



Infectious diseases, malignancies & long term challenges

EP_537

ROLE OF LAPAROSCOPIC MICROWAVE ABLATION BEFORE LIVER TRANSPLANTATION: INSIGHT FROM THE MOST EXTENSIVE WORLDWIDE SERIES

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Background: The role of laparoscopic microwave ablation (LMWA) as a specific treatment modality for patients with hepatocellular carcinoma (HCC) in the context of potential liver transplantation (LT) is still controversial. We sought to analyse the prognostic factors of patients with HCC undergoing LT after LMWA.

Methods: We retrospectively analysed the most extensive single-centre series of LMWA for HCC, focusing on patients receiving LT during the follow-up. Patients deemed ineligible for liver resection or percutaneous ablation were considered for LMWA. The clinical intent of the LMWA indication might be curative (one to three HCC nodules smaller than three cm in child A cirrhosis) or noncurative (beyond curative criteria, downstaging intent). Uni and multivariable survival analyses were performed.

Results: Between January 2014 and December 2023, 239 out of 1,371 HCC patients undergoing LMWA (17.1%) at our institution were transplanted, representing the study cohort. Among the enrolled patients, 55% were older than 60 years, 13% were female, 58% had viral cirrhosis, 32% had a MELD score greater than 10, 30% had nodules larger than 3 cm in diameter, 21% had more than three nodules, and 9% had an AFP value exceeding 100 ng/ml. LMWA was initially used with the aim of downstaging in 149 (62%), whilst 90 patients underwent salvage LT following curative-intent LMWA. Furthermore, 73 (31%) patients underwent more than one LMWA procedure, and 65% of them waited over 12 months before receiving LT. The one-, three-, and five-year survival rates were 96%, 88%, and 78% for patients receiving treatment with curative intent, while they were 99%, 90%, and 82% for those undergoing downstaging intent (p=0.40). Initial clinical intent, time before LT, and number of LMWA procedures were not associated with the post-LT outcome. Only initial high alpha-fetoprotein levels and impaired liver function were negative prognostic factors.

Conclusions: LMWA can be safely used before LT with a curative or a downstaging intent, assuring a high survival outcome.

EP_538

LIVER TRANSPLANTATION: A THERAPEUTIC OPTION FOR HEPATITIS B FLARE POST ONCO-HAEMATOLOGICAL TREATMENT

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Background: Liver transplantation (LT) is the curative treatment for acute and chronic hepatitis B virus (HBV) infections. However, LT indication becomes challenging when HBV flare arises following chemotherapy for onco-haematological diseases due to concerns about cancer recurrence. Limited outcome data make decision-making difficult. We evaluated LT outcomes for HBV flare in patients with recent history of onco-haematological diseases.

Methods: We reviewed cases between 2006 and 2024 to identify LT for HBV flare following chemotherapy for onco-haematological diseases. Data included cancer type, chemotherapy, HBV prophylaxis, donor and recipient characteristics, and post-LT outcomes. Range or incidences are given.

Results: Among 730 LT cases, 5 involved HBV flare following chemotherapy for non-Hodgkin (n=4/5) and Hodgkin lymphoma (n=1/5). Patients (aged 46–59y, 2/5 male) received rituximab-based regimens (n=4/5). One patient received tenofovir prophylaxis for known past HBV infection. HBV flare occurred 0–2 months after chemotherapy. All patients had positive HBV DNA and complete lymphoma response at the time of HBV flare. Antiviral treatment was unsuccessful in all cases. Three patients required ICU admission, and the model for end-stage liver disease score at LT ranged 29–40 points. All LT were performed from brain-dead donors aged 21–81y, with cold ischaemia times ranging 202–588min. Post-LT course was uneventful, with ICU stays of 0–10 days and hospitalization of 26–47 days. All patients received hepatitis B immunoglobulin and 3 received tenofovir post-transplant. Over a median 8yr of follow-up, no HBV recurrence occurred, and graft, patient and cancer recurrence-free survival rates were 100%.

Conclusions: LT is a viable life-saving option for patients experiencing HBV flare following recent onco-haematological disease with early complete remission. While our results demonstrate excellent mid-term patient and recurrence-free survival rates, validation of this therapeutic approach requires further evaluation through larger, multicentre studies with longer follow-up—especially given that these patients would otherwise face a poor prognosis.