

Laparoscopic Distal Pancreatectomy For Pancreatic Ductal Adenocarcinoma: Propensity Score Matched Analysis

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Background : The safety and oncological outcomes of laparoscopic distal pancreatectomy (LDP) for pancreatic ductal adenocarcinoma (PDAC) have already been demonstrated. We reviewed the history of distal pancreatectomy (DP) for PDAC and confirmed the benefit of LDP in the experience of 20 years at single institution.

Methods : A total of 301 patients who underwent DP for PDAC from 1996 to 2020 were retrospectively analyzed. 181 (60.1%) patients underwent open distal pancreatectomy (ODP), 120 (39.9%) patients underwent LDP.

Results : From 1992 to 2020, total 301 patients with PDAC underwent DP in Sinchon Severance Hospital. During study period, total 120 cases of LDP have been performed for PADAC. Chronologically, LDP is gradually increasing over the time ($P<0.0001$). From the ODP group, 120 patients (66.3%) were matched with 120 patients who underwent LDP. When comparing the survival outcomes of ODP ($N=120$) and LDP ($N=120$), there was no difference in median disease free survival (mDFS) (ODP 15.6 months [95%CI: 11.46–19.74] vs. LDP 23.6 months [95% CI: 18.35–28.86], $P = 0.198$). However, LDP performed better in median overall survival (mOS) (ODP 30.8 months [95% CI: 24.73–36.87] vs. LDP 46.6 months [95% CI: 36.28–56.92], $P = 0.039$). Multivariable analysis showed that N1 stage ($HR=1.656$, $P=0.027$), N2 stage ($HR=3.509$, $P<0.0001$), and LDP ($HR=0.694$, $P=0.07$) were independent prognostic factors in resected left-sided PDAC.

Conclusions : Long-term oncologic outcome of LDP for PDAC is comparable with ODP. Further study is mandatory.

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