

P102**New onset diabetes and reduction of pancreatic volume in laparoscopic versus and open pancreaticoduodenectomy****Sung Hoon CHOI***Surgery, Bundang CHA Medical Center, Korea*

Introduction : Atrophy of the remnant pancreas might be a risk factor for new onset diabetes mellitus (DM) after pancreaticoduodenectomy (PD). There was no comparative study of laparoscopic and open PD for differences in change of remnant pancreatic volume and incidence of new onset DM after surgery.

Methods : Fifty-seven patients underwent laparoscopic PD and 43 patients underwent open PD for periampullary pathologies between March 2014 and September 2018 were included. All patients underwent duct-to-mucosa pancreaticojejunostomy for the reconstruction of the remnant pancreas. The perioperative outcomes including the incidence of new onset DM were examined. The pancreatic volume was measured 1 week and 3 months after surgery using computer tomography volumetry.

Results : The mean age, ratio of sex, and mean body mass index of patients were comparable between the two groups. The operative time was comparable (417 ± 83 vs. 392 ± 87 min, $p=0.638$), but the estimated blood loss was lesser in laparoscopic group (402 ± 391 vs. 945 ± 402 ml, $p=0.002$). Postoperative complications greater than grade II were not difference (5 vs. 5 cases, $p=0.659$). Incidence of new onset pancreatogenic DM was not different (7 vs. 6 cases, $p=1.000$). The pancreatic volume reduction rate 3 months after PD was similar in both laparoscopic and open PD (11.1 ± 17.2 vs. 10.1 ± 12.3 ml, $p=0.749$).

Conclusions : This study suggests that the laparoscopic PD with duct-to-mucosa pancreaticojejunostomy was safe and did not deteriorate the atrophic changes of the remnant pancreas and development of new onset DM.

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