

Axillary Management of Carcinoma Breast

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Abstract

We present the case of a 52-year-old female, who presented to us with a lump in the (L) breast. She is premenopausal, married with three children.

The case is not very different from the other patients who present with breast lump and when investigated, confirmed to be carcinoma and they received treatment as per the guidelines and patient reference. But as it is the most recent case in our series of operated carcinoma breast, we have taken it as a case study to review the axillary treatment in carcinoma breast, being practiced by most breast surgeons.

The axilla was negative clinically and on usg with only five lymph nodes seen in the axilla of size 1.8x0.9 cm with preserved hilum.

The enlarged lymph nodes were identified as sentinel lymph node with methylene blue injections and taken for biopsy.

The patient had a relatively large breast, where conservation of breast surgery was a good option but the patient considering all the options wanted to go for total mastectomy.

The patient also considered the advantages of axillary LN dissection and decided to go for radiotherapy in case a sentinel lymph node biopsy shows metastatic deposits.

The patient was taken up for left total mastectomy, with sentinel lymph node biopsy. The lymph node enlargement was reactive. The lymph node biopsy showed no metastatic deposits. Biopsy of the breast lump showed infiltrating lobular carcinoma with clear margins. Four other lymph nodes sent, along with the above large LN, were found to be disease-free. Patient was referred for Radiotherapy to Oncology.

INTRODUCTION

Breast cancer is the most frequently encountered malignancy in the females, with 400K annual deaths.

Sentinel lymph node biopsy has been used for long to decide the axillary management. We present the latest case of a 52-year-old female who was diagnosed with carcinoma (L) breast with no clinically detectable axillary lymph nodes to decide the management of the axilla, i.e. to go ahead with ALND (axillary lymph node dissection) or avoid it, thereby decreasing the morbidity associated with axillary dissection without changing the staging or survival.

This is in contrast to the long-followed breast cancer treatment where it was mandatory to remove the breast, underlying muscles and draining lymph nodes.

Radical mastectomy also included the removal of the internal mammary group of lymph nodes. But it was seen that many women developed, distant metastasis even after regional lymph node dissections.

Sentinel LN, as we know, is the first draining LN, which gets involved before the other LN are involved. The dye that we use in our patient is blue (Patent blue). The Sentinel lymph nodes are identified and dissected. If they are found to have tumor cells, the surgeon proceeds further and does

an axillary dissection, otherwise no.

Sentinel LN biopsy, in the management of early carcinoma, is practiced routinely like we did for our patient with T2 (in the TNM) classification, but clinically negative lymph nodes.

Biopsy of sentinel lymph node is a routine recommendation of several studies in node-negative breast cancer.

With all the advantages of Sentinel LN biopsy, there is a drawback too, as sentinel lymph node may be the only LN involved. There are patients who actually do not need axillary dissection but are subjected to axillary dissection unnecessarily.

So, the concept of more conservative and less radical surgery came. Follow up on these patients in various studies showed no difference in survival in conservative and radical management, including those with nodal irradiation instead of axillary LN dissection.

But some studies have shown survival advantage after axillary lymph node dissection.

But axillary dissection cannot be taken lightly. Even if we follow the studies which show improved survival after axillary LN dissection because of the morbidities it can cause like reduced shoulder movement, pain, paresthesia and possibly lymphedema.

Therefore, it is to be concluded that avoiding LN dissection in women who do not have disease in the axilla can prevent them from an unnecessary procedure and its morbidities.

This leads to Sentinel lymph node biopsy, which avoids unnecessary axillary operation [which could lead to above mentioned morbidities] and at the same time providing information about stage.

Patients with large tumors are not usually taken for conservative management. Our patient was T2 and with a large breast size where conservative management (lumpectomy) was a good option, but she wanted to go for mastectomy after considering all the options.

I would like to mention for my readers that this conservation surgery is an option for T3, T4 tumors after they have been down staged using neoadjuvant therapy. With prior neoadjuvant therapy and clinically negative axilla, T3 and T4 tumors can have sentinel lymph node biopsy instead of axillary LN dissection, and let sentinel

node decide the treatment for the axilla-dissection or for no dissection.

Our patient decided for axillary radiotherapy instead of axillary lymph node dissection in case needed after sentinel LN biopsy.

For clinically positive or negative lymph nodes labelling we use clinical examination and US.(Axillary US) Which can detect metastasis with the lymph node size, shape, cortical appearance. In affected lymph nodes hyperechoic hilum is lost with change in length-breadth ratio.

In doubtful cases, or in fact all positive axillary lymph nodes, we have used FNAC to increase the sensitivity for staging.

CONCLUSION

1. Axillary dissection may be beneficial in disease control according to many studies, but it has many side effects like paresthesia, oedema, and the limit in shoulder movements.
2. So, doing an extensive procedure like axillary lymph node dissection may not be required in many patients, as they have no axillary nodes with metastasis.
3. Sentinel lymph node biopsy can greatly reduce the risks and morbidities associated with axillary dissection, because sentinel lymph nodes are the ones which are affected before other axillary lymph nodes are involved. So, if they do not contain any tumor deposits, the patient can be saved from axillary lymph node dissection.
4. But the sensitivity of frozen section, as seen in various studies is much below the routine histopathology which can sometimes understage a tumor.
5. Further, sentinel lymph nodes may be the only lymph nodes with deposits. We need techniques and studies to find patients, where sentinel lymph nodes are the only positive lymph nodes.

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