

**Supplementary Table 1.** Univariable and multivariable regression analyses for predictors of clinically relevant POPF among patients who had POPF following their pancreatoduodenectomy

Characteristic	Univariable analysis		Multivariable analysis	
	HR (95% CI)	p-value	HR (95% CI)	p-value
Age	1.02 (0.99–1.04)	0.449		
Sex				
Male	Reference		Reference	
Female	0.81 (0.68–0.94)	0.020*	0.88 (0.75–0.99)	0.038*
Race				
White	Reference			
Black	1.10 (0.81–1.48)	0.545		
Others	1.29 (0.70–1.85)	0.428		
BMI	1.01 (0.99–1.02)	0.794		
Comorbidity				
Hypertension	1.09 (0.94–1.26)	0.253		
Diabetes mellitus	0.98 (0.81–1.18)	0.852		
COPD	0.85 (0.60–1.20)	0.369		
CHF	2.24 (0.57–8.75)	0.248		
ESRD	1.17 (0.25–5.39)	0.838		
Risk factors				
Smoking, active	0.94 (0.76–1.15)	0.547		
Steroids	0.98 (0.66–1.48)	0.941		
Weight loss	0.88 (0.53–1.48)	0.650		
Bleeding disorder	0.82 (0.64–1.04)	0.111		
Biliary stent	1.02 (0.89–1.18)	0.717		
Indication				
Malignancy	Reference			
Benign	1.23 (1.12–1.41)	0.019*	1.10 (1.04–1.30)	0.040*
Unknown	0.49 (0.19–1.21)	0.232	0.38 (0.11–1.30)	0.122
Neoadjuvant therapy				
Chemotherapy	1.25 (1.01–1.56)	0.040*	1.24 (1.08–1.56)	0.034*
Radiation	1.10 (0.74–1.62)	0.621		
Approach				
OPD	Reference		Reference	
MIPD	1.30 (1.15–1.62)	0.011*	1.27 (1.06–1.67)	0.023*
Duct size (mm)				
<3	Reference			
3–6	1.06 (0.92–1.24)	0.378		
>6	0.97 (0.73–1.29)	0.846		
Gland texture				
Soft	Reference		Reference	
Intermediate	1.34 (1.05–1.72)	0.019*	1.22 (0.92–1.89)	0.102
Firm	1.05 (0.87–1.26)	0.613	1.03 (0.80–1.46)	0.723

Supplementary Table 1. Continued

Characteristic	Univariable analysis		Multivariable analysis	
	HR (95% CI)	<i>p</i> -value	HR (95% CI)	<i>p</i> -value
Reconstruction type				
PJ duct-to-mucosa	Reference		Reference	
PJ invagination	1.42 (1.15–1.66)	0.025*	1.31 (1.01–1.69)	0.039*
PG	0.86 (0.57–1.29)	0.476	0.90 (0.60–1.37)	0.633
Operative time	1.01 (1.00–1.02)	0.003*	1.00 (1.00–1.00)	0.002*
Drain	0.14 (0.08–0.22)	<0.001*	0.14 (0.08–0.23)	<0.001*

POPF, postoperative pancreatic fistula; HR, hazard ratio; CI, confidence interval; BMI, body mass index; COPD, chronic pulmonary obstructive disease; CHF, congestive heart failure; ESRD, end stage renal disease; OPD, open pancreatoduodenectomy; MIPD, minimally invasive pancreatoduodenectomy; PJ, pancreaticojejunostomy; PG, pancreaticogastrostomy.

\**p* < 0.05, statistically significant.