FLR increase was 63.9 cc/week ± 31.6. Mean kinetic growth rate was 3.38%/week ± 2.27. Mean time from procedure to surgery was 48.3 days ± 26.4.

Conclusions: Liver venous deprivation is a safe and effective procedure that allows FLR hypertrophy in heavily pretreated patients with colorectal cancer liver metastasis. Further studies are needed to confirm these results and compare them to portal vein embolization alone.

Abstract No. 27

Proton pump inhibitor use is associated with increased risk of post–transjugular intrahepatic portosystemic shunt hepatic encephalopathy: replication in an independent patient cohort

R. Dai1, C. Kim2, P. Suhocki2, J. Martin2, W. Pabon-Ramos3, A. Sag2, B. Wildman-Tobriner2, T. Smith2, J. Ronald2; 1Duke University School of Medicine; 2Duke University Medical Center

Purpose: Hepatic encephalopathy (HE) is a common complication of transjugular intrahepatic portosystemic shunt (TIPS) procedures. Proton pump inhibitor (PPI) use has recently been implicated as a risk factor for HE, potentially due to alterations in the gastrointestinal tract microbiome or effects on ammonium ion excretion. Although generally supporting an association between PPI use and HE, multiple meta-analyses have reported heterogeneity and publication bias, and only two previous studies have examined the role of PPI use in post-TIPS HE. Therefore, further evaluation of the role of PPI use in post-TIPS HE is warranted. The purpose of this study was to determine whether PPI use is associated with an increased risk of post-TIPS HE in an independent patient cohort.

Materials and Methods: This single-institution retrospective study analyzed 86 patients (54 male, mean age 58.2) following TIPS insertion from January 1, 2017, to December 31, 2019. Dates of PPI usage and episodes of new or worsening HE were extracted from medical records. Poisson regression with generalized estimating equations was used to test for an association between PPI use and HE, while multiple meta-analyses have reported heterogeneity and publication bias, and only two previous studies have examined the role of PPI use in post-TIPS HE. Therefore, further evaluation of the role of PPI use in post-TIPS HE is warranted. The purpose of this study was to determine whether PPI use is associated with an increased risk of post-TIPS HE in an independent patient cohort.

Results: After TIPS creation there were 49 episodes of new or worsening HE among 35 patients on chronic PPI therapy (1.88 episodes per person-year), 44 episodes among 35 patients on chronic PPI therapy (1.88 episodes per person-year), 44 episodes among 35 patients on chronic PPI therapy (1.88 episodes per person-year). In univariable analysis PPI use was associated with an increased risk of post-TIPS HE in an independent patient cohort. In multivariable analysis PPI use was associated with an increased risk of post-TIPS HE in an independent patient cohort. In multivariable analysis PPI use was associated with an increased risk of post-TIPS HE in an independent patient cohort.

Conclusions: In an independent patient cohort PPI use was associated with increased risk of post-TIPS HE in a dose dependent manner. In addition to being a reproducible risk factor, PPI use may represent one of the few modifiable risk factors associated with post-TIPS HE.

Abstract No. 29

Percutaneous mesocaval shunt creation: a retrospective review of 5 patients with midterm outcomes

J. Adler5, N. Kokabi1, Z. Bercu1, M. Whitmore1, B. Majdalany3; 1Emory University School of Medicine

Purpose: While transjugular intrahepatic portosystemic shunt (TIPS) has been shown to relieve hepatic venous obstruction and is a viable alternative to liver transplantation (LT) in Budd-Chiari syndrome (BCS), the effect of TIPS on liver function in patients with BCS is unclear, particularly outside the immediate post-treatment period.

Materials and Methods: 20 patients with BCS who underwent TIPS from 1999-2018 were included. Demographic data and clinical data at the time of TIPS procedure, 6-month, and 12-month post-TIPS were collected.

Results: There were 13 (65%) women and 7 (35%) men with a mean age of 42.6 ± 12.8 years; 8 (40%) patients had a JAK-2 mutation. Time from BCS diagnosis to TIPS procedure was 10.3 ± 23.3 months. Median follow-up time was 8.4 years. The ascitic burden significantly decreased from pre-TIPS (moderate ascites 10/17 (58.8%) to 6 (moderate ascites 1/16 (6.3%), P = 0.0001) and 12 (1/13 (7.7%, P = 0.0007)) months follow-up, respectively. Hepatic encephalopathy was present in 5/17 (29.4%) pre-TIPS, 3/16 (18.8%) 6-month post TIPS, and 4/13 (30.8%) 12-months post-TIPS. Serum albumin significantly improved from pre-TIPS (3.0 ± 0.6) through 6 (3.5 ± 0.7 (P = 0.03)) and 12 (3.7 ± 0.6 (P < 0.01)) month follow up. Similarly, total protein significantly improved at 6-months after TIPS (pre-TIPS 6.4 ± 1.4, 6-month 7.3 ± 1 (P = 0.03)). Child-Pugh Score significantly decreased with a score of 9.4 ± 1.8 pre-TIPS, as compared to 7.6 ± 1.8 at 6-months (P = 0.007), and 7.4 ± 1.5 (P = 0.05) at 12-months post TIPS. 15 (75%) patients required TIPS revision with 4/15 (26.7%) within 30 days; 2/15 (13.3%) between 1 month and 1 year, and 9/15 (69.2%) after 1 year. 8 (40%) patients underwent LT at mean 7.68 ± 6 years after TIPS. 3 (15%) patients died at 1.9, 9.8, and 16.9 years following TIPS.

Conclusions: In patients with BCS, TIPS significantly resolves symptoms and improves liver synthetic function at 1-year. Despite the frequent need for revision, TIPS for BCS also has good long-term durability and is able to prolong time to LT in a large proportion of patients.