

## Electrochemotherapy of Portal Vein Tumor Thrombus as Downstaging to Liver Transplantation

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**Abstract :** Liver transplantation (OLT) is contraindicated in Portal Vein tumor Thrombosis (PVTT) from Hepatocellular Carcinoma at hepatic hilum (pH-HCC) Surgery, Thermal ablation and chemotherapy show poorer outcomes. Electrochemotherapy (ECT) has been successfully used in patients with pH-HCC with PVTT. We report the results of ECT as downstaging aimed to definitive cure by OLT. F.P. 53 years HBV related Cirrhosis Child-Pugh B7 class; EGDS F2 esophageal Varices. Diabetes. April 2016 : Enhanced Computed Tomography (CT) detected HCC (n.3 nodules in VII-VIII-VI; diameter range=25 cm) and PVTT of right portal vein. The patient was considered ineligible for OLT. May 2016: first ablation session with percutaneous Radiofrequency-ablation (RFA) of 3 HCC-nodules. August 2016: second ablation session with ECT of PVTT. CT October 2016: disappearance of PVTT and patent right portal vein. No intraparenchymal recurrence. CT March 2017: No recurrence in portal vein and in the left lobe. local recurrence in the VII-VIII segments. May 2017 : transarterial chemoembolization (TACE) of right lobe recurrences. CT October 2017: patent right portal vein. No recurrence. The patient was reconsidered for OLT. He underwent OLT in April 2018. At 36-months follow-up, no intrahepatic recurrence of HCC occurred. March 2021: enhanced CT and PET/CT detected a single small nodule (1.5 cm) uptaking tracer in the left upper pulmonary lobe, no hepatic recurrence. CT-guided FNB showed metastasis from HCC. June 2021: left lung upper lobectomy. At the current time the patient is alive and recurrence-free at 64 months follow-up. ECT could be an ineffective technique as pre-OLT downstaging in HCC with PVTT.

**Keywords :** liver tumor ablation, interventional ultrasound, electrochemotherapy, liver transplantation

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