

INCIDENCE OF DIABETES MELLITUS AND CONTRIBUTING FACTORS AFTER DISTAL PANCREATECTOMY

Inhyuck LEE¹, Won-Gun YUN¹, Go-Won CHOI¹, Younsoo SEO¹, Yoon Soo CHAE¹, Young Jae CHO¹, Youngmin HAN¹, Hye-Sol JUNG¹, Wooil KWON¹, Joon Seong PARK¹, Jin-Young JANG¹

¹ *Department of Surgery, Seoul National University Hospital, Republic of Korea*

Background : Distal pancreatectomy (DP) increases diabetes mellitus (DM) risk. Identifying DM predictors and understanding glycemic changes are critical for perioperative management. This study investigates clinical factors contributing to DM following DP.

Methods : A retrospective analysis included 251 patients undergoing curative-intent DP at Seoul National University Hospital (2008-2023). Postoperative CT classified transection level as body or tail using the aorta's left border. DM was diagnosed if fasting blood sugar (FBS), postprandial glucose (PP2), or HbA1c met diagnostic criteria at 1-year follow-up. AUROC-derived cut-offs categorized continuous variables, and logistic regression identified DM predictors.

Results : Among 251 patients, 104 underwent tail resection, and 147 body resection. DM incidence was higher in the body group (62%) than the tail group (38%) ($p < 0.001$). Univariate analysis identified predictors: age > 53 (OR: 18.6; $p < 0.001$), preoperative hypertension (OR: 5.79; $p = 0.020$), ASA \geq II (OR: 4.97; $p = 0.001$), HbA1c $\geq 6.0\%$ (OR: 14.1; $p = 0.010$), FBS ≥ 100 mg/dl (OR: 4.09; $p = 0.007$), PP2 ≥ 160 mg/dl (OR: 18.3; $p = 0.005$), pancreatic ductal adenocarcinoma (OR: 8.15; $p = 0.042$), transection on tail level (OR: 0.13; $p < 0.001$), and adjuvant chemotherapy (OR: 8.32; $p = 0.040$). Multivariate analysis confirmed age > 53 (OR: 12.7; $p = 0.02$) and distal transection (OR: 0.25; $p = 0.042$) as independent predictors.

Conclusions : Age and transection level are key predictors of DM after DP. Early identification of high-risk patients and tailored counseling are essential to prevent DM. These findings emphasize proactive management in clinical practice.

Corresponding Author : Jin-Young JANG (jangjy4@snu.ac.kr)