Breast-Specific Gamma Imaging Available to Region, Helps Diagnose Cancers Earlier at Cellular Level

BY MARCELA BÖHM-VÉLEZ, M.D., FACR

A short seven months ago, Weinstein Imaging Associates introduced Breast-Specific Gamma Imaging (BSGI) to the tri-state region — and the results of the new technology have been exciting.

We are eager to spread the word to medical professionals and the community that BSGI is an advanced diagnostic test that helps to detect breast cancers and evaluate questionable findings on mammography or ultrasound.

Performed with the Dilon 6800 high-resolution Gamma Camera, BSGI is an effective "problem-solving tool," particularly when dense breast tissue is present. It is considered an ideal complement to mammography when additional assessment is needed.

Since summer 2007, we have used BSGI with 200 patients. In several cases, patients tested positive for breast cancer that was neither detected by mammography nor ultrasound. Because of BSGI, their cancers were diagnosed at an earlier and more curable stage. BSGI also relieved the anxiety of uncertainty for those who had normal BSGI tests.

We have many examples, but two typify our results:

WFMJ-TV Anchor-Reporter Susan DeLeo (left) traveled from Youngstown to Pittsburgh to interview Marcela Böhm-Vélez, M.D. FACR, of Weinstein Imaging Associates

Recent patient Dotti Bechtol, talks about the importance of new Breast-Specific Gamma Imaging to the tri-state region.

Patient Case #A, Resident of Pittsburgh: This patient had painful breasts. A recent mammogram showed no signs of cancer — just dense tissue that often limits the accuracy of mammography. Ultrasound also showed no signs of cancer. Unexpectedly, BSGI showed suspicious spots that proved to be cancer.

Patient Case #B, Resident of Pittsburgh: This patient's mammograms were difficult to read because of scar tissue and thickening from her past surgery and radiation treatments. She had supplemental BSGI testing, which provided normal results and a "sigh of relief that there were no cancerous cells in hidden areas."

Mammography primarily measures differences in tissue density, but because dense tissue and cancers often have the same color and structure on a mammogram, cancers may blend in with the normal surrounding tissue and be difficult to see. BSGI measures differences at the cellular level and is not affected by tissue density. It is also useful for patients who have scar tissue, breast implants or a palpable lump when a mammogram and ultrasound are normal.

The new molecular imaging technique has a high sensitivity for the detection of small breast cancers. In addition, it has infrequent false-positive results, which means that many surgical biopsies for benign conditions can be avoided.

When patients have a BSGI test, they receive a small amount of a tracing agent that is absorbed by all cells in their body. Because cancerous cells have higher metabolic activity, they absorb more of it and thereby show up as "hot spots" on the gamma camera pictures.

BSGI takes about 45-to-60 minutes to perform. Since tight compression of the breast is not necessary and patients are seated throughout the procedure, they generally find the exam to be comfortable. Although it is a relatively new test, most insurance companies already pay for BSGI.

Introduction of BSGI to the region is one of several Weinstein Imaging developments. We also began offering breast MRI and MRI-guided breast biopsies (through an affiliation with West Mifflin Imaging), digital mammography, 3D ultrasound, measurement and documentation of fetal nuchal translucency for early diagnosis of chromosomal abnormalities and filmless presentation of expectant-mother-and-child images on DVD/CDs.

Expanding our community-education efforts, we plan to meet with an increasing number of organizations and civic groups to inform members of new imaging technologies "beyond mammography" and emphasize the importance of early diagnosis.

Marcela Böhm-Vélez, M.D., FACR, is an internationally recognized radiologist and a managing partner at Weinstein Imaging Associates. For more information, visit weinsteinimaging.com.