

Breast-Specific Gamma Imaging Proves Highly Sensitive for the Detection of Ductal Carcinoma In Situ

Study Results Presented Today at the RSNA shows BSGI to be Clinically Comparable but More Cost-Effective than MRI

Chicago, November 30, 2009 — Breast-Specific Gamma Imaging (BSGI) has been proven to be a highly sensitive imaging technique for the detection of ductal carcinoma in situ (DCIS), a difficult to diagnose breast cancer. BSGI is a molecular breast imaging technique that can see lesions independent of tissue density and discover very early stage cancers.

According to findings presented today at the annual meeting of the Radiological Society of North America (RSNA), BSGI is an effective adjunct imaging modality for the detection of DCIS with an overall sensitivity of 89.5 percent.

In the retrospective study, 55 women with 57 biopsy-proven DCIS lesions were included. patients had BSGI with the Dilon 6800 Gamma Camera with standard mammographic views. Image findings were compared to findings at biopsy or surgical excision. The sensitivity for the detection of DCIS were calculated and correlated with pathologic size of the DCIS. Of the 38 cases of biopsy-proven DCIS in 34 women, 89.5 percent were detected with BSGI. The findings indicate that the pathologic tumor size of the DCIS ranged from 0.1-3.1 centimeters in 33 cases. BSGI had sensitivity for 1 centimeter or small DCIS of 90.5 percent and can detect DCIS as small as 1 millimeter.

“The sensitivity of BSGI detection of DCIS is comparable to that reported for MRI detection of DCIS (87.9 percent and 92 percent). However, BSGI is more cost-effective than MRI, can be performed in all patients regardless of claustrophobia, renal insufficiency, metal/cardiac implants or patient weight,” said Dr. Rachel Brem, Director of Breast Imaging and Intervention at George Washington University Medical Center in Washington, D.C., and Vice Chair of the Department of Radiology.

The BSGI for the study was conducted at The George Washington University Medical Center in Washington, DC using a Dilon 6800 Gamma Camera, a high-resolution, small field-of-view gamma camera, optimized to perform BSGI. With BSGI, the patient receives a pharmaceutical tracing agent that is absorbed by all the cells in the body. Due to their increased rate of metabolic activity, cancerous cells in the breast absorb a greater amount of the tracing