

Assessment of the solid-state gamma camera to depict axillary sentinel lymph nodes in breast cancer patients

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Purpose: The solid-state gamma camera is now commercially available offering the advantages of a compact and portable system, currently used mainly in the cardiac region. We evaluate the ability of the solid-state gamma camera to depict axillary sentinel lymph nodes (SLNs) in breast cancer patients. **Materials and Methods:** Preoperative SLN lymphoscintigraphy (LSG) was performed in 19 patients with breast cancer using the solid-state gamma camera. Immediately thereafter, we performed a second LSG using a single detector Anger-type gamma camera, and compared the findings from the two cameras. **Results:** Concordant results were obtained in 12 (63%) patients with both cameras. In 4 (21%) patients, axillary SLNs were correctly identified only with the solid-state gamma camera. In these patients, the distance between the SLN and the radiopharmaceutical injection site was closer than that of patients who had concordant results ($p = 0.001$). **Conclusion:** We can depict correctly axillary SLNs with the solid-state gamma camera in comparison with the Anger-type gamma camera. This technique would be useful for assessing SLNs in breast cancer patients.

Key words: breast cancer, sentinel lymph node, solid-state gamma camera