

Supplementary Table S1 Long-term survival estimates

Long-term survival estimates										
			Univariate				Multivariate			
Parameter	median OS	deaths n	HR	95%CI (lower, upper)		p-value	HR	95%CI (lower, upper)		p-value
Age										
< 68	30	26								
> 68	22	34	1.463	0.872	2.455	0.149				
Sex										
male	24	34								
female	26	26	0.816	0.487	1.367	0.440				
BMI (kg/m2)										
< 30	26	50								
> 30	26	10	0.975	0.493	1.928	0.943				
ASA Score										
0-2	31	27								
3-4	22	33	1.706	1.014	2.869	0.044	0.628	0.269	1.466	0.282
Serum CA 19-9										
<40 U/l	22	20								
>40 U/l	25	30	0.946	0.410	2.179	0.895				
Borderline ISGPS 2014 Definition										
BR-	30	30								
BR+	19	30	1.771	1.056	2.969	0.030	0.649	0.290	1.453	0.293
Borderline IAP 2017 Definition										
BR-	40	11								
BR+	20	49	2.808	1.443	5.465	0.002	2.993	0.895	3.007	0.075
Any SMPV alterations										
no	31	29								
yes	18	31	1.895	1.122	3.200	0.017	1.178	0.448	3.100	0.740
SMA stranding										
no	30	34								
yes	13	26	2.618	1.520	4.510	<0.001	3.066	1.078	5.716	0.036
SMA minimal distance										
< 4mm	24	36								
> 4mm	29	23	0.765	0.452	1.294	0.317				
Borderline novel definition										
BR-	29	42								
BR+	13	18	2.272	1.263	4.088	0.006	0.671	0.212	2.216	0.498
PVR										
no	31	33								
yes	18	27	1.941	1.158	3.254	0.012	1.294	0.714	2.346	0.395
Multivisceral resection										
no	27	53								

yes	21	7	1.373	0.621	3.035	0.434				
T stage										
T1/2	28	11								
T3/4	25	49	1.281	0.664	2.471	0.460				
N stage										
N0	33	19								
N+	20	41	2.004	1.107	3.629	0.022	1.424	0.702	2.889	0.327
M										
M0	26	56								
M1	23	4	1.164	0.420	3.228	0.771				
LNR										
< median 0.08	28	34								
> median 0.08	21	26	1.229	0.724	2.087	0.446				
Grading										
G 1/2	28	44								
G 3/4	23	12	1.153	0.605	2.196	0.665				
Lymphovascular invasion										
L0	31	34								
L1	17	26	2.291	1.340	3.915	0.002	1.322	0.705	2.479	0.384
Vascular invasion										
V0	30	40								
V1	14	20	2.584	1.472	4.534	0.001	2.375	1.201	4.700	0.013
Perineural invasion										
Pn0	40	8								
Pn1	22	51	2.398	1.127	5.101	0.023	1.259	0.547	2.896	0.588
UICC/AJCC R status										
R 0	30	33								
R +	18	27	1.909	1.127	3.232	0.016	0.769	0.366	1.163	1.613
Leeds/Wittekind R status										
R0 wide	34	15								
R0 narrow/R1	21	45	1.937	1.029	3.648	0.041	1.132	0.525	2.440	0.752
Adjuvant therapy										
no	23	33								
yes	30	27	0.615	0.368	1.025	0.062				

SMA: superior mesenteric artery; BMI: body mass index; ASA score: American Society of anesthesiologists score; CA19-9: carbohydrate antigen 19-9; ISGPS: International Study Group of Pancreatic Surgery; IAP: International Association of Pancreatology; SMPV: superior mesenterico-portal vein; PVR: portal vein resection; LNR: lymph node ratio