

Sentinel lymph node biopsy in patients with pure and high-risk ductal carcinoma *in situ* of the breast

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ABSTRACT

Aims and background. The role of sentinel lymph node biopsy in patients initially diagnosed with ductal carcinoma *in situ* resides in determining the predictors of invasive disease. The aim of the present study was to examine the incidence of sentinel lymph node metastases in a selected group of patients, with characteristics of high-risk ductal carcinoma *in situ*, in order to determine the clinical usefulness of sentinel lymph node biopsy.

Methods. A total of 90 patients with a biopsy diagnosis of ductal carcinoma *in situ* were treated. Fifty-two patients with high-risk ductal carcinoma *in situ* had sentinel lymph node biopsy. The following characteristics of the primary tumor were considered as indicative of a risk of invasive disease: presence of palpable mass, mammographic mass, multicentric disease that required mastectomy, and histologically high nuclear grade or non-high nuclear grade with necrosis. Subdermal injections of ^{99m}Tc-labeled human albumin and subareolar injection of blue dye were used for sentinel lymph node identification. All sentinel nodes were sectioned serially and stained with hematoxylin and eosin. Immunohistochemical analysis was performed using a cytokeratin monoclonal antibody.

Results. A positive sentinel lymph node was found in only one patient (1.9%). The patient had a double lesion, and core-needle biopsy showed an atypical ductal hyperplasia and an intermediate degree of ductal carcinoma *in situ*. At pathologic review of the specimen, no invasive aspect was detected.

Conclusions. The results of our study indicate that sentinel lymph node metastasis in pure ductal carcinoma *in situ* is extremely uncommon. We therefore suggest that sentinel lymph node biopsy might be indicated for patients with ductal carcinoma *in situ* detected as a palpable mass or as large extensive microcalcifications, as well as for patients who are undergoing mastectomy, especially with immediate reconstruction.

Key words: breast cancer, ductal carcinoma *in situ*, mastectomy, sentinel lymph node biopsy.

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