

LIVING DONOR LIVER TRANSPLANTATION FOR HEPATOCELLULAR CARCINOMA BEYOND UCSF CRITERIA: CAN WE ACHIEVE A MODEST LONG-TERM SURVIVAL? A SINGLE CENTER RETROSPECTIVE ANALYSIS OF USING EXTENDED CRITERIA

Ashok Thorat and Long-Bin Jeng

China Medical University Hospital, Taiwan

Hepatocellular carcinoma (HCC) is the fifth most common cancer and the third most frequent cause of cancer deaths worldwide. After its introduction for liver transplantation (LT) in HCC patients, Milan's criteria were universally validated and, also, was accepted as allocation criteria of UNOS in 2001 & Eurotransplantation in 2006. However, due to restrictive nature of the Milan's criteria and ever-increasing HCC patient cohort, UCSF criteria was introduced which was first modest attempt to expand the criteria. In this study, we present our experience of LDLT for HCC patients beyond the UCSF criteria.

Materials and Methods: From September 2002 to September 2017, a total of 859 living donor liver transplantation (LDLT) surgeries were performed at China Medical University Hospital, Taiwan. Database of the 403 patients of HCC that underwent LDLT was analysed and patients with HCC beyond the UCSF criteria were (n=176) were further studied for long-term outcome. At our center, only extrahepatic metastasis was considered absolute contraindication. Major vascular invasions single regional LN metastasis or adrenal gland metastasis only was considered as a relative contraindication. The level of AFP, size and No of tumor was not considered as exclusion factor. The patients were categorized as per the degree of differentiation of the tumor on histopathological examination (HPE).

Results: 176 patients (43.67%) had the HCC beyond the criteria whereas 227 patients (56.32%) were within UCSF criteria. 5-year survival achieved in patients beyond UCSF was 48.68% versus 74.65% 5-year survival for patients within UCSF criteria (201 within Milan's criteria, 26 beyond Milan but within UCSF criteria). The study cohort was further categorized depending upon the degree of differentiation of HCC. 78 patients (44.31%) had HCC that was well to moderately differentiated whereas in 98 patients (55.68%) the tumor HPE showed poorly differentiated HCC. 5-year survival for the well differentiated HCC patients was 69.08% where as the outcome was inferior in poorly differentiated HCC with a 33.99% 5-year survival (Figure 1). Patients with AFP >1000 ng/ml showed a dismal prognosis with a 5-year survival of only 21% patients. For the patients with AFP < 1000, the 5-year survival was 58%.

Conclusions: Extended criteria for HCC in LDLT can achieve a modest long-term survival. Features of biological tumor behavior, such as tumor grading and vascular invasion have impact on recurrence of HCC after LDLT. Tumors with well differentiated morphology increases long-term survival even further for patients beyond the UCSF criteria.

ashsurg@gmail.com