

## Efficacy of pancreatic stent placement after an unintentional pancreatic guidewire insertion

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**Background/Aims:** Post-endoscopic retrograde cholangiopancreatography (ERCP) pancreatitis is a clinical challenge. We evaluated the prophylactic efficacy of endoscopic retrograde pancreatic drainage (ERPD) stent placement for post-ERCP pancreatitis (PEP) in patients with inadvertent pancreatic duct(PD) guide-wire insertion.

**Methods:** We retrospectively analyzed prospectively collected single center registry data between October 2015 and July 2019. Inclusion criteria were as follows: adult non-pregnant patient, naïve papilla and unintentional PD guidewire insertion. We excluded patients with chronic pancreatitis, pancreatobiliary anomalies, previous ERCP, history of acute pancreatitis, procedural risk factors for PEP other than unintentional PD guidewire insertion including PD contrast injection, mechanical lithotripsy, endoscopic papillary large balloon dilatation. Included patients were divided into two groups according to whether ERPD was placed. PEP was defined as elevation of pancreatic enzymes (serum amylase or lipase) and development or aggravation of abdominal pain after ERCP.

**Results:** Total of 212 patients were included for the analyses (ERPD group:133/No ERPD group: 99). There was no statistical difference between groups in baseline characteristics (Table1). PEP was developed in 9 (4.2%) patients. All PEP patients were classified as mild according to the revised Atlanta classification and were successfully treated with conservative management only. The incidence of PEP was lower in patients with prophylactic ERPD stent placement (0.9% VS 8.1%, P= 0.013). The odd's ratio was 0.10 with confidence interval of 0.01 to 0.83 indicating that ERPD placement has a prophylactic effect for PEP in patients with inadvertent PD guidewire insertion.

**Conclusions:** In patients with inadvertent PD guidewire insertion, ERPD stent placement should be considered even if contrast is not injected into the pancreatic duct.

Table 1. Baseline Characteristics and Clinical Outcome

	Total (n=212)	ERPD (n=113)	No ERPD (n=99)	P value
Sex, female (%)	108 (50.9)	60 (53.1)	48 (48.5)	0.582
Age, mean (SD)	64.3 (15.9)	64.9 (16.0)	63.7 (15.8)	0.574
BMI, mean (SD)	23.7 (4.3)	23.6 (4.0)	23.8 (4.6)	0.738
DM, n (%)	68 (32.1)	39 (34.5)	29 (29.3)	0.677
HTN, n (%)	92 (43.4)	51 (45.1)	41 (41.4)	0.677
CKD, n (%)	4 (1.9)	3 (2.7)	1 (1.0)	0.625
ERCP indication				0.223
Bile duct stones	150 (70.8)	74 (65.5)	76 (76.8)	
Malignant stricture	43 (20.3)	28 (24.8)	15 (15.2)	
Benign stricture	14 (6.6)	9 (8.0)	5 (5.1)	
Other	5 (2.4)	2 (1.8)	3 (3.0)	
CBD dilatation (>7mm), n (%)	135 (63.7)	69 (61.1)	66 (66.7)	0.474
Laboratory result, mean (SD)				
WBC (10 <sup>3</sup> /mm <sup>3</sup> )	7.9 (4.5)	7.6 (4.1)	8.3 (4.8)	0.228
Total bilirubin (mg/dL)	3.1 (4.3)	2.7 (3.8)	3.4 (4.7)	0.203
hsCRP (mg/dL)	4.8 (6.6)	4.7 (6.6)	4.8 (6.7)	0.980