

Re: Predictive value of fine needle aspiration biopsy of axillary lymph nodes in preoperative breast cancer staging

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Axillary management in breast cancer has evolved tremendously in the last decades. Sentinel lymph node biopsy (SLNB) has replaced axillary dissection in patients without any clinical and radiological involvement in the axilla. Although the complication rate of SLNB is lower than axillary dissection, the search for an accurate method to determine the axillary status in breast cancer with even lower complication rate is continuing. Fine needle aspiration biopsy (FNAB) is performed under ultrasonography guidance in case of suspicious lymph nodes in the axilla, especially in those with cortical thickening or decreased echogenicity in the hilum in addition to changes in size and shape of the lymph node. The accuracy of FNAB in predicting the status of the axilla is investigated in recent studies. Fine needle aspiration biopsy of the axilla helps the clinician in determining surgical approach and neoadjuvant chemotherapy. Nowadays, extent of axillary surgery has almost no definitive role in deciding the mode of adjuvant treatment. Obtaining information about the presence of metastatic disease in the axilla is enough to determine the prognosis of the patient. However, 30% of axillary metastases were detected with FNAB under ultrasonography guidance and additional 30% with SLNB whereas the axillary status of the remaining patients were determined by histopathologic examination (1). In addition to the information about the axilla, FNAB enables us to place clips into the metastatic lymph nodes to follow the results of neoadjuvant treatment.

Akinci et al. investigated this topic in the article entitled "Predictive value of fine needle aspiration biopsy of axillary lymph nodes in preoperative breast cancer staging" (2). This study aimed to determine the role of ultrasound-guided FNAB in axillary staging. Sensitivity, specificity, positive and negative predictive value, and accuracy of FNAB were studied. Sensitivity and negative predictive value showed moderate values (60%) whereas specificity and positive predictive values were 100%. Overall accuracy of axillary FNAB was reported as 76.1%. These results are in accordance with the results of the previous studies. Sensitivity of FNAB under ultrasound guidance changes between 45-95% and the specificity is almost 100% (3, 4). Microbiopsies using larger needles and addition of immunohistochemical examination increase the sensitivity and presence of micrometastases in the lymph node contributes to the false negative results (5). Small number of patients included in the study may be its limitation, however, prospective design of the study supports the results with higher reliability. Finally, this study encourages the clinicians to utilize ultrasound-guided FNAB more frequently to avoid unnecessary SLNB in breast cancer.

As a conclusion, randomized controlled trials including large enough number of patients are required to establish the value of FNAB in axillary staging of breast cancer. Sentinel node vs. observation after axillary ultrasound (SOUND) trial is an ongoing prospective randomized trial comparing SLNB and no axillary surgery in patients with normal axillary ultrasound (6). If a high predictive power of FNAB for axillary lymph node metastases could be proven, SLNB might be replaced by this method in the future. Detection of axillary metastases with FNAB might avoid performing SLNB and frozen section study decreasing time spent during surgery and total expenses in treatment.

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