

Prognostic significance of regional lymphadenectomy in T1b gallbladder cancer: Results from 24 hospitals in China

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Supplementary Table 1 Association between surgery type and overall survival in T1b gallbladder cancer patients, excluding patients who underwent cholecystectomy combined with regional lymphadenectomy and had missing nodal status (Nx)

Variable	HR (95%CI)	P value
Ch + RL <i>vs</i> Ch	0.45 (0.22-0.94)	0.035 ^a
Age > 60 yr	1.56 (0.71-3.42)	0.27
Female sex	0.66 (0.29-1.53)	0.32
High hospital volume	1.09 (0.53-2.26)	0.81
Negative margin	0.32 (0.12-0.87)	0.026 ^a

^a $P < 0.05$. HR: Hazard ratio; Ch + RL: Cholecystectomy combined with regional lymphadenectomy; Ch: Cholecystectomy.

Supplementary Table 2 Association between surgery type and overall survival in T1b gallbladder cancer patients, excluding patients who had a positive resection margin

Variable	HR (95%CI)	P value
Ch + RL <i>vs</i> Ch	0.48 (0.23-0.98)	0.045 ^a
Age > 60 yr	2.06 (0.87-4.84)	0.098
Female sex	0.68 (0.32-1.46)	0.33
High hospital volume	0.81 (0.40-1.67)	0.57

^a*P* < 0.05. HR: Hazard ratio; Ch+RL: Cholecystectomy combined with regional lymphadenectomy; Ch: Cholecystectomy.

Supplementary Table 3 Association between surgery type and overall survival in T1b gallbladder cancer patients, including hepatectomy as a predictor

Variable	HR (95%CI)	P value
Ch + RL <i>vs</i> Ch	0.37 (0.14-1.00)	0.050 ^a
Age > 60 yr	1.89 (0.88-4.08)	0.10
Female sex	0.57 (0.27-1.20)	0.14
High hospital volume	1.02 (0.52-2.02)	0.95
Negative margin	0.31 (0.11-0.84)	0.021 ^a
Hepatectomy	1.55 (0.58-4.14)	0.38

^a*P* < 0.05. Model adjusted for age (\geq 60 yr *vs* <60 yr), sex, hospital volume (high *vs* low), resection margin (positive *vs* negative), and hepatectomy (performed *vs* not performed). HR: Hazard ratio; Ch + RL: Cholecystectomy combined with regional lymphadenectomy; Ch: Cholecystectomy.

Supplementary Table 4 Comparison of the characteristics of T1b gallbladder cancer patients who underwent cholecystectomy alone or cholecystectomy combined with regional lymphadenectomy, stratified by whether hepatectomy was performed

Characteristic	No hepatectomy (n = 23)	Hepatectomy (n = 54)	P value
Age, mean \pm SD (yr)	62.1 \pm 10.1	61.1 \pm 9.2	0.66
Female sex	15 (65.2)	42 (77.8)	0.25
Admitted to high-volume centers ¹	9 (39.1)	22 (40.7)	0.90
Bile duct resection	1 (4.3)	4 (7.4)	1.00
Nodal metastasis status			0.28
Negative (N0)	15 (65.2)	40 (74.1)	
Positive (N+)	1 (4.3)	6 (11.1)	
Undetermined (Nx)	7 (30.4)	8 (14.8)	
No. of examined nodes, median (range)	2 (0-14)	3.5 (0-14)	0.090
Negative resection margin	23 (100)	50 (92.6)	0.31
Poor histological grade	4 (17.4)	11 (20.4)	1.00
Microscopic vascular invasion	0 (0)	3 (5.6)	0.55
Perineural invasion	0 (0)	1 (1.9)	1.00

¹Hospitals admitting more than 20 gallbladder cancer patients *per year*.

Supplementary Appendix 1 The Chinese Research Group of Gallbladder Cancer is a retrospective multicenter cohort. We appreciate the following collaborators involved in this study

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Supplementary Appendix 2

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