Dual-head gamma camera increases ability to detect breast tumors not seen on mammography

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A dual-headed dedicated gamma camera used during molecular breast imaging (MBI) can accurately detect small breast tumors less than 2 cm in size, according to a study performed at the Mayo Clinic in Rochester, MN.

One-hundred fifty patients who had suspicious lesions smaller than 2 cm in size were imaged using dual-head molecular breast imaging. "There were 128 cancers confirmed in 88 patients," according to Carrie B. Hruska, MD, lead author of the study. "The sensitivity rate of dual-head MBI during the study was 90% (115/128)", she said.

"Dual head MBI involves a very light, pain-free compression of the breast. Two views of each breast are performed, lasting for about 10 minutes per view," said Dr. Hruska. "The patient receives an IV injection of a commonly used radiotracer and this tracer circulates throughout the body and is preferentially absorbed in the breast cancer," she said.

MBI is about the same cost as digital mammography. Although mammography works very well for most women, there are many women who could benefit from an additional test like dual head MBI that is both cost-effective and also has a good specificity (meaning it won't give a lot of false positive results). It would be useful for women who have very dense breasts on mammography or who are at an increased risk of

developing breast cancer," said Dr. Hruska.

"MBI is still in the research stages, but it is expected to become more widely available in the future," said Dr. Hruska.

Source: American Roentgen Ray Society