Lymphatic Mapping and Focused Analysis of Sentinel Lymph Nodes Upstage Gastrointestinal Neoplasms

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Précis: Sentinel node analysis increased detection of gastrointestinal cancer micrometastasis

Introduction
A sentinel lymph node (SLN) is the first lymph node along the route of lymphatic drainage from a primary tumor. Sentinel lymph nodes receiving lymphatic drainage from a tumor can be removed by limited surgery and examined to determine whether more extensive lymph node dissection is necessary. Sentinel lymph node biopsy carries lower morbidity and cost than a complete lymph node dissection. In this study, the researchers evaluated the feasibility of lymphatic mapping including SLN biopsy in gastrointestinal (GI) malignancies.

Method
A total of 65 patients with GI cancers were tested using intraoperative lymphatic mapping and sentinel lymphadenectomy.

Results
- At least one sentinel lymph node either involved or uninvolved was found in 95% of patients.
- 36 cases of nodal metastases were identified, of which 89% had at least one positive sentinel node.
- Fifteen of the patients had metastases only to the sentinel node.
- Sentinel node was the only positive node in all T1 stage cancers and 70% of T2 stage cancers.

Discussion
In this study of patients with gastrointestinal cancers, lymphatic mapping and sentinel lymphadenectomy was feasible and accurately predicted the tumor status of regional lymph nodes, and identified abnormal lymphatic drainage. This is an important extension of the clinical application of sentinel node sampling. We should expect to see this technique used in a variety of tumors in different portions of the body.