ABSTRACT

Aim: The aim of this study was to present one center experience in applying the SNOLL technique to patients with suspected occult breast lesions.

Background: In the last years, the widespread use of mammographic screening programs resulted in an increasing number of women with nonpalpable suspicious breast lesions requiring further examination. The new method called sentinel node and occult lesion localization (SNOLL) enables the intraoperative detection of nonpalpable breast tumors and sentinel node biopsy in one surgical procedure.

Materials and methods: 46 patients with suspected malignant lesions or diagnosed non-palpable breast cancer were subjected to a pre-operative SNOLL procedure. The day before the surgery, they were administered two radiotracers: one to localize the tumor and the other to localize the sentinel node. During the surgery, the breast tumor and the sentinel node, which in most cases had been examined intraoperatively, were detected with a handheld gamma probe and resected under its control.

Results: All 46 (100%) patients had their occult breast lesions resected. Histopathologic examination revealed cancer in 40 patients: in situ in 2 cases, invasive in 38 cases. All these patients had their sentinel nodes examined. In one case only, the sentinel node could not be located with a gamma probe. Intraoperative tests showed the sentinel node to be metastatic in 5 patients, who were then given a simultaneous axillary lymphadenectomy. In addition, the final histopathologic examination revealed metastasis to the sentinel node in one patient, who had to be reoperated.

Conclusion: SNOLL is a modern technique that enables a precise intraoperative localization of non-palpable suspected malignant breast lesions in combination with a sentinel node biopsy. Extended application of intraoperative management leads to significant decrease in the number of reoperations performed in patients with early breast cancer.

Keywords: Nonpalpable breast cancer; Sentinel node biopsy; Radioisotopes; SNOLL