

## Comparison of pancreaticoduodenectomy and bile duct resection for middle bile duct cancer: Japan-Korea collaboration study, biliary part

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**Background:** It is essential to obtain a tumor-free resection margin for bile duct cancer. For this reason, extrahepatic bile duct resection with pancreaticoduodenectomy (PD) is usually performed for middle bile duct cancer. However, R0 resection can be achieved in bile duct segmental resection (BDSR) for localized middle bile duct cancer.

**Aim:** The aim of this study was to clarify whether PD or BDSR was suitable for treatment for middle bile duct cancer.

**Patients and Methods:** This was the collaboration study between Korea and Japan. Data from the patients who underwent PD or BDSR for middle bile duct cancer at 49 institutions between 2001 and 2010 were retrospectively analyzed.

**Results:** A total of 663 patients (364 from Japan, 299 from Korea), including 245 BDSR cases and 418 PD cases, were enrolled. The serious morbidities with Clavien-Dindo grade  $\geq 3$  was significantly higher in PD group than in BDSR group. The mortality rate was almost the same. Recurrence free survival (RFS) and over all survival (OS) were significantly longer in the PD group than BDSR group. Moreover, significantly longer OS were also obtained in stage IA and IB cases, which considered to be the best indication of BDSR, even when R0 resection was achieved. In multivariate analysis,

BDSR was also the independent poor prognostic factor.

Conclusion: Although short-term outcome of BDSR group was better than PD group, the long-term prognosis of BDSR group was obviously poorer than PD group. PD is the standard procedure for middle bile duct cancer and BDSR should be avoided even if R0 resection can be achieved.