

Long-term Oncologic Prognosis After Hepatectomy For Hepatocellular Carcinoma: Differences Between The Young (≤ 35 Years Old) And The Elderly (≥ 70 Years Old)

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Background : While hepatocellular carcinoma (HCC) is the most common malignancy in the elderly worldwide, it is also common among younger individuals in areas with endemic hepatitis B virus infection. The characterized differences in long-term oncological prognosis among young versus elderly patients after R0 liver resection for HCC were sought in this study.

Methods : Using a Chinese multicentre database, consecutive patients who underwent R0 liver resection for HCC between 2007 and 2019 were retrospectively analysed. After excluding middle-aged (36-69 years old) patients, overall survival (OS), cancer-specific survival (CSS), and time-to-recurrence (TTR) were compared between young (≤ 35 years old) versus elderly (≥ 70 years old) patients using propensity score matching (PSM).

Results : Among 531 enrolled patients, there were 192 (36.2%) and 339 (63.8%) patients categorized as young versus elderly, respectively. PSM analysis created 140 pairs of matched patients. In the PSM cohort, 5-year OS was comparable among young versus elderly patients (51.7%vs.52.3%, $P=0.533$). Young patients did, however, had a higher 5-year TTR (62.1% vs. 51.6%, $P=0.011$) and a worse 5-year CSS (54.0%vs.64.3%, $P=0.034$) than elderly patients. On multivariable Cox-regression analyses, young patient age remained independently associated with an increased TTR rate (HR 1.62, $P=0.016$) and a decreased CSS rate (HR 1.69, $P=0.021$) compared with elderly patients.

Conclusions : Following R0 liver resection for HCC, younger patients were at a higher risk of recurrence, yet elderly patients had a better CSS rate. Thus, enhanced surveillance for HCC recurrence should be implemented for young patients.

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