

### **Risk Factors for Recurrence of Hepatocellular Carcinoma after Curative Resection**

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#### **Abstract**

**Background/Aims:** Hepatic surgical resection is one of the most effective treatment for hepatocellular carcinoma (HCC). However, recurrence of HCC (HCCR) is still very common among operated patients, and its risk factors still remains unclear.

**Materials and Methods:** We have conducted a retrospective study of 56 patients operated for HCC in our medical center during April 2008 through March 2016, to analyze the risk factors for HCCR. The ideal cutoff values of laboratory parameters was defined using the Receiver Operating Characteristic (ROC) curve analysis, and logistic regression model analyses were used to calculate odds ratios with 95% CI. P values less than 0.05 were considered as statistically significant.

**Results and Conclusion:** All 56 patients accrued to this retrospective study underwent curative resection of HCC. The patients comprised of 11 female and 45 male, with the median age of 68.5years. Twenty-three out of 56 (40.1%) patients experienced HCC recurrence, and the Median time of recurrence was 14.5 months. The 5-year cancer-free survival rate was 42.5%. Univariate analysis showed that the use of intermittent Pringle Maneuver (IPM:  $p=0.036$ ), limited resection (LR:  $p=0.011$ ), and cancerous infiltration of the capsule (fc-inf;  $p=0.017$ ), were associated with HCC recurrence. According to the multivariate analysis, using IPM ( $p=0.008$ ), LR ( $p=0.012$ ), and fc-inf ( $p=0.014$ ), were risk factors for patients with HCCR.

**Key words:** hepatocellular carcinoma, risk factors, recurrence