

## LIVER RESECTION FOR HEPATOCELLULAR CARCINOMA: A MULTIVARIATE ANALYSIS OF FACTORS ASSOCIATED WITH IMPROVED PROGNOSIS. THE ROLE OF CLINICAL, PATHOLOGICAL AND SURGICAL RELATED FACTORS

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**Aims and background:** Hepatocellular carcinoma (Hcc) is the third most common cause of cancer death. The aim of this study is to examine the factors associated with improved prognosis in Hcc after liver resection.

**Patients and methods:** From September 1989 to March 2005, 134 consecutive patients had liver resection for Hcc on cirrhosis at our department. We performed 54 major liver resections and 80 limited resections. All patients enrolled in the study were followed-up three times during the first year after resection and twice the next years.

**Results:** In-hospital mortality rate was 7.4%, about 50% of these cases were Child-Pugh B patients. Morbidity rate was 47.7%, caused by the rising of ascites, temporary liver impairment function, biliary fistula, hepatic abscess, hemoperitoneum and pleural effusion. Overall survival resulted to be influenced by

etiology ( $P = 0.03$ ), underlying liver disease, in particular Child A vs BC ( $P = 0.04$ ), Endmondson-Steiner grading ( $P = 0.01$ ), the absence of a capsule ( $P = 0.004$ ), the presence of more than one lesion ( $P = 0.02$ ), lesion's size over 5 cm ( $P = 0.04$ ), Pringle maneuver length over than 20 minutes ( $P = 0.03$ ), an amount of resected liver volume lesser than 50% of total liver volume ( $P = 0.03$ ), and the relapse of Hcc ( $P = 0.01$ ).

**Conclusions:** The treatment of hepatocellular carcinoma should be both the most radical to obtain the best outcome and to reduce the recurrence's rate, and the most suitable according to the patient's condition, lesion's characteristics and underlying liver disease: because of the large number of factors affecting the outcome of Hcc, unfortunately, we are still far from an agreement upon a group of criteria useful to select the best candidates for liver resection.

**Key words:** cirrhosis, hepatocellular carcinoma, liver resection, outcome, prognosis, selection criteria.