

## **Postoperative Movement of an Internal Stent Placed at the Anastomotic Site of Pancreaticojejunostomy During Pancreaticoduodenectomy**

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### **ABSTRACT**

**Purposes:** This study aimed to investigate the postoperative movement of an internal stent placed at the anastomotic site of pancreaticojejunostomy during pancreaticoduodenectomy.

**Methods:** Of the 70 patients who underwent pancreaticoduodenectomy using an internal stent at the anastomotic site of pancreaticojejunostomy between January 2014 and December 2019, 64 patients (91%) were included in this study. Stent fall from the anastomotic site, stent excretion from the body, and stent migration into the pancreatic and bile duct, as well as stent-related complications were examined.

**Results:** The stent fall rate and excretion rate were 91% and 83%, respectively. Furthermore, migration rates into the pancreatic duct and bile duct were 5% each. There were no stent-related complications. Univariate analysis revealed that pancreatic texture and Clavien-Dindo classification differed significantly according to stent fall time ( $p=0.019$ ,  $0.045$ , respectively). Moreover, the Clavien-Dindo classification differed significantly according to the number of stent excretions ( $p=0.023$ ). Additionally, patient sex, Clavien-Dindo classification, postoperative pancreatic fistula, and preoperative biliary drainage differed significantly according to stent excretion time ( $p=0.014$ ,  $0.026$ ,  $0.024$ ,  $0.044$ , respectively). Multivariate analysis revealed that postoperative pancreatic fistula was an independent risk factor for excretion time ( $p=0.047$ ; HR 0.513, 95%CI; 0.266-0.992).

**Conclusions:** We observed the safe removal and excretion of internal stents from patients who underwent pancreaticoduodenectomy. Additionally, patients with postoperative pancreatic fistula had significantly later stent excretion time.

**Key words:** internal stent, pancreaticoduodenectomy, pancreaticojejunostomy