

## Esophageal Cancer

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### **Lymphovascular Invasion as a Tool to Further Subclassify T1b Esophageal Adenocarcinoma**

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**Background:** Lymphovascular invasion (LVI) and/or lymph node metastases (LNM) adversely influence overall survival (OS) of T1 esophageal adenocarcinoma patients. While endoscopic therapy may be adequate for T1a cancer, T1b cancer requires esophagectomy/lymphadenectomy. We hypothesized that the LVI status would subclassify T1b cancers and facilitate new therapeutic strategies.

**Methods:** We analyzed 99 consecutive patients with T1 adenocarcinoma after esophagectomy/lymphadenectomy. LNM was assessed in all patients and LVI in 89 patients. OS was correlated with pathologic cancer stage in association with LVI and LNM.

**Results:** The 5-year OS rate for T1a (88%) was superior to that for T1b (62%;  $P=.001$ ). The 5-year OS rate for cancers without LVI (85%) was superior to cancers with LVI (36%;  $P=.0001$ ). Importantly, the 5-year OS rate of patients with T1b cancer without LVI (77%) was similar to that for T1a cancer (90%;  $P=.08$ ), but was superior to that for T1b

cancer with LVI (27%;  $P=.006$ ). Presence of LVI and/or LNM resulted in worse OS at 5 years ( $\leq 37\%$ ) compared with lack of LVI or LNM (88%;  $P<.001$ ). The rate of LNM for T1b without LVI was still 19% and relapse rate was 16%.

**Conclusions:** We demonstrate that LVI distinguishes the biologic behavior of early esophageal cancer, and patients with T1b cancer without LVI have a similar clinical biology as patients with T1a cancer. If LNM before surgery can be diagnosed with high sensitivity by better endoscopic techniques and/or molecular biomarkers, a new therapeutic paradigm for T1b cancers could emerge. Further research is needed on T1b esophageal adenocarcinoma patients.

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