

Table S1 Risk factors associated with postoperative complications after pancreaticoduodenectomy for ampullary carcinoma

Factors	Postoperative complications			Multivariate analysis		
	Yes (n=160)	No (n=244)	P	OR	95% CI	P
Age >65 years	31 (19.4)	40 (16.4)	0.441			
Sex (male)	87 (54.4)	141 (57.8)	0.499			
Co-morbidities	38 (23.8)	57 (23.4)	0.928			
Smoking history	39 (24.4)	36 (14.8)	0.015	2.500	1.401–4.464	0.002
Jaundice	110 (68.8)	144 (59.0)	0.048			
BMI>25 kg/m ²	24 (15.0)	24 (9.8)	0.117	1.892	1.001–3.577	0.049
ASA class III	12 (7.5)	27 (11.1)	0.235			
CA19-9 >37 U/mL	102 (63.7)	130 (53.3)	0.037			
CA125 >35 U/mL	20 (12.5)	24 (9.8)	0.401			
NPS (grade 2)	60 (37.5)	64 (26.2)	0.016	1.692	1.086–2.636	0.02
Preoperative biliary drainage	60 (37.5)	88 (36.1)	0.770			
Operative time >283 minutes	82 (51.2)	140 (57.4)	0.226			
Estimated blood loss >200 mL	100 (62.5)	173 (70.9)	0.078			
Transfusion	82 (51.2)	103 (42.2)	0.075			
Surgical procedure (LPD)	49 (30.6)	111 (45.5)	0.003	0.556	0.360–0.857	0.008
Vascular invasion	17 (10.6)	16 (6.6)	0.144			
TNM stage III	46 (28.7)	66 (27.0)	0.709			
Soft pancreas	91 (56.9)	140 (57.4)	0.921			
The main pancreatic duct<3 mm	32 (20.0)	51 (20.9)	0.826			
Tumor size >2 cm	61 (38.1)	90 (36.9)	0.801			

Variables were expressed as n (%). BMI, body mass index; ASA, American Socwiety of Anesthesiologists; CA19-9, carbohydrate antigen 19-9; CA125, carbohydrate antigen 125; NPS, Naples prognostic score; LPD, laparoscopic pancreatoduodenectomy.

Table S2 Analysis of the predictive accuracy of the different score systems on overall survival and recurrence-free survival by the time-dependent ROC

Prognostic model	AUC (95% CI)				
	1-year	2-year	3-year	4-year	5-year
Overall survival					
NPS	0.688 (0.617–0.759)	0.739 (0.685–0.792)	0.730 (0.671–0.789)	0.718 (0.655–0.782)	0.673 (0.599–0.748)
CONUT	0.661 (0.589–0.736)	0.672 (0.612–0.731)	0.645 (0.581–0.708)	0.634 (0.565–0.702)	0.573 (0.492–0.653)
SIS	0.585 (0.516–0.654)	0.625 (0.570–0.680)	0.623 (0.563–0.682)	0.605 (0.539–0.671)	0.565 (0.487–0.643)
PNI	0.584 (0.506–0.663)	0.630 (0.569–0.691)	0.600 (0.535–0.665)	0.582 (0.513–0.650)	0.538 (0.461–0.615)
NRI	0.514 (0.438–0.590)	0.559 (0.499–0.610)	0.533 (0.471–0.596)	0.522 (0.455–0.589)	0.492 (0.416–0.568)
TNM stage	0.626 (0.555–0.697)	0.661 (0.602–0.719)	0.690 (0.632–0.749)	0.689 (0.627–0.752)	0.695 (0.625–0.765)
Recurrence-free survival					
NPS	0.705 (0.638–0.671)	0.722 (0.664–0.780)	0.702 (0.641–0.764)	0.660 (0.591–0.729)	0.638 (0.562–0.714)
CONUT	0.647 (0.577–0.717)	0.677 (0.617–0.738)	0.628 (0.562–0.693)	0.581 (0.508–0.654)	0.541 (0.458–0.623)
SIS	0.612 (0.547–0.677)	0.630 (0.573–0.688)	0.627 (0.566–0.687)	0.583 (0.513–0.652)	0.551 (0.471–0.632)
PNI	0.614 (0.538–0.690)	0.629 (0.563–0.695)	0.603 (0.538–0.669)	0.558 (0.487–0.629)	0.500 (0.421–0.578)
NRI	0.539 (0.469–0.609)	0.580 (0.519–0.641)	0.551 (0.488–0.615)	0.525 (0.455–0.594)	0.501 (0.422–0.579)
TNM stage	0.604 (0.535–0.673)	0.623 (0.562–0.684)	0.643 (0.616–0.671)	0.659 (0.593–0.724)	0.655 (0.580–0.729)

ROC, receiver operating characteristic; AUC, area under the curve; NPS, Naples prognostic score; SIS, systemic inflammation score; CONUT, controlling nutritional status; PNI, prognostic nutritional index; NRI, nutritional risk index.