

Comparison Of Prognosis Of Intrapancreatic Vs Extrapancreatic Distal Bile Duct Cancer After Pancreatoduodenectomy

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Background : The difference of prognosis between extrapancreatic distal bile duct cancer (DBCex) and intrapancreatic DBC (DBCin) has not been much studied. This study aimed to compare survival outcomes and prognostic factors according to tumor location in DBC patients.

Methods : A total of 624 DBC patients who underwent pancreatoduodenectomy from 2010 to 2018 in three tertiary centers were enrolled in this retrospective study. We compared overall survival (OS) and disease-free survival (DFS) between DBCin (n=323) and DBCex (n=301) groups and analyzed prognostic factors for OS in each group.

Results : The DBCex group was more associated with large-sized tumor, perineural invasion, R1 resection, and adjuvant therapy than DBCin group, but T stage, Ns stage, and histologic grade was similar. The 5-year OS (55.7% vs 45.9% P=0.018) and DFS (50.5% vs 38.7% P=0.013) were significantly lower in the DBCex group than the DBCin group. On multivariate analysis, DBCex (Hazard Ratio [HR] 1.300, P=0.025) was one of prognostic factors for OS in whole DBC patients. In subgroup analysis, N stage (HR 1.927, P-value <0.001) was an independent prognostic factor for OS in the DBCin group, while intraoperative transfusion (HR 2.040, P<0.001), T stage (HR 1.682, P<0.001), N stage (HR 1.863, P-value <0.001), lymphovascular invasion (HR 1.572, P= 0.004) were independent risk factors in the DBCex group.

Conclusions : DBCex has a higher rate of R1 resection and worse survival outcomes than DBCin, with different prognostic factors. These findings suggest that therapeutic approach including adjuvant treatment should be differentiated according to tumor location in DBC patients.

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