

## Prognostic Role Of Liver Resection In Extended Cholecystectomy For T2 Gallbladder Cancer Revisited: A Propensity Score-Matched Analysis

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**Background** : Although extended cholecystectomy is recommended for T2 gallbladder cancer (GBC), the optimal surgical extent remains controversial. This study aims to evaluate the prognostic role of liver resection in T2 GBC.

**Methods** : Patients who underwent extended cholecystectomy for T2 GBC between January 2010 and December 2020 at three tertiary referral hospitals were analyzed. Extended cholecystectomy was defined as either lymph node dissection with liver resection (LND+L) or lymph node dissection only (LND). We conducted a 2:1 propensity score matching to compare the survival outcomes between LND+L and LND groups.

**Results** : Of the 197 patients enrolled, 100 patients from the LND+L group and 50 patients from the LND group were successfully matched. The LND+L group was associated with more estimated blood loss ( $P < 0.001$ ) and longer postoperative hospital stay ( $P = 0.047$ ). There was no significant difference in 5-year disease-free survival (DFS) between the LND+L and LND groups (82.7% vs. 77.9%,  $P = 0.376$ ). Subgroup analysis showed that 5-year DFS was similar between the LND+L and LND groups in all T stages (T2a: 77.8% vs. 81.8%,  $P = 0.988$ ; T2b: 88.1% vs. 71.5%,  $P = 0.196$ ). In multivariable analysis, lymph node metastasis (hazard ratio (HR) 4.80,  $P = 0.006$ ) and perineural invasion (HR 2.61,  $P = 0.047$ ) were independent risk factors for recurrence; liver resection was not a prognostic factor (HR 0.68,  $P = 0.381$ ).

**Conclusions** : In selected T2 GBC patients, extended cholecystectomy including lymph node dissection without liver resection could be a reasonable treatment option.

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