

Supplementary Table 1. The *P*-values of Spearman correlations between preoperative CA199, CEA, ALT, AST, and TBAR.

Variables	TBAR	AST	ALT	CEA	CA199
TBAR	nan	<0.001	<0.001	0.015	<0.001
AST	<0.001	nan	<0.001	0.701	<0.001
ALT	<0.001	<0.001	nan	0.494	0.004
CEA	0.015	0.701	0.494	nan	0.006
CA199	<0.001	<0.001	0.004	0.006	nan

Supplementary Table 2. The *P*-values of Spearman correlations between preoperative CA199, CEA, ALT, AST, and FAR.

Variables	AST	ALT	CEA	CA199	FAR
AST	nan	<0.001	0.701	0	0.001
ALT	<0.001	nan	0.494	0.004	0.016
CEA	0.701	0.494	nan	0.006	0.24
CA199	<0.001	0.004	0.006	nan	0.001
FAR	0.001	0.016	0.24	0.001	nan

Supplementary Table 3. Univariable and multivariable Cox regression analysis of recurrence free survival time in ampullary adenocarcinoma.

Variables	Univariate analysis			Multivariate analysis		
	HR	95% CI	<i>P</i>	HR	95% CI	<i>P</i>
Gender						
Male		Reference				
Female	1.232	[0.796,1.905]	0.349			
Age						
<60		Reference				

≥60	0.930	[0.592,1.462]	0.754			
Differentiation						
Poor		Reference			Reference	
Moderate	0.951	[0.588,1.540]	0.839	1.231	[0.734,2.064]	0.432
Well	0.530	[0.289,0.970]	0.040	0.959	[0.459,2.002]	0.911
Tumor size						
≤2cm		Reference				
>2cm	1.138	[0.740,1.750]	0.557			
Perioperative transfusion						
No		Reference				
Yes	0.751	[0.486,1.160]	0.197			
T stage						
I		Reference			Reference	
II	1.121	[0.564,2.226]	0.744	0.774	[0.353,1.693]	0.521
III	2.460	[1.326,4.561]	0.004	0.922	[0.274,3.104]	0.896
Examined lymph nodes						
<12		Reference				
≥12	1.230	[0.796,1.900]	0.352			
Lymph node metastasis						
No		Reference			Reference	
Yes	2.384	[1.506,3.773]	<0.001	1.300	[0.611,2.765]	0.494
TNM stage						
I		Reference			Reference	
II	2.172	[1.314,3.589]	0.002	1.780	[0.595,5.323]	0.302
III	3.627	[2.021,6.509]	<0.001	2.039	[0.484,8.587]	0.332
Vessel invasion						

No		Reference			Reference	
Yes	2.213	[1.396,3.509]	0.001	1.371	[0.767,2.452]	0.287
Postoperative complications						
No		Reference				
Yes	0.939	[0.596,1.481]	0.787			
Adjuvant treatment						
No		Reference				
Yes	1.338	[0.843,2.124]	0.217			
CEA	1.002	[0.999,1.004]	0.197			
CA199	1.000	[1.000,1.000]	0.843			
TBAR	0.977	[0.889,1.072]	0.620			
FAR	0.691	[0.308,1.550]	0.370			
Score						
0		Reference			Reference	
1	0.614	[0.391,0.964]	0.034	0.757	[0.468,1.227]	0.259
2	0.227	[0.070,0.731]	0.013	0.328	[0.098,1.093]	0.070