



## Regional lymphadenectomy strongly recommended in T1b gallbladder cancer

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### Abstract

This article discusses the adequate treatment of early gallbladder cancer (T1a, T1b) and is based on published studies extending over nearly 3 decades. Randomized studies and meta analyses comparing different surgical treatments do not exist. The literature shows that in up to 20% of patients lymph node metastasis are found in T1b gallbladder cancer. Due to high malignancy with early angiolymphatic spread and resistance to chemotherapy and radiation on the one hand, and the relative low operative risk of extended cholecystectomy (cholecystectomy and regional lymphadenectomy) on the other hand, we believe that this procedure is mandatory in early gallbladder cancer.

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**Key words:** Gallbladder cancer; Long-term survival; Lymphadenectomy; Surgical treatment

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### TO THE EDITOR

We read with interest the systematic review by Lee and colleagues, which compares the results of surgical treatment of T1a and T1b gallbladder cancer with cholecystectomy alone or by extended cholecystectomy<sup>[1]</sup>. In this study, the published results of 1266 patients were evaluated. The authors conclude that there is no evidence to show that extended cholecystectomy is advantageous over simple cholecystectomy for T1b cancer. However, they recommend performing regional lymphadenectomy in T1b gallbladder cancer. The argument for extended cholecystectomy was mentioned at the end of the discussion: via lymphadenectomy material can be obtained for correct staging which is the basis for possible re-resection.

In fact, the debate on adequate treatment of so-called early gallbladder cancer has extended over nearly 3 decades<sup>[2]</sup>. Randomized controlled studies and consecutive meta-analyses comparing different surgical treatment strategies for T1a and T1b gallbladder cancer do not exist.

The general accepted opinion of visceral surgeons - as the leading physicians for this disease- is to perform regional lymphadenectomy in patients with T1b status on<sup>[3]</sup>.

In their retrospective evaluation, Lee and colleagues found that 10.8% of patients had lymph node metastasis in T1b gallbladder cancer, and 9.3% of patients with T1b gallbladder cancer died due to tumour recurrence. 12.5% of T1b patients had recurrence after simple cholecystectomy, and only 2.7% had recurrence after extended cholecystectomy. These data are consistent with recent studies.

In contrast, the rate of postoperative morbidity was 28% and postoperative mortality was 1.5% after extended cholecystectomy in the evaluation by Lee *et al*<sup>[1]</sup> which, in our opinion, may not be representative<sup>[4]</sup>.

The detection rate of early gallbladder carcinoma has increased in recent years, due to the high frequency of laparoscopic cholecystectomy. Currently, the detection rate of T1a and T1b tumours exceeds more than the 10% as cited by Lee and colleagues, who evaluated data from 1991 on. The high rate of open cholecystectomy (e.g., 54.4% in T1a gallbladder carcinoma) argues for a past era in the treatment of benign gallbladder disease.

In the debate on surgical strategies for early gallbladder cancer, an exact comparison of operating procedures is mandatory as there is a wide variation in the procedures carried out by surgeons during “regional lymphadenectomy”.

Regional lymphadenectomy in our group consists of lymphadenectomy in the hepatoduodenal ligament, pericholedochal, periportal and along the celiac axis.

When considering current experience in the interdisciplinary treatment of solid gastrointestinal cancer, abandonment of lymphadenectomy in submucosal T1b-esophageal-, gastric-, and colorectal cancer is no longer defensible<sup>[3]</sup>.

The characteristics of gallbladder cancer are high malignancy with aggressive direct, lymphatic and hemato-

gen-venous spread, and extensive resistance to chemotherapy and radiation<sup>[6]</sup>. Combined with the low morbidity and mortality of regional lymphadenectomy, this procedure is mandatory in T1b cancer of the gallbladder<sup>[4]</sup>.

The study by Lee and colleagues is important and commendable. It shows that oncosurgical treatment recommendations for patients with highly malignant cancer are not only based on literature studies.

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