

ANSWERING REVIEWERS

Dear Editor,

Please find enclosed the edited manuscript in word format (file name: 20454-Review.doc).

Title: Sentinel lymph node biopsy in clinically detected ductal carcinoma *in situ*

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The manuscript has been improved according to the suggestions of reviewers:

Reviewer's code: 00181208.

The author comments:

This is an interesting small clinical study on the use of SLNB for carcinoma in situ of the breast. Only 20 patients are included but some useful insights can be derived and thus it is worth publishing. The study is of particular interest for settings where screening programs are not in place and DCIS is diagnosed clinically. Some specific points for consideration: 1. Data on hormone receptor status are said to be recorded but are not presented. They would be of interest, 2. Data on follow-up and outcomes as well as adjuvant treatments such as radiation and hormonal therapy would also be of additional interest. 3. The usual procedure for SLN identification in most centers involves the combination of technetium and methylene blue injection. It would be of interest for the authors to comment on why they use only technetium although it does not seem to have affected at all their ability to identify the SLN. 4. The recommendation in the presented algorithm of a delayed SLNB in case of lumpectomy assumes that there is no effect on the lymphatic drainage by a previous operation and this is somewhat controversial although previous operation seems to be less of concern according to accumulating literature. Addition of a brief discussion on this point would be an added asset for the paper.

1. and 2. As suggested by Editor receptors status and hormonal and radiation therapy has been added on [Table 1].

| Character | Number | Percentage |
|-------------------|--------|------------|
| Age | | |
| Mean | 49.7 | |
| Range | 35-70 | |
| Menopausal status | | |
| Pre | 12 | 60% |

| | | |
|------------------------------|----|-------|
| Post | 8 | 40% |
| Clinical presentation | | |
| Mammographically detected | 2 | 10% |
| Clinically detected | | |
| | 18 | 90 % |
| Clinically detected | | |
| Palpable mass | 15 | 83.3% |
| Nipple discharge | 1 | 5.5% |
| Paget's | 2 | 11.1% |
| Multicentricity/mulifocality | 5 | 25% |
| Initial diagnostic tool | | |
| FNA | 2 | 10% |
| CNB | 18 | 90% |
| Type of surgery | | |
| Lumpectomy | 5 | 25% |
| Simple mastectomy | 10 | 50% |
| Skin sparing M | 5 | 25% |
| Tumor size | | |
| < 3 cm | 3 | 15% |
| > 3 cm < 6 cm | 12 | 60% |
| > 6 cm | 5 | 25% |
| Nuclear grade: | | |
| Low | 0 | |
| Intermediate | 9 | 45% |
| High | 11 | 55% |
| Histology: | | |
| With central necrosis | 11 | 55% |

| | | |
|--------------------------|----|-----|
| Without central necrosis | 9 | 45% |
| Final histology: | | |
| Pure DCIS | 14 | 70% |
| ¹ DCIS+MIC | 3 | 15% |
| ² DCIS+IDC | 3 | 15% |
| Hormonal receptors | | |
| ER+ PR+ | 6 | 30% |
| ER- PR- | 10 | 50% |
| Unkown | 4 | 1 % |
| Her2/neu | | |
| Her2/neu+ | 9 | 45% |
| Her2/neu- | 4 | 1% |
| Unkown | 7 | 35% |
| Adjuvant radiotherapy | | |
| Yes | 5 | 25% |
| No | 15 | 75% |

And more information about hormonal, chemo and radiation therapy was added:

Postoperative radiotherapy was offered to patients who underwent a lumpectomy. Hormonal therapy was given only to patients with DCIS with microinvasion or invasive carcinoma if they were hormone receptor positive.

3. As suggested by editor, we explained why we use only technetium not in a combination with dye. Also we supported this with a reference [14]

The SLN identification procedure at KFSH and RC involves the sole use of technetium injection. We have achieved high identification rates with the use of the gamma probe technique and we believe as others “European Institute of Oncology in Milan” that the combination approach (blue dye and technetium) is not worthwhile[14]. The success of this approach is obvious with the rates outlined in (Table 2).

4. As suggested by reviewer, explanation regarding effect of lumpectomy on lymphatic drainage and supported the explanation by references [19 and 20]

Theoretically, there is concern that a wide local excision in the upper outer quadrant will disrupt the lymphatic drainage into the sentinel lymph node and therefore will affect negatively the

accuracy of performing a SLNB after such a surgical procedure^[19,20]. Unfortunately, the literature in this area is limited and controversial^[20].