

## SLND: TARTIŞMALI KONULAR SENTINEL LYMPH NODE DISSECTION CONTROVERSIES

Funda Meriç Bernstam

**A**xillary lymph node dissection has been part of the standard of care for breast cancer management for many years. Axillary lymph node dissection allows for accurate staging of the breast cancer, allowing oncologists to identify whether lymph node metastases are present, and if so, the number of lymph nodes involved. In addition, axillary lymph node dissection also plays a critical role in achieving regional control. However, axillary lymph node dissection is limited by its procedural co-morbidities, including poor range of motion, paresthesias, and lymphedema. This has led to the idea of developing lymphatic mapping and sentinel node mapping as a first line diagnostic procedure. The sentinel node is the first node to receive drainage from a specific area of the breast, and therefore is thought to be the lymph node most likely to contain metastases, if metastases are present. Increasing experience with sentinel node biopsy technique clearly enhances identification rate, and leads to a drop in the false negative rate. Currently, in experienced hands, false negative rate is expected to be around 5%. In addition, sentinel node biopsy has now been definitively shown to reduce the morbidity of axillary staging, compared to that of actual lymph node dissection. Furthermore, in most patients with early breast cancer, sentinel node biopsy has been demonstrated to be an accurate

staging tool for the axilla, and now is considered standard of care in many institutions.

There are several controversies that remain, however, regarding sentinel node biopsy technique, as well as interpretation. Controversy remains regarding the best tracer to use, that of blue dye, radiocolloid, or both; however data seems to suggest that using dual agents for lymphatic mapping may decrease the false negative rate, especially in experienced hands. Other technical variations, including the location of injection, that of peritumoral, intradermal, intratumoral, subareolar injections. The data on this matter remains limited, although it is clear that the different injection sites do effect drainage pattern. Controversy also continues regarding the role of sentinel lymph node mapping in selective populations, including patients who have had prior breast and axillary surgery, prior radiation therapy, and patients who have recurrent breast cancer, patients who have multicentric disease, and patients who have had neoadjuvant chemotherapy management. Minimal tumor burden in the sentinel node, is also an area of active debate, as is the need for completion lymph node dissection after positive sentinel node. Although additional data is needed to resolve some of these debates, it is clear that sentinel node mapping is here to stay as the preferred axillary lymph node staging tool.