

Table S1 Univariate and multivariate analysis for bile leakage

Variable	Univariate			Multivariate		
	No-bile leakage (n=136)	Bile leakage (n=35)	P	OR	95% CI	P
Age, median (Q1, Q3), year	60 (52-65)	59 (54-63)	0.282			
Gender, n (%)			0.058			
Male	73 (53.7)	25 (71.4)				
Female	63 (46.3)	10 (28.6)				
BMI, mean ± SD	22±2.52	22.18±2.42	0.706			
Cholangitis, n (%)	17 (12.5)	15 (42.9)	<0.001	5.25	2.265-12.167	<0.001
Preoperative bilirubin, median (Q1, Q3)	177.3 (103.5-258.05)	181.5 (152.9-297.5)	0.123			
Preoperative albumin protein, median (Q1, Q3)	37.25 (35.1-39.58)	35.7 (32.2-39.2)	0.112			
FLR, median (Q1, Q3)	65 (48-73)	64 (48-70)	0.904			
LRF, median (Q1, Q3)	0 (0-0.03)	0 (0-0.02)	0.751			
CDEJ, median (Q1, Q3)	2,301.53 (1,310.79-5,070.23)	2807.2 (1,431.75-5,445.35)	0.498			

BMI, body mass index; FLR, future liver remnant; LRF, liver reserve function; CDEJ, cumulative damage effect of jaundice.

Table S2 Univariate and multivariate analysis for hemorrhage

Variable	Univariate			Multivariate		
	No-hemorrhage (n=127)	Hemorrhage (n=44)	P	OR	95%CI	P
Age, median (Q1, Q3), year	60 (54-64)	58.5 (51-64)	0.558			
Gender, n (%)			0.667			
Male	74 (58.3)	24 (54.5)				
Female	53 (41.7)	20 (45.5)				
BMI, mean ± SD	22.02±2.53	22.09±2.4	0.873			
Cholangitis, n (%)	23 (18.1)	9 (20.5)	0.731			
Preoperative bilirubin, median (Q1, Q3)	171.2 (108.2-254.9)	225.7 (132.5-303.78)	0.025	1.004	1.001-1.007	0.014
Preoperative albumin protein, median (Q1, Q3)	37.4 (34.6-40)	36.15 (34.05-38.78)	0.183			
FLR, median (Q1, Q3)	63 (46-73)	66 (52.75-74.75)	0.657			
LRF, median (Q1, Q3)	0 (0-0.03)	0 (0-0.01)	0.573			
CDEJ, median (Q1, Q3)	2,490.7 (1,177.25-4,997.2)	2,645.93 (1,692.94-6,304.13)	0.068			

BMI, body mass index; FLR, future liver remnant; LRF, liver reserve function; CDEJ, cumulative damage effect of jaundice.

Table S3 Univariate and multivariate analysis for infection

Variable	Univariate			Multivariate		
	No-infection (n=112)	Infection (n=59)	P	OR	95% CI	P
Age, median (Q1, Q3), year	60 (52-64)	59 (54-63)	0.996			
Gender, n (%)			0.951			
Male	64 (57.1)	34 (57.6)				
Female	48 (42.9)	25 (42.4)				
BMI, mean \pm SD	60 (52-64)	59 (54-63)	0.996			
Cholangitis, n (%)	14 (12.5)	18 (30.5)	0.004	3.918	1.707-8.997	0.001
Preoperative bilirubin, median (Q1, Q3)	175.45 (99.5-273.75)	184 (147.7-258.1)	0.221			
Preoperative albumin protein, median (Q1, Q3)	37.15 (34.38-39.58)	36.7 (34-39.5)	0.847			
FLR, median (Q1, Q3)	65 (50.5-73)	64 (44-74)	0.971			
LRF, median (Q1, Q3)	0 (0-0.02)	0.01 (0-0.03)	0.017	1.181	1.023-1.363	0.024
CDEJ, median (Q1, Q3)	2,069.5 (1,230.68-4,570.21)	3,057.3 (1,548.3-5,627.65)	0.05	1	1.0-1.0	0.314

BMI, body mass index; FLR, future liver remnant; LRF, liver reserve function; CDEJ, cumulative damage effect of jaundice.