diagnosis requires psychometric testing and neuropsychological evaluation. The investigators did not describe how HE evaluation was performed, explaining the purported low rate observed in their cohort. There was also no mention of known long-term complications from chronic portosystemic shunting, such as the development of liver masses (sometimes malignant), portopulmonary hypertension, or hepatopulmonary syndrome.

The investigators briefly mention the meso-Rex bypass (MRB). This operation has been shown to restore portal venous blood flow in children with portal hypertension from EHPVO. The MRB has been shown to be superior to portosystemic shunts in reversing the sequelae of portal hypertension and long-term effects of portosystemic shunting, including encephalopathy, that may become more consequential in the adult setting. The MRB has been successfully performed in adults, leading to liver regeneration and resolution of splenomegaly. In a recently published series, the patency rate of MRB in nontransplant adults without cirrhosis was 73% with a median follow-up of 22 months. Only 4 patients required a percutaneous intervention postoperatively (36%), successfully restoring shunt patency in 2.

The MRB is feasible in adult patients without cirrhosis with portal hypertension caused by EHPVO. The candidacy of patients for an MRB should be evaluated before considering interventions that may lead to the development of long-term systemic complications from chronic portosystemic shunting.

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CONFLICT OF INTEREST
Nothing to report.

AUTHOR CONTRIBUTIONS
Caroline Lemoine: drafting the article for important intellectual content. Riccardo Superina: drafting the article for important intellectual content, final approval of the version to be published.

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Reply

We read with interest the letter by Lemoine about our study describing TIPS in patients with noncirrhotic patients who are refractory to standard of care. Their objections focus on HE, long-term follow-up, and the role meso-Rex bypass (MRB) in adults.

There exists a unique patient population of patients with noncirrhotics who are afflicted with portal hypertension, bleeding, and abdominal pain secondary to extrahepatic portal vein occlusion (EHPVO). These are due to PVT (hypercoagulable conditions), umbilical vein catheterization, or surgery (gastric sleeve/bypass). Current treatments ignore the EHPVO anatomic issue and only address the sequelae (beta blockers, banding, narcotics, bowel resection). Through multidisciplinary consensus, interventional radiologists (IRs), hepatologists, and surgeons address this unmet medical need. Capitalizing on our expertise, we devised the portal vein recanalization–TIPS (PVR-TIPS) to directly address EHPVO using percutaneous transsplenic/mesenteric approaches, and have successfully overcome the “impossible” TIPS (Entezari et al. 2021).

The first objection relates to HE and implies under-reporting. While neuropsychiatric testing (NPT) may be
optimal for assessing HE, suggesting this is routine is a spurious claim. In fact, few studies report NPT unless explicitly studying HE. Ironically, only a minority of patients in the surgical study quoted underwent NPT. In our study, HE was assessed by three experienced hepatologists.

The second relates to maturity of follow-up. We agree and acknowledge in the manuscript our intent to report long-term outcomes, especially related to future risk of minimal HE, cardiomyopathy, HCC, and TIPS patency.

Before addressing the controversial issue of MRB in adults, contextualizing the pediatric experience is warranted. MRB is performed by a select few with requisite expertise, carries significant morbidity (hemorrhage, re-operation, shunt thrombosis), fails in 20%, and as such is often salvaged by spleno-renal shunts (ironically sometimes exacerbating HE). This is not a benign operation. Interestingly, MRB was found to be no better than porto-systemic shunts in a recent meta-analysis of 257 children (Yamoto et al. 2021). Nevertheless, this is where the clear role of MRB ceases. In our cohort, more than 70% exhibited splenic/superior mesenteric vein thrombosis, explicit contraindications to MRB by the authors’ own references. Large cavernomas represent a significant intraoperative hemorrhage risk even in the most skilled hands. Portal vein plasticity and tolerance to augmented flow in middle-aged adults after years of scarring is limited.

Finally, the authors do not appear to fully understand the vascular anatomy in noncirrhotic adults with cavernoma. PVR-TIPS decompresses the cranial segment of the portal circulation, enhances splenic venous outflow, and relieves portal hypertension. The caudal segment is often unchanged, with mesenteric drainage persisting through a less pressurized cavernoma. The presence of cavernoma at baseline is why patients do not present with HE, and the persistence of a less pressurized cavernoma draining the mesentery following PVR-TIPS explains the lack of HE.

There is insufficient evidence to routinely adopt MRB in adults. The referenced 14-patient study spanning 21 years only further affirms the need for center expertise. Rather than dismissing PVR-TIPS, we would proffer a contrarian approach. Given their world-class on-site IR expertise, we recommend adding PVR-TIPS to their therapeutic arsenal in age/size appropriate candidates, rather than a “MRB for all” approach. As the adage goes, just as kids aren’t small adults, adults aren’t just big kids.

CONFLICT OF INTEREST

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Letter to the editor: Liver transplantation following severe acute respiratory syndrome-coronavirus-2 vaccination–induced liver failure

To the editor,
Several case reports have described development of liver injury following severe acute respiratory syndrome-coronavirus 2 (SARS-CoV-2) vaccination in Hepatology.⁴,⁵ These cases showed autoimmune hepatitis (AIH) features, and all cases responded well to