Narendra Kochar, Joanna A. Leithead, George Therapondos, Norma C. Mcavoy, Adrian J. Stanley, Ewan H. Forrest , William S. Hislop, Peter R. Mills, Peter C. Hayes, Hepatology, 2009 ([DOI: 10.1002/hep.23045](https://doi.org/10.1002/hep.23045)).

Source: Wiley ([news](#) : [web](#))

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