

Pathophysiology and mode of spread of Intrahepatic Cholangiocarcinoma

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Surgical outcomes in intrahepatic cholangiocarcinoma (ICC) have been reported to be poor. The surgical outcomes were reviewed in patients with ICC. From 1980 to 2005, 211 patients underwent hepatectomy at Tokyo Women's Medical University Hospital. We classified these patients into 4 groups according to the macroscopic findings. 1: mass-forming type (n=100), 2: intraductal growth type (n=17), 3: periductal infiltrating type (n=29), 4: mass-forming plus periductal infiltrating type (n=62). A phase II study of dendritic cell (DC) vaccination/anti-CD3 activated T-cell (CAT) for mass-forming type ICC over 3 cm in diameter was conducted since 2000. Twenty-six patients were enrolled in the study.

The 5-year survival rate was significantly better in the intraductal growth type (72%). However, it was 27% in the mass-forming type and there was no long-term survivor in the mass-forming plus periductal infiltrating type. One hundred seventy eight patients underwent lymph node dissection and were

examined histopathologically. Eighty-nine patients had lymph node metastasis. The surgical outcomes were poor; only one patient survived 5 years after surgery without recurrence. On univariate analysis, jaundice, macroscopic findings, lymph node metastasis, intrahepatic metastasis, tumor size and curative resection were significant prognostic factors. On multivariate analysis, lymph node metastasis ($P<0.0001$), intrahepatic metastasis ($P=0.0035$) and curative resection ($P=0.0002$) were independent significant prognostic factors. In the phase II study of DC/CAT for ICC, 26 patients underwent adoptive immunotherapy and 13 of these had lymph node metastasis. Six of these patients were well 1 year after surgery and three patients were well 2 years after surgery.

Surgical outcomes are poor in patients with ICC and lymph node metastasis even if curative surgery is achieved. Adoptive immunotherapy could be expected to be effective as adjuvant treatment for ICC patients.