P-L17  Post-liver transplant inferior vena cava stenosis in a large volume UK centre

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Background: Inferior vena cava stenosis (IVCS) is a rare complication of liver transplantation with a reported incidence rate of 3%. Limited clinical consensus exists on the management of IVCS. We report the management and outcomes of patients with IVCS at our transplant centre.
Methods: Relevant data were collected from adult patients who underwent liver transplantation at our centre between October 2014 and August 2020. These included demographics, investigation and management details with regards to IVCS. Values presented as % of total and median with interquartile range (IQR).

Results: A total of 636 liver transplants were performed during the study period, of which 48 (7.6%) patients were investigated for possible IVCS. Of those, 14 (2.2% of total) were found to have IVCS, 85.7% (n = 12) were female. Only 2/14 were re-transplants and pre-transplant portal vein thrombus was present in 3 cases (21.4%). 10 livers (71.4%) were DBD donors. Normothermic machine perfusion was used in 4/14 patients. All 14 recipients found to have IVCS had had an implantation using a modified piggyback cavocavostomy technique. The IVCS was identified at a median of 25.5 days (19.7-30.8 days) following transplantation within the suprahepatic IVC in 92.9% (n = 13). Hemi-azygos collateralisation was seen in 4 cases (28.6%). 8 of the 14 recipients underwent intervention for IVCS, 6 patients were managed with balloon venoplasty, 1 patient required an IVC stent and 1 was managed surgically. Six of the recipients with IVCS died, 4 of whom had an intervention for their stenosis and 3 of these were within 90 days of their transplant. Pressures measured at the anastomotic stricture were higher in those who succumbed (median of 21 Vs 12.5 mmHg; p=.017).

Conclusions: At our centre, cava-replacement technique was not associated with IVCS. Patients with more significant strictures (as evidenced by higher pressures at the anastomotic stenosis) may have an increased mortality risk.