



E-003

## Survival Outcome Of Surgical Resection Compared To Non-resection For The Bismuth Type IV Perihilar Cholangiocarcinoma

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**Background** : Bismuth type IV perihilar cholangiocarcinoma has been considered an unresectable disease. The aim of the study was to assess whether the surgical resection of type IV perihilar cholangiocarcinoma was associated with better survival rates.

**Methods** : The data of 117 patients diagnosed with type IV perihilar cholangiocarcinoma at Keimyung University Dongsan Hospital from 2005 to 2020 were retrospectively reviewed. The Bismuth type was assigned based on the patient's radiological imaging findings. The primary outcomes were the surgical results and median overall survival.

**Results** : The demographic characteristics of the 117 patients with type IV perihilar cholangiocarcinoma were comparable between the surgical resection and non-resection groups. Thirty-two (27.4%) patients underwent surgical resections. A left hepatectomy was performed in 16 patients, right hepatectomy in 13 patients, and a central bi-sectionectomy in three patients. The remaining 85 patients received non-surgical treatments. Thirteen (10.9%) received palliative chemotherapy, and 72 (60.5%) patients received conservative treatment including biliary drainage. The patients in the resection group showed significantly longer median overall survival than the patients in the non-resection group (32.4 vs 16.0 months;  $P = 0.002$ ), even though the positive resection margin rate was high (62.5%). Surgical complications occurred in 15 (46.9%) patients. Complications of Clavien-Dindo classification grade III or higher occurred in 13 (40.6%) patients and grade V in two patients (6.3%).

**Conclusions** : Surgical resection for Bismuth type IV perihilar cholangiocarcinoma is technically demanding. The survival of the resection group was significantly better than that of the non-resection group. The resection of selected patients achieved a curative goal with acceptable postoperative morbidity, although the microscopically positive resection margin rate was high.

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