

SUPPLEMENT 2

Supplementary Table 1. Baseline characteristics and clinical outcome between CDS and HGS^a

Variables	CDS (n = 32)	HGS (n = 32)	<i>P</i> Value
Age, mean (range), years	67.63 (40, 90)	62.03 (43, 88)	.06
Male sex, no. (%)	19 (59.4)	22 (68.8)	.43
Duodenal invasion, no. (%)	9 (28.1)	9 (28.1)	>.99
Surgically altered anatomy, no. (%)			
Billroth-II	0 (0)	1 (25)	
Roux-en-Y	0 (0)	3 (75)	
Technical success, no. (%)	29 (90.6)	31 (96.9)	.61
Clinical success, no. (%)	28 (87.5)	26 (81.3)	.49
Procedure time, median (IQR), min	5.8 (3.1, 19.2)	4.8 (3.5, 7.2)	.13
Transmural fistula dilation, no. (%)			.89 ^d
1-step	22 (75.9)	24 (77.4)	
2-step	7 (24.1) ^b	7 (22.6) ^c	
Stent length (mm)	6.2±0.6	8.9±0.8	<.001
Adverse events, no. (%)			
Early (procedure-related)	2 (6.3)	2 (6.3)	>.99
Late	3 (9.4)	0 (0)	.24
Procedure severity, no. (%)			
Early Mild	1 (50)	1 (50)	

	Moderate	1 (50)	1 (50)	
Late	Mild	2 (66.7)	0 (0)	
	Moderate	1 (33.3)	0 (0)	
Reintervention rate, no. (%)		6 (18.8)	4 (12.5)	.49
Reintervention method, no.				>.99
ERCP		5 (83.3)	4 (100)	
PTBD		1 (16.7)	0 (0)	
Hospital stay, median (range), days		5 (2, 28)	4 (3, 12)	.05

^aPlus-minus values are means \pm SD. CDS denotes choledochoduodenostomy, HGS

hepaticogastrostomy, IQR interquartile range, ERCP endoscopic retrograde

cholangiopancreatography, and PTBD percutaneous transhepatic biliary drainage.

^bAdditional transmural fistula dilations were done with needle knife (n = 2), 4-mm balloon catheter without balloon dilation (n = 4), or bougie catheter (n = 1) in CDS group.

^cAdditional transmural fistula dilations were done with needle knife (N=1) or 4-mm balloon catheter without balloon dilation (n = 6) in HGS group.

^dThe rates of one-step transmural fistula dilation were calculated according to an intention-to-treat analysis.

Supplementary Table 2. Predictive factors of reintervention

Variables	No.	Reintervention (%)	Crude HR	95% CI		<i>P</i> Value	Adjusted HR ^a	95% CI		<i>P</i> Value
Age (years)										
≤ 65	57	15 (26.3)	1							
> 65	68	21 (30.9)	1.465	0.750	2.860	.26				
Sex										
Male	67	17 (25.4)	0.658	0.340	1.273	.21				
Female	58	19 (32.8)	1							
ASA class			0.794	0.347	1.821	.59				
I	10	4 (40.0)								
II	106	30 (28.3)								
III	9	2 (22.2)								
Primary cancer										
Pancreatic cancer	78	23 (29.5)	1.108	0.560	2.192	.77				
Other cancer	47	13 (27.7)	1							
Initial total bilirubin level			0.940	0.881	1.002	.06	0.946	0.886	1.011	.10
Common bile duct diameter (mm)			0.927	0.844	1.017	.11	0.951	0.864	1.048	.31
Biliary drainage method										
ERCP	61	26 (42.6)	3.339	1.607	6.940	.001	3.142	1.511	6.534	.002
EUS-BD	64	10 (15.6)	1				1			

Duodenal invasion										
Yes	31	9 (29.0)	1.460	0.685	3.111	.33				
No	94	27 (28.7)	1							
Surgically altered anatomy										
Yes	5	2 (40.0)	0.820	0.196	3.436	.79				
No	120	34 (28.3)	1							
Systemic chemotherapy										
Yes	63	20 (31.8)	0.863	0.444	1.680	.67				
No	62	16 (25.8)	1							

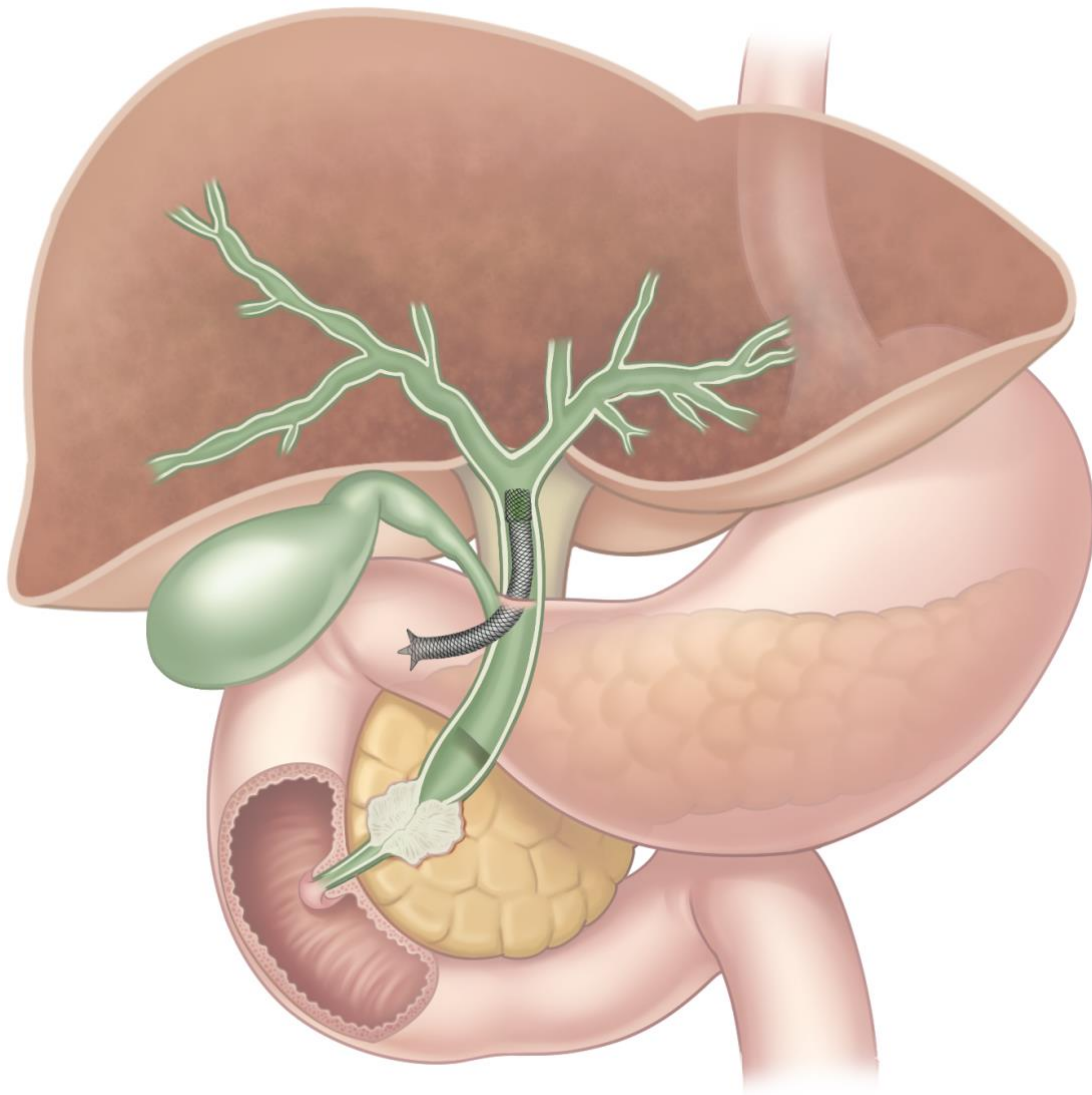
^aAdjusted variables with P<0.2 on univariate analysis.

Supplementary Figures

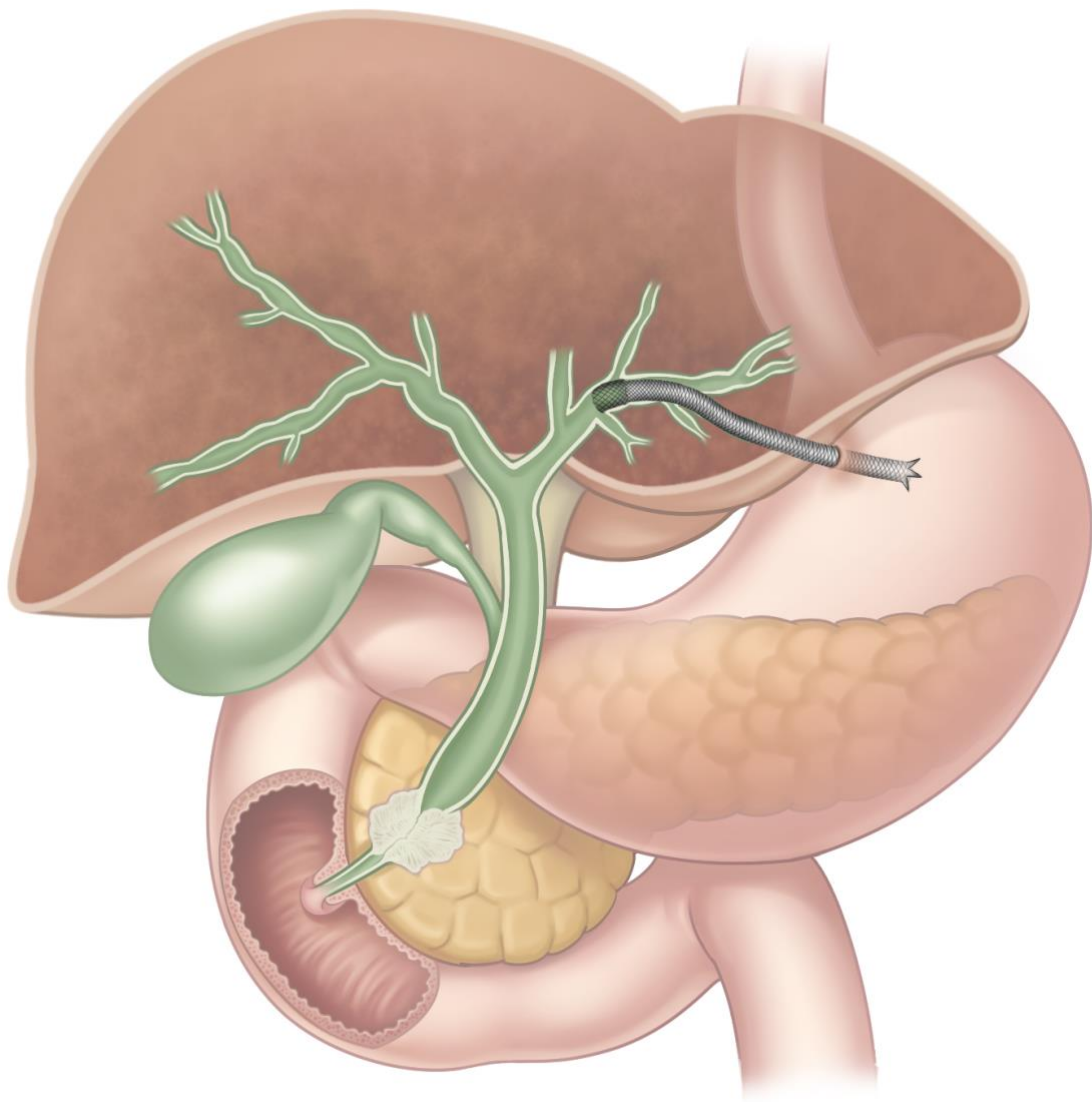
Supplementary Figure 1. Schematics of EUS-guided transmural biliary drainage.

(A) Choledochoduodenostomy and (B) hepaticogastrostomy. (C) A preloaded partially covered metal stent and one-step dedicated stent introducer with tapered metal tip which functions as a push-type dilator.

(A)



(B)



(C)

