

**Supplementary table 1. Univariable and multivariable analyses of total postoperative complication rate after backward elimination by forcing the inclusion of clinically relevant POAP**

Variable	Univariable		Multivariable	
	Odds ratio (95% confidence interval)	P value	Odds ratio (95% confidence interval)	P value
Clinically relevant POAP	0.888 (0.520-1.516)	0.662	0.897 (0.517-1.555)	0.697
Age	1.015 (0.988-1.044)	0.280		
Sex	0.867 (0.518-1.453)	0.589		
BMI	0.954 (0.877-1.036)	0.264		
ASA score (Ref: I)		0.151		0.141
II	1.383 (0.617-3.159)	0.432	1.440 (0.637-3.318)	0.382
III	3.125 (0.959-11.130)	0.066	3.238 (0.988-11.597)	0.059
Preoperative CEA	1.001 (1.000-1.002)	0.163		
Preoperative CA19-9	0.999 (0.262-3.820)	0.998		
Preoperative biliary / pancreatic drainage	0.883 (0.532-1.460)	0.627	0.871 (0.518-1.462)	0.602
Preoperative cholangitis	0.891 (0.480-1.657)	0.715		
ERAS group	0.907 (0.549-1.497)	0.701		
Preoperative pancreatic duct size	0.982 (0.866-1.112)	0.771		
Pancreatic texture	0.806 (0.468-1.382)	0.435		
Pancreaticojejunostomy method	1.358 (0.591-3.246)	0.477		
Tumor location (Ref: Pancreas)		0.718		
Ampulla of Vater	0.686 (0.332-1.400)	0.302		
Distal common bile duct	1.034 (0.570-1.884)	0.913		
Duodenum	1.118 (0.367-3.572)	0.845		
Cancer	1.001 (0.560-1.783)	0.996		
Resection margin status	1.484 (0.601-3.881)	0.400		

**Supplementary table 2. Univariable and multivariable analyses of severe complications (Clavien-Dindo  $\geq$  IIIa) rate after backward elimination by forcing the inclusion of clinically relevant POAP**

Variable	Univariable		Multivariable	
	Odds ratio (95% confidence interval)	P value	Odds ratio (95% confidence interval)	P value
Clinically relevant POAP	0.788 (0.295-1.899)	0.611	0.854 (0.306-2.182)	0.750
Age	1.034 (0.987-1.089)	0.178		
Sex	0.477 (0.168-1.179)	0.130	0.331 (0.104-0.939)	0.046
BMI	1.003 (0.872-1.146)	0.971		
ASA score (Ref: I)		0.044		
II	NA*	0.989		
III	NA*	0.990		
Preoperative CEA	1.000 (0.998-1.002)	0.866		
Preoperative CA19-9	0.661 (0.066-5.778)	0.717	0.205 (0.013-2.757)	0.242
Preoperative biliary / pancreatic drainage	0.735 (0.317-1.692)	0.467	0.601 (0.242-1.456)	0.261
Preoperative cholangitis	0.705 (0.199-1.962)	0.540		
ERAS group	1.569 (0.683-3.752)	0.294		
Preoperative pancreatic duct size	1.018 (0.805-1.208)	0.856		
Pancreaticojunostomy method	1.233 (0.277-3.940)	0.749		
Pancreatic texture	0.811 (0.343-2.013)	0.637		
Tumor location (Ref: Pancreas)		0.570		
Ampulla of Vater	0.385 (0.059-1.453)	0.220		
Distal common bile duct	0.856 (0.312-2.148)	0.748		
Duodenum	0.564 (0.030-3.160)	0.594		
Cancer	1.390 (0.534-4.330)	0.529		
Resection margin status	3.125 (0.945-8.976)	0.043	3.507 (1.020-10.742)	0.033

\* The results could not be calculated due to the existence of zero cells.

**Supplementary table 3. Univariable and multivariable analyses of CR-POPF rate after backward elimination by forcing the inclusion of clinically relevant POAP**

Variable	Univariable		Multivariable	
	Odds ratio (95% confidence interval)	P value	Odds ratio (95% confidence interval)	P value
Clinically relevant POAP	0.785 (0.244-2.165)	0.656	0.758 (0.216-2.364)	0.644
Age	1.064 (1.003-1.137)	0.051	1.072 (1.006-1.152)	0.043
Sex	0.301 (0.068-0.944)	0.063	0.268 (0.058-0.905)	0.053
BMI	1.017 (0.866-1.186)	0.838		
ASA score (Ref: I)		0.110		
II	NA*	0.990		
III	NA*	0.990		
Preoperative CEA	1.002 (1.000-1.003)	0.016		
Preoperative CA19-9	4.822 (0.414-48.984)	0.192		
Preoperative biliary / pancreatic drainage	3.095 (1.073-11.175)	0.052		
Preoperative cholangitis	0.750 (0.169-2.388)	0.660	0.384 (0.078-1.367)	0.178
ERAS group	0.359 (0.112-0.985)	0.059	0.364 (0.106-1.082)	0.082
Preoperative pancreatic duct size	0.832 (0.555-1.099)	0.298		
Pancreaticojejunostomy method	1.114 (0.169-4.260)	0.890		
Pancreatic texture	0.993 (0.370-2.949)	0.990		
Tumor location (Ref: Pancreas)		0.011		
Ampulla of Vater	1.263 (0.176-6.125)	0.785		
Distal common bile duct	4.714 (1.633-15.56)	0.006		
Duodenum	NA*	0.989		
Cancer	1.746 (0.552-7.726)	0.392		
Resection margin status	3.462 (0.906-10.956)	0.045	2.995 (0.704-11.121)	0.111

\* The results could not be calculated due to the existence of zero cells.

**Supplementary table 4. Univariable and multivariable analyses of total postoperative complication rate after backward elimination by forcing the inclusion of clinically relevant POAP after excluding patients with high preoperative amylase levels**

Variable	Univariable		Multivariable	
	Odds ratio (95% confidence interval)	P value	Odds ratio (95% confidence interval)	P value
Clinically relevant POAP	0.595 (0.504-1.481)	0.595	0.875 (0.502-1.523)	0.653
Age	1.016 (0.988-1.044)	0.275		
Sex	0.847 (0.504-1.423)	0.531		
BMI	0.961 (0.884-1.044)	0.352		
ASA score (Ref: I)		0.149		0.138
II	1.371 (0.611-3.134)	0.445	1.434 (0.634-3.308)	0.388
III	3.125 (0.959-11.130)	0.066	3.254 (0.993-11.657)	0.058
Preoperative CEA	1.001 (1.000-1.002)	0.200		
Preoperative CA19-9	1.015 (0.265-3.897)	0.983		
Preoperative biliary / pancreatic drainage	0.871 (0.524-1.444)	0.593	0.863 (0.511-1.451)	0.578
Preoperative cholangitis	0.899 (0.483-1.672)	0.735		
ERAS group	0.890 (0.537-1.473)	0.650		
Preoperative pancreatic duct size	0.982 (0.866-1.112)	0.768		
Pancreatic texture	0.818 (0.471-1.411)	0.472		
Pancreaticojejunostomy method	1.266 (0.543-3.054)	0.588		
Tumor location (Ref: Pancreas)		0.731		
Ampulla of Vater	0.684 (0.331-1.398)	0.299		
Distal common bile duct	1.003 (0.550-1.834)	0.992		
Duodenum	1.114 (0.366-3.565)	0.849		
Cancer	0.993 (0.555-1.769)	0.980		
Resection margin status	1.579 (0.611-4.383)	0.356		

**Supplementary table 5. Univariable and multivariable analyses of severe complications (Clavien-Dindo  $\geq$  IIIa) after backward elimination by forcing the inclusion of clinically relevant POAP after excluding patients with high preoperative amylase levels**

Variable	Univariable		Multivariable	
	Odds ratio (95% Confidence interval)	P value	Odds ratio (95% Confidence interval)	P value
Clinically relevant POAP	0.789 (0.295-1.900)	0.612	0.819 (0.295-2.067)	0.684
Age	1.034 (0.987-1.089)	0.180	1.036 (0.985-1.096)	0.187
Sex	0.475 (0.168-1.175)	0.128	0.419 (0.144-1.058)	0.081
BMI	1.002 (0.872-1.146)	0.974		
ASA score (Ref: I)		0.042		
II	NA*	0.989		
III	NA*	0.990		
Preoperative CEA	1.000 (0.998-1.002)	0.822		
Preoperative CA19-9	0.655 (0.066-5.703)	0.710		
Preoperative biliary / pancreatic drainage	0.754 (0.325-1.735)	0.504	0.594 (0.238-1.447)	0.253
Preoperative cholangitis	0.693 (0.195-1.929)	0.520		
ERAS group	1.556 (0.677-3.722)	0.304		
Preoperative pancreatic duct size	1.017 (0.805-1.207)	0.862		
Pancreatojejunostomy method	0.776 (0.328-1.930)	0.571		
Pancreatic texture	1.279 (0.286-4.104)	0.708		
Tumor location (Ref: Pancreas)		0.552		
Ampulla of Vater	0.379 (0.058-1.427)	0.211		
Distal common bile duct	0.854 (0.311-2.147)	0.746		
Duodenum	0.554 (0.029-3.103)	0.582		
Cancer	1.416 (0.544-4.411)	0.506		
Resection margin status	3.554 (1.062-10.413)	0.026	3.999 (1.144-12.558)	0.021

\* The results could not be calculated due to the existence of zero cells.

**Supplementary table 6. Univariable and multivariable analyses of CR-POPF after backward elimination by forcing the inclusion of clinically relevant POAP after excluding patients with high preoperative amylase levels**

Variable	Univariable		Multivariable	
	Odds ratio (95% confidence interval)	P value	Odds ratio (95% confidence interval)	P value
Clinically relevant POAP	0.785 (0.244-2.167)	0.657	0.667 (0.184-2.135)	0.510
Age	1.064 (1.003-1.137)	0.051	1.082 (1.010-1.170)	0.035
Sex	0.300 (0.068-0.941)	0.063	0.198 (0.040-0.710)	0.023
BMI	1.016 (0.865-1.186)	0.839	1.171 (0.961-1.432)	0.116
ASA score (Ref: I)		0.108		
II	NA*	0.990		
III	NA*	0.990		
Preoperative CEA	1.002 (1.000-1.003)	0.014		
Preoperative CA19-9	4.744 (0.409-48.042)	0.195		
Preoperative biliary / pancreatic drainage	3.174 (1.099-11.462)	0.047		
Preoperative cholangitis	0.738 (0.166-2.349)	0.641	0.317 (0.060-1.191)	0.123
ERAS group	0.355 (0.111-0.976)	0.056	0.309 (0.083-0.967)	0.056
Preoperative pancreatic duct size	0.833 (0.557-1.099)	0.298		
Pancreaticojejunostomy method	0.953 (0.355-2.832)	0.926		
Pancreatic texture	1.153 (0.175-4.425)	0.855		
Tumor location (Ref: Pancreas)		0.011		
Ampulla of Vater	1.242 (0.173-6.024)	0.800		
Distal common bile duct	4.720 (1.633-15.590)	0.006		
Duodenum	NA*	0.989		
Cancer	1.777 (0.562-7.867)	0.377		
Resection margin status	3.905 (1.013-12.553)	0.030	4.821 (1.044-20.618)	0.034

\* The results could not be calculated due to the existence of zero cells.