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## Western Surgical Association 2020 Annual Meeting

Monday, November 9, 2020 4:00pm – 6:15pm Pacific Time – Virtual Meeting –

## Q 9. THE IMPACT OF CANDIDATE AGE ON ACCESS TO LIVER TRANSPLANTATION FOR HEPATOCELLULAR CARCINOMA

Presenter: Ola Ahmed MD | Washington University in Saint Louis O Ahmed, N Vachharajani, SH Chang, Y Park, AS Khan, WC Chapman, MB Doyle

**Background**: Recent estimations suggest a rising incidence of hepatocellular carcinoma (HCC) in the US and cancer related deaths are expected to surpass both breast and colorectal cancers by 2030. Liver transplantation (OLT) has offered an effective alternative treatment for unresectable disease, however the feasibility of OLT in older patients remains conflicting and consensus guidelines are lacking in terms of a cut-off age range. The goal of this study was to evaluate the influence of age on access to liver grafts and compare disease- specific outcomes.

**Methods**: We conducted a retrospective review of 1629 patients diagnosed with HCC from a prospectively maintained database from January 1st 2002 and December 31st 2019. The study focussed on listing for and progression to OLT among patients older and younger than a 65-year age cut-off, with recipient age being the primary variable. Underlying disease etiology and clinical stage were also considered in the analysis. Disease-specific and long-term oncologic outcomes were further analysed.

**Results**: Four hundred and thirty-five patients underwent OLT for HCC during the study period (n =  $319 \le 65$  years, n =  $116 \ge 65$  years). Clinical stage was comparable in both groups (p = 0.083). Candidate delisting from the OLT waiting list was similar in both older and younger age groups (p = 0.527). Hepatic cirrhosis was a consistent factor influencing the likelihood of undergoing OLT in all age groups. On further candidate age analysis, patients older than 65 years were less likely to be considered for OLT (p < 0.001). When the candidate age cut-off was further extended, patients older than 75 years were less likely to receive grafts (p<0.001). One-, 3- and 5-year overall and disease-free survival rates for transplanted patients were comparable in both older and younger age groups (p=0.295, p=0.156).

**Conclusion**: Although older candidates are less likely to be considered for OLT in the management of HCC, judicious matching can lead to disease free and overall survival outcomes that are comparable to their younger counterparts. Older recipient age does not always denote marginality in liver transplantation and previous misconceptions of worse long-term oncologic outcomes need to be challenged.