

Angioplasty may be feasible for liver transplantation candidates with heart disease

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A small, retrospective study determined that percutaneous coronary intervention (PCI) was safe in patients with significant coronary artery disease (CAD) who were referred for liver transplantation. Larger studies are needed to determine the effectiveness of angioplasty in patients with end-stage liver disease (ESLD). Details of the study are available in the July issue of *Liver Transplantation*, published by Wiley-Blackwell on behalf of the American Association for the Study of Liver Diseases.

Medical evidence states that ESLD is associated with increased cardiovascular risk and CAD has been reported in up to 28% of this patient population, with those 50 years of age having the highest prevalence. Further studies have found that despite medical management or surgical revascularization, the three-year mortality of patients with CAD who receive [liver transplants](#) is 26% to 50%. Moreover, [heart bypass surgery](#) prior to transplantation can exacerbate [liver failure](#) and increase mortality risk.

"Our research is the first to demonstrate the feasibility and safety of PCI in patients with ESLD and thrombocytopenia who are candidates for [liver transplantation](#)," said Babak Azarbal, MD, interventional cardiologist at Cedars-Sinai Medical Center and lead author. In the past, PCI with stenting had not been used in patients with ESLD due to increased bleeding complications from peri- and post-procedural regimens that reduce the possibility of blood clots. These required anticoagulation and anti-platelet therapies could increase risk in ESLD

patients with low platelets (thrombocytopenia) and bleeding disorders (coagulopathy).

The current study included 16 patients with ESLD who had significant CAD, but were acceptable candidates for liver transplantation. Fifteen patients underwent PCI using [bare-metal stents](#) and one patient had [balloon angioplasty](#) alone. Successful PCI was achieved in 94% of patients, with a single case of suboptimal residual stenosis following stenting. All patients remained clinically stable at one month following the intervention, with 9 patients added to the waiting list for liver transplantation and 3 who received liver transplants.

This research found PCI to be a safe and feasible option for ESLD patients with significant heart disease. Given the small sample size and retrospective nature of this study, the authors caution that their results may not be representative of the broader population of patients with ESLD and CAD. "Further investigation is needed to determine whether PCI improves clinical outcomes in ESLD patients with significant heart disease who otherwise would not be candidates for liver transplantation," concluded Antoine Hage, MD, Director of Solid Organ Transplant Cardiology at Cedars-Sinai Heart Institute in Beverly Hills, California and co-author of the study.

More information: This study is published in *Liver Transplantation*.

Provided by Wiley

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