

**Table S1** Short-term outcomes after left and right hepatectomy and trisectionectomy for suspected PHC

Outcome	Left hepatectomy (n=68)	Left trisectionectomy (n=8)	Right hepatectomy (n=49)	Right trisectionectomy (n=53)	P value
Hospital stay, median [IQR]	13 [9–21]	18 [12–29]	11 [8–20]	14 [10–26]	0.201
Overall morbidity, n [%]	56 [82]	7 [88]	37 [76]	37 [70]	0.361
Severe morbidity, n [%], (CD grade $\geq$ 3)	34 [50]	7 [88]	32 [65]	30 [57]	0.124
90-day mortality, n [%]	6 [9]	2 [25]	7 [14]	9 [17]	0.430
Posthepatectomy liver failure (ISGLS B or C), n [%]	6 [9]	2 [25]	9 [18]	13 [25]	0.121
Posthepatectomy haemorrhage (ISGLS B or C), n [%]	4 [6]	1 [13]	4 [8]	5 [9]	0.851
Bile leakage (ISGLS B or C), n [%]	20 [29]	6 [75]	18 [37]	13 [25]	0.031
HJ-leakage, n	13	3	7	10	0.450
R0 resections (only pathology proven PHC), n [%]	39/51 [77]	2/5 [40]	21/32 [66]	30/42 [71]	0.320

ISGLS, International Study Group of Liver Surgery (ISGLS); PHC, perihilar cholangiocarcinoma.

**Table S2** Univariate and multivariate Cox regression analysis

Variable	Univariate analysis			Multivariate analysis		
	HR	95% CI	P	HR	95% CI	P
Age >65	0.881	0.550–1.412	0.599			
ASA $\geq$ 3	1.886	1.032–3.445	0.039	1.910	1.001–3.645	0.050
Bismuth-Corlette type IV	1.119	0.625–2.005	0.705			
Right-sided resection	1.148	0.724–1.819	0.558	1.236	0.776–1.969	0.372
Extended resection	0.950	0.581–1.553	0.838			
ECOG performance state 2 or 3	1.307	0.565–3.026	0.531			
Biliary drainage						
None	Ref	–	0.459			
Endoscopic	0.703	0.337–1.466	0.348			
Percutaneously	0.754	0.450–1.262	0.283			
Both	0.477	0.166–1.373	0.170			
Preoperative cholangitis	1.586	0.993–2.532	0.053	1.357	0.826–2.228	0.228
Portal vein reconstruction	1.077	0.732–1.584	0.707	1.130	0.744–1.716	0.566
Perineural growth	1.245	0.496–3.126	0.641			
Vasoinvasiveness	1.556	0.798–3.037	0.195	*		
Poor differentiation	0.959	0.550–1.669	0.881			
Stage III or IV	1.416	0.892–2.249	0.140	1.356	0.836–2.198	0.217
R1 resection	1.076	0.675–1.715	0.757			

\*, not included in multivariate analysis due to high number of missing values. ASA, American Society of Anaesthesiologists.

**Table S3** Baseline characteristics and short-term outcomes for patients with and without concomitant portal vein reconstruction for suspected PHC

Variable	No PVR [n=136]	PVR [n=42]	P value
Female, n [%]	55 [60]	14 [33]	0.409
Age, mean [SD]	63 [11]	62 [9]	0.458
ASA, n [%]			0.490
I	26 [19]	8 [19]	
II	87 [64]	30 [71]	
III	23 [17]	4 [10]	
ECOG performance state, n [%]			0.125
0	99 [73]	23 [55]	
1	27 [20]	15 [36]	
2	9 [7]	3 [7]	
3	1 [1]	1 [2]	
Tumor diameter, median [IQR]	27 [20–40]	33 [25–45]	0.032
Bismuth-Corlette type, n [%]	N=134	N=42	
I	1 [1]	0	0.574
II	3 [2]	0	0.328
IIIa	70 [52]	24 [57]	0.578
IIIb	41 [31]	8 [19]	0.145
IV	19 [14]	10 [24]	0.142
Drainage method, n [%]			0.031
None	26 [19]	3 [7]	0.066
Endoscopic	67 [49]	17 [41]	
Percutaneously	11 [8]	4 [10]	
Both	31 [23]	18 [43]	
Preoperative cholangitis, n [%]	50 [37]	17 [41]	0.664
Portal vein embolization, n [%]	17 [13]	7 [17]	0.490
Extended resection, n [%]	38 [28]	23 [55]	0.001
Final pathology, n [%]			<0.001
PHC	107 [79]	42 [100]	
Other	29 [21]	0	
Hospital stay, median [IQR]	13 [8–21]	13 [10–26]	0.943
Overall morbidity, n [%]	101 [74]	36 [86]	0.123
Severe morbidity (CD grade $\geq 3$ ), n [%]	78 [57]	25 [59]	0.803
90-day mortality, n [%]	16 [12]	8 [19]	0.227
Posthepatectomy liver failure (ISGLS B or C), n [%]	17 [13]	13 [31]	0.005
Posthepatectomy haemorrhage (ISGLS B or C), n [%]	7 [5]	7 [17]	0.015
Bile leakage (ISGLS B or C), n [%]	44 [32]	13 [31]	0.865
HJ-leakage	26 [19]	6 [14]	0.655

PHC, perihilar cholangiocarcinoma; VR, portal vein resection; ISGLS, International Study Group of Liver Surgery (ISGLS); ASA, American Society of Anaesthesiologists.