



E-028

## Retrospective Analysis Of Early-recurrence Patterns And Risk Factors After Curative-intent Surgery Of Distal Bile Duct Cancer

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**Background** : Distal cholangiocarcinoma (DCC) is a rare but aggressive malignancy with a poor prognosis. Despite curative-intent surgery, more than 50% of patients experience recurrence within 12 months post-surgery. The need to identify risk factors for early recurrence (ER) is critical to improving patient outcomes.

**Methods** : A retrospective study was conducted on 521 patients who underwent curative-intent surgery for DCC at Seoul National University Hospital between 2008 and 2023. Patients were divided into ER (patients who recur within 12 months, n = 115) and non-ER (patients who recur after 12 months or did not recur, n = 406) groups.

**Results** : For the entire cohort, the median overall survival (OS) was 55.3 months, with a 1-year OS rate of 90.6%, 3-year OS rate of 60.5%, and a 5-year OS rate of 47.2%. The median recurrence-free survival (RFS) was 52.4 months, with a 1-year RFS rate of 76.7%, 3-year RFS rate of 56.3%, and a 5-year RFS rate of 47.5%. There were statistically significant differences between the two groups in perioperative CEA, CA19-9, estimated blood loss (EBL), tumor differentiation, tumor size, lymphatic invasion, venous invasion, perineural invasion, the number of positive lymph nodes, and administration of chemotherapy. Cox-regression analysis identified preoperative CEA (>5 ng/ml, HR 1.70, p=0.044), CA19-9 (>70 U/ml, HR 1.53, p=0.024), BMI ( $\leq 21.0$ , HR 2.09, p=0.003; >25.0, HR 1.75, p=0.011), estimated blood loss (EBL >1000mL, HR 1.80, p=0.010), major vascular invasion (HR 2.81, p=0.004), lymph-node ratio (LNR >15%, HR 2.47, p<0.001), and postoperative CA19-9 (>37 U/ml, HR 1.70, p=0.010) as significant risk factors for ER. The ER group did not show a significant difference in OS compared to the R2/M1 group (1-year OS: 55.5%, 3-year OS: 18.8%, 5-year OS: 16.4%, p = 0.87).

**Conclusions** : Since there was no significant difference in survival outcomes compared to the R2/M1 group, there is a critical need to reassess treatment strategies for patients at high risk of ER. Preoperative CEA, perioperative CA19-9, BMI, major vascular invasion and LNR can be utilized to predict ER.

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