



Lymphoscintigraphy and SPECT-CT as an effective tool for early detection of sentinel lymph node in oral carcinoma

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BACKGROUND AND OBJECTIVES

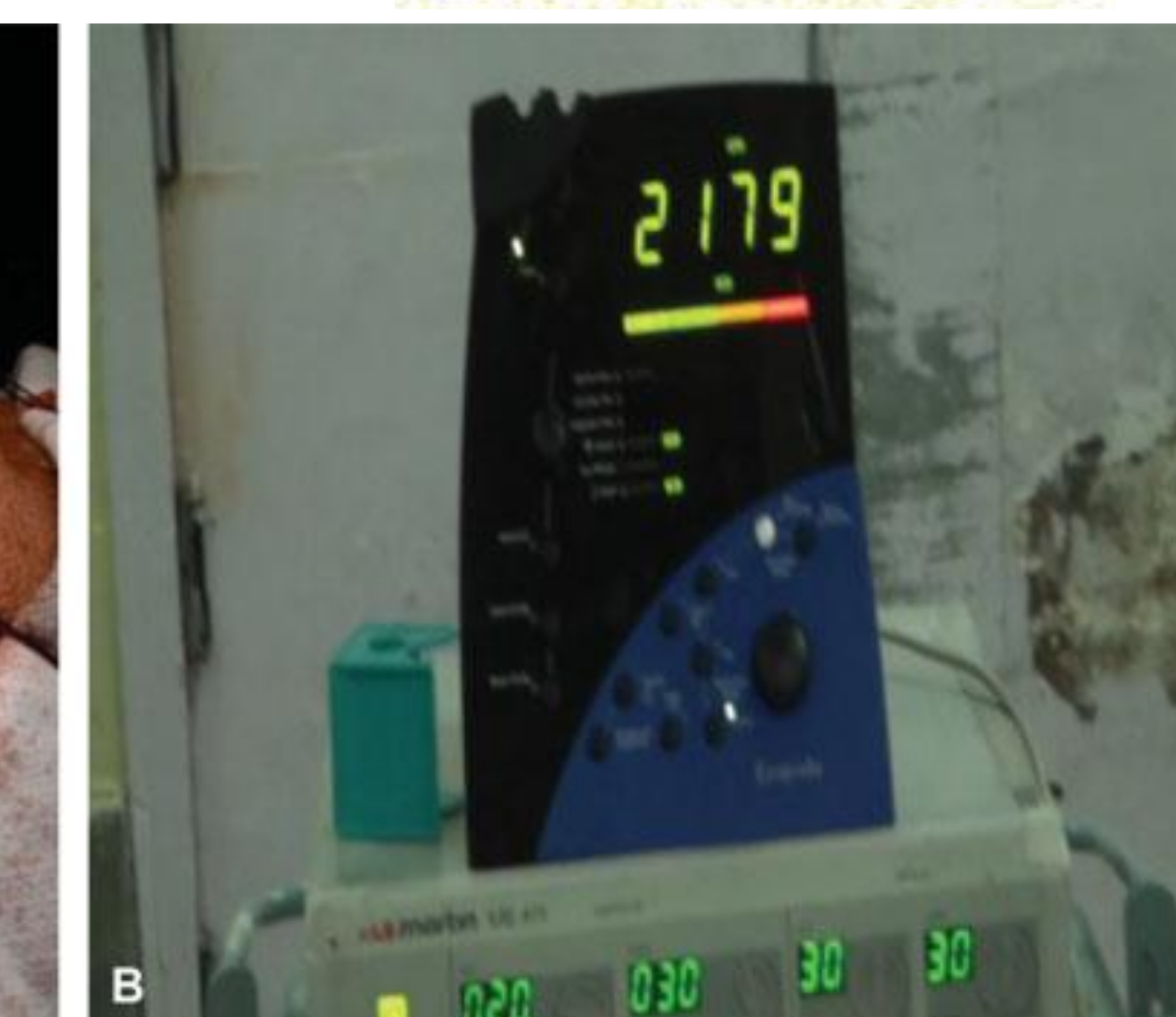
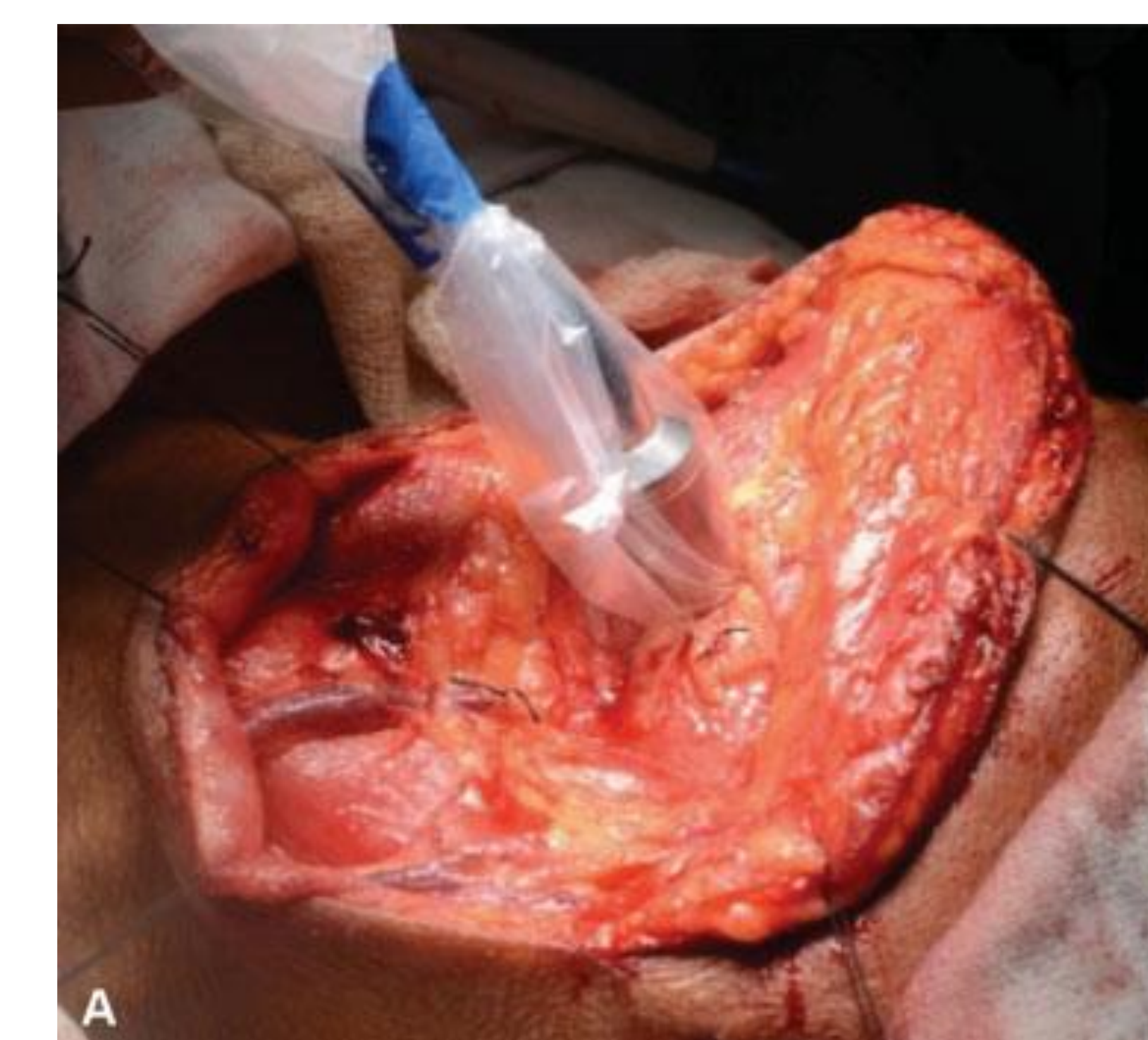
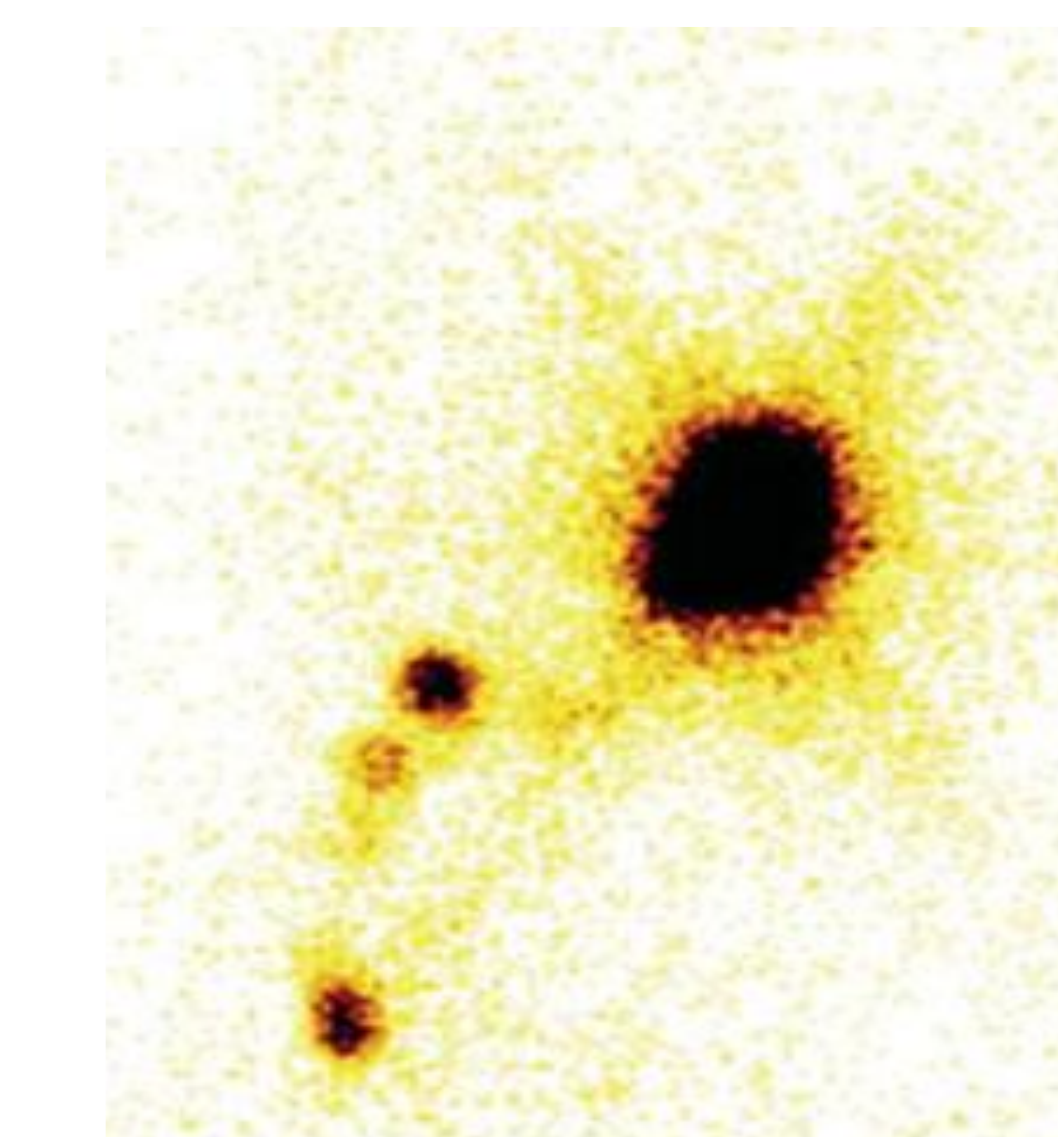
- The efficacy of sentinel node biopsy in early stage oral cancer is well established. Its evolving role can be reinforced by further studies.
- The objective of the study was to analyze the predictability of the levels of echelon nodes for various oral cavity tumor subsites on sentinel node biopsy.

MATERIAL AND METHODS

- A prospective study of 20 patients with stage I/II oral squamous cell carcinoma who underwent sentinel node biopsy-guided neck dissection between January 2017 and 2018 at our institute.
- The procedure included radiotracer injection, imaging (lymphoscintigraphy, single photon emission computed tomography-computed tomography), and gamma probe application. Sentinel node detection on imaging and gamma probe were compared.

RESULTS

- Out of 20 patients, 13 (65%) had carcinoma of the tongue, 6 (30%) had buccal mucosa carcinoma, and 1 (5%) had retromolar trigone carcinoma. The mean age of the patients was 52.3 years. A total of 13 (65%) patients were male, and 7 (35%) were female.
- The sentinel node identification rates with imaging and gamma probe were of 70% and 100% respectively. In tongue and retromolar trigone primaries, the most common first-echelon nodes in both modalities were levels IIA and IB respectively. For buccal mucosa primaries, first-echelon nodes were detected only with the gamma probe, which was level IB.
- On imaging, second-echelon nodes were detected only for tongue primaries, and had equivalent incidence of levels II, III, and IV. On the gamma probe, level IIA, followed by III, and IV for the tongue, and level IIA were the most common second-echelon nodes for the buccal mucosa. Third-echelon nodes were detected only with the gamma probe for tongue carcinoma at level IV.



CONCLUSION

- The combined use of imaging and gamma probe provides the best results, with high identification rate and predictability of echelon levels..