

### **Surgical Outcome of Extra-hepatic Cholangiocarcinoma**

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#### **Abstract**

Extrahepatic cholangiocarcinoma is divided into two compartments, namely perihilar cholangiocarcinoma and distal cholangiocarcinoma. Hemihepatectomy and caudate lobectomy with resection of extrahepatic bile duct is usually performed for patients with perihilar cholangiocarcinoma, whereas pancreaticoduodenectomy is performed for distal cholangiocarcinoma. As pancreaticoduodenectomy has been a well-established and more commonly performed operation, distal cholangiocarcinoma was thought to have better outcomes as compared to perihilar cholangiocarcinoma. However, both cholangiocarcinomas originate from the bile duct epithelium and it is not clear if the malignant potential of perihilar cholangiocarcinoma and distal cholangiocarcinoma are different or not. Therefore, we analyzed 162 perihilar and 98 distal cholangiocarcinoma in our institution from 2002 to 2011, to clarify the actual overall survival, disease-free survival, and prognostic factors. The actual 5-year overall survivals of perihilar and distal cholangiocarcinoma were 39.8 % and 45.2%, respectively, and actual 5-year disease-free survivals were 29.6% and 38.4%, respectively. There are no significant differences in overall survival and disease-free survival between perihilar and distal cholangiocarcinoma. In both cholangiocarcinomas groups independent prognostic factors were distant metastasis, lymph node metastases, perineural invasion, and lack of R0 resection. In conclusion, the oncological outcomes of perihilar and distal cholangiocarcinoma are similar poor long-term outcome for both groups. Effective neoadjuvant and adjuvant therapies must be established to improve patients' prognosis.

**Key word:** distal cholangiocarcinoma, perihilar cholangiocarcinoma, biliary tract cancer, prognostic factor, overall survival