Technique for reliable sentinel node biopsy in squamous cell carcinomas of the floor of mouth

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BACKGROUND
Applicability of sentinel node biopsy (SNB) for tumors of the floor of mouth (FOM) is controversial.

METHODS
Prospective evaluation of the accuracy of gamma-probe-guided superselective neck dissection of the preglandular triangle of level I for SNB in FOM squamous cell carcinoma (SCC) after preoperative lymphoscintigraphy and single photon emission CT (SPECT)/CT.

RESULTS
In total, 22 sentinel lymph nodes were harvested in level I. Eight of 22 (36%) were seen on lymphoscintigraphy and 11 (50%) on SPECT/CT. Eleven sentinel lymph nodes (50%) were only detected intraoperatively. In unilateral tumors, 20% were contralateral, and, in midline tumors, 93% showed bilateral level I sentinel lymph nodes. The false-negative rate was 8.3%, the negative predictive value was 96.4%, and the false-omission rate was 3.6%. The ultimate neck control rate, including salvage treatment, was 100%.

CONCLUSION
SNB in FOM can be reliably performed using the presented surgical technique. Level I exploration, bilaterally in midline tumors, is mandatory irrespective of the visualization of sentinel lymph nodes in other levels. © 2016 Wiley Periodicals, Inc. Head Neck 38: 1367-1372, 2016.