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Liver transplantation in hepatocellular carcinoma

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Abstract. The initial enthusiasm for orthotopic liver transplantation (OLT) in patients with hepatocellular carcinoma (HCC) soon vanished as early recurrences appeared [3, 5, 6]. OLT in HCC remains a controversial issue. We evaluated the efficacy of preoperative studies to select No–Mo patients and determined whether pT stage and histopathological grade (G) have a prognostic significance. A group of 25 patients, all previously thoroughly studied to rule out extrahepatic disease, underwent OLT for HCC. All patients were pNo after pathological study and none of the six patients who died in the postoperative period showed extrahepatic dissemination at necropsy (pMo). The recurrence rate was 43%. The 2 and 5 years actuarial survival was 62% and 43% respectively. The pT and G were not prognostic factors for long-term survival. We think that HCC is still a good indication for OLT because almost 50% of patients have good survival prospects.

Key words: Liver transplantation – Hepatocellular carcinoma – Histopathological staging

Hepatocellular carcinoma (HCC) is one of the liver diseases for which orthotopic liver transplantation (OLT) is indicated. The results reported until now show that the long-term survival is very poor because of a high recurrence rate of the tumour. In order to diminish the recurrence rate after OLT the selection of patients with HCC must be very strict.

The aim of our study was to evaluate the efficacy of pretransplant screening to select patients without locoregional lymph nodes or distant metastases (No-Mo) and to determine whether the T stage and histopathological grade (G) have prognostic significance in long-term survival.

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Materials and methods

Between February 1984 and December 1990 a total of 25 patients with HCC underwent OLT. The patients' ages ranged from 28 to 64 years (mean, 51.5 years). There were 17 males and 8 females. In screening for extrahepatic spread, ultrasonographic examination of the upper abdomen, CT scan of the thorax, abdomen and cranium and radioisotope bone scanning were carried out routinely. In addition, 22 patients had an exploratory mini-laparotomy. All specimens taken from excised livers were evaluated microscopically to obtain a pathological classification in accordance with the (p)TNM. There were no incidental malignancies.

Results

All the 25 patients were No after pathological study. Six patients died during the postoperative pariod (five of them before 1987) and there was no evidence of tumour at necropsy (Mo). The 2- and 5-year actuarial survival of the 19 patients surviving the postoperative period was 62% and 46%, respectively (Fig. 1), and the recurrence rate was 43%. Of these 19 patients, 13 received transplants more than 24 months previously and were therefore a suitable group for the determination of long-term prognosis. The other six patients with a follow-up between 10 and 16 months were alive without recurrence at the time of writing.

Seven of the group of 13 patients died within 14 months (range 3–14) of OLT; all with tumour recurrence (group I). The other six patients lived for more than 24 months, one of whom died without tumour recurrence at 30 months and the others being alive between 25 and 85 months, with a mean of 48 months (group II).

The pT and histopathological grade (G) were similar in both groups. Group I (n = 7): five T4, one T3 and one T2, and five G2 and two G1. Group II (n = 6): five T4 and one T3, and two G3, two G2 and 2 G1.

Discussion

The effort to perform liver transplantation for HCC has generally met with failure. However, occasional patients have had long-term survival and perhaps cure [3, 5, 6]. A

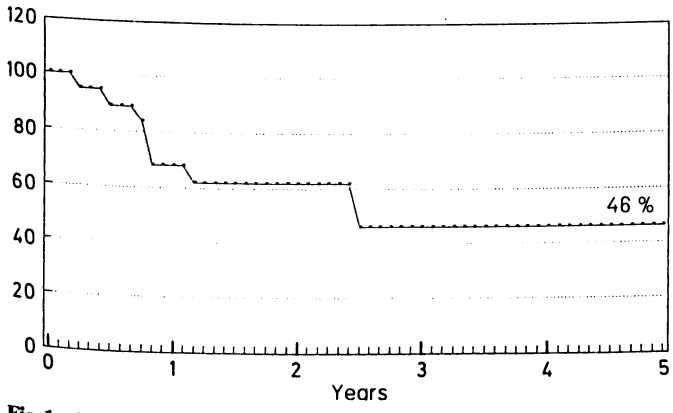

Fig. 1. Actuarial survival curve excluding operative mortality

thorough screening to detect locoregional or distant metastases is necessary. In agreement with Krom et al. [4] and Calne et al. [2], we even perform a laparotomy before liver transplantation to rule out extrahepatic tumour spread. Our pretransplant screening seems to be adequate to select pNo-Mo patients. The recurrence rate was 43%, below that reported by other groups [3, 5]. However, Bismuth et al. [1] have reported a very low recurrence rate (10%), probably due to preoperative chemoembolization and the fact that in their series there were smaller and incidental tumours. In our series, pT was not a significant prognostic factor for long-term survival; more cases may be necessary to obtain conclusive results.

In our experience the HCC No-Mo and 'any T' is a good indication for OLT because almost 50% of these patients were long-term survivors.

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