AB038. P-06. Tumor-infiltrating CD8+ lymphocytes of as a prognostic factor of intrahepatic cholangiocarcinoma

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Background: Cholangiocarcinoma is the second most common primary liver tumor after hepatocellular carcinoma. However, among all other cancers, cholangiocarcinoma has long been the most common type in people of the northeast of Thailand where accounts for the highest prevalence in the world. Infiltrating CD8+ lymphocytes were found to correlate with a better prognosis in extrahepatic cholangiocarcinoma and have a significant relationship to lower numbers of lymph node metastasis, reduced venous invasion, decreased perineural invasion, and better pTNM staging. So, we aim to study the role of infiltrating CD8+ lymphocytes on patient survival in intrahepatic cholangiocarcinoma hoping to provide a more understanding of its fundamental biologic interaction with the immune system.

Methods: We studied 61 cases of intrahepatic cholangiocarcinoma which were surgically resected during 2010–2014. Tissue microarray (TMA) was performed on paraffin-embedded sections (2 mm in diameter) by selecting four hotspot areas where lymphocytes intensely infiltrated intratumorally as reviewed via H&E slides. Immunohistochemical stain for CD8 lymphocytes was done. The number of CD8+ lymphocytes was entirely numerated on TMA sections and calculated cell density (cells/mm^2). The relationship between the density of CD8+ lymphocytes and overall survival was analyzed by using Kaplan-Meier analysis and log-rank test.

Results: Of 61 cases, 60% were male and the median age of all patients was 61 years old. The median overall survival after resection was 67 weeks. The median survival time of the CD8-high group was 81 weeks (95% CI, 63–153) and the median survival time of the CD8-low group was 38 weeks (95% CI, 22–65). On multivariate analysis, tumor-infiltrating CD8+ lymphocytes were associated with increased overall survival (HR 0.36, 95% CI, 0.18–0.71, P=0.003).

Conclusions: The higher density of tumor-infiltrating CD8+ lymphocytes is a favorable prognostic factor of intrahepatic cholangiocarcinoma.

Keywords: Cholangiocarcinoma; CD8; tumor infiltrating lymphocytes; prognosis

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