

Clinical Features Of Recurrence After Hepatic Resection For Early-stage Hepatocellular Carcinoma And Long-term Survival Outcomes Of Patients With Recurrence: A Multi-institutional Analysis

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Background : A potentially curative hepatic resection is the optimal treatment for hepatocellular carcinoma (HCC), but most HCCs, even at an early stage, eventually recur after resection. To investigate clinical features of initial recurrence and long-term prognosis of patients with recurrence after curative resection for early-stage HCC.

Methods : From a multicenter database, patients who underwent curative hepatic resection for early-stage HCC (Barcelona Clinic Liver Cancer [BCLC] stage 0/A) were retracted. Time to initial recurrence, patterns of initial recurrence, and treatment modalities for recurrent tumors were investigated. Univariate and multivariate analysis were used to identify independent risks associated with postoperative recurrence, as well as post-recurrence survival (PRS) for patients with recurrence.

Results : Among 1,424 patients, 679 (47.7%) developed recurrence at a median follow-up of 52.9 months, including 412 (60.7%) early recurrence (≤ 2 years after surgery) and 271 (31.3%) late recurrence (> 2 years). Independent risks of postoperative recurrence included cirrhosis, preoperative alpha-fetoprotein level > 400 ug/L, tumor size > 5 cm, multiple tumors, satellites, microvascular invasion, and intraoperative blood transfusion. Multivariate analysis revealed that receiving irregular recurrence surveillance, beyond Milan criteria of the initial tumor, early recurrence, BCLC stage B/C of the recurrent tumor, and non-curative treatments were independently associated with poorer PRS.

Conclusions : Nearly half of patients with early-stage HCC experienced recurrence after resection. Understanding recurrence risks may help identify patients at high risk of recurrence who may benefit from future adjuvant therapies. Meaningful survival even after recurrence can still be achieved by postoperative regular surveillance and curative treatment.

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