Author's response to reviews

Title: Role of axillary sentinel lymph node biopsy in patients with pure ductal carcinoma in situ of the breast

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Author's response to reviews: see over
Reviewer: Andrew Spillane

Major compulsory revisions:

1- Reliability of SLN biopsy after primary tumour excision is still controversial, but most authors believe that previous excisional biopsy does not increase the false negative rate. We already stressed in the Discussion section (page 10) that DCIS requiring wide excision in the upper outer quadrant should be considered for concomitant SLN biopsy, since breast surgery might disrupt lymphatic pathways toward the axilla, thus compromising the reliability of delayed SLN biopsy.

2- We added in the Discussion section that most of our patients presented with low risk tumours (page 10).
   However, even on considering only patients with tumours measuring > 1 cm, the incidence of a positive SLN would have been 2% (1/48), which is still very low and does not justify the routine use of SLN biopsy in DCIS. Moreover, as stated by us in the Discussion section (page 10), several authors have failed to find correlations between the histopathologic features of the primary DCIS and presence of SLN metastases.

3- Only 20/102 patients presented with a palpable breast node. This datum has been added to the Results section (page 7).

4- We advocate SLN biopsy in patients who undergo mastectomy irrespective of the results in our own series (the only SLN positive case had a conservative operation), because: 1) patients who require mastectomy usually have large DCIS, with a real risk of a microinvasive focus being overlooked at histology and 2) if invasion is found in the mastectomy specimen, these patients must undergo an axillary dissection since SLN biopsy cannot be performed after mastectomy.

5- We agree that the mean number of excised SLNs (1.4) is slightly lower than that in most reported series. This partly depends on the fact that the collection of patients began in 1999, when the indication to remove less radioactive nodes was still not clearly established and some surgeons routinely excised only the hottest node. We do not know whether this attitude led to a significantly higher false negative rate in our series and, of course, this hypothesis cannot be verified since none of our patients had concomitant axillary dissection. However, in the same year we studied a series of 126 patients with invasive breast cancer who underwent SLN biopsy followed by complete axillary dissection, finding a mean of 1.33 excised SLNs and a false negative rate of 10.9 %, which is not negligible but is similar to rates in other published multi-institutional studies (Zavagno G. et al: Sentinel node biopsy in breast cancer. The Breast 9: 139-143, 2000).
   In the present series, SLN biopsy was performed after excisional biopsy of the primary tumour in only 11 patients, since in most cases we performed this procedure at the same time of primary tumour excision.

6- In the positive SLN case, we found a true micrometastasis with a diameter of 0.6 mm, diagnosed with H&E staining, and not an isolated tumour cells deposit. The patient did not have preoperative core-biopsy or FNAC and the SLN biopsy was performed at the same time of primary tumour excision. These data have been added to the Results section.

Minor essential revisions

1- The correction has been made
2- The sentence has been modified

**Reviewer: H. Cody**

**Discretionary revisions**

1- The sentence has been modified, and it is now pointed out that FNAC could only support a diagnosis of breast malignancy, without it being possible to distinguish between in situ and invasive types (page 5)

2- We performed SLN biopsy at the time of primary lesion in 91/102 cases. These data have been added to the Results section (page 7). In these cases, frozen section examination of the primary tumour before SLN biopsy was rarely performed, since, in most cases, the primary lesion consisted of a small area of microcalcifications and we believe that in these cases frozen section histology is contraindicated.

3- Unfortunately, the incidence of unnecessary SLN biopsies in patients with benign breast lesion is not available, since each Institution selected its own cases on the basis of a final histologic diagnosis of DCIS. I reviewed my own cases (24 patients with preoperative diagnosis of DCIS who underwent SLN biopsy) and found that in 1 case with a preoperative mammography suggesting DCIS, we performed a SLN biopsy for a breast lesion that, at definitive histology, was found to be benign. The risk of performing an unnecessary SLN biopsy for benign breast lesions is real if this procedure is routinely performed in all patients with a preoperative diagnosis of DCIS at the time of primary tumour excision, and this point is now made in the Discussion (page 9).