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Preoperative Transcatheter Arterial Chemoembolization for Surgical Resection of Huge Hepatocelluar Carcinoma (≥ 10 cm) A Multicenter Propensity Matching Analysis

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Introduction : Surgical resection for hepatocellular carcinoma (HCC) is potentially curative, but long-term survival remains unsatisfactory. There is currently no effective neoadjuvant or adjuvant therapy for HCC. We sought to evaluate the impact of preoperative transcatheter arterial chemoembolization (TACE) on long-term prognosis after surgical resection of huge HCCs (\geq 10 cm).

Methods: Using a multicenter database, consecutive patients who underwent curative-intent resection for huge HCC without macrovascular invasion between 2004 and 2014 were identified. The association between preoperative TACE with perioperative outcomes, long-term overall survival (OS) and recurrence-free survival (RFS) was assessed before and after propensity score matching (PSM).

Results : Among the 377 enrolled patients, 88 patients (23.3%) received preoperative TACE. The incidence of perioperative mortality and morbidity was comparable among patients who did and did not undergo preoperative TACE (3.4% vs. 2.4%, P=0.704, and 33.0% vs. 31.1%, P=0.749, respectively). PSM analysis created 84 matched pairs of patients. In examining the entire cohort as well as the PSM cohort, median OS (overall cohort: 32.8 vs. 22.3 months, P=0.035, and PSM only: 32.8 vs. 18.1 months, P=0.023, respectively) and RFS (12.9 vs. 6.4 months, P=0.016, and 12.9 vs. 4.1 months, P=0.009, respectively) were better among patients who underwent preoperative TACE versus patients who did not. After adjustment for other confounding factors on multivariable analyses, preoperative TACE remained independently associated with a favorable OS and RFS after resection of huge HCC.

Conclusions : Preoperative TACE did not increase perioperative morbidity or mortality, yet was associated with an improved OS and RFS after liver resection of huge HCC.

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