



Researchers at MD Anderson Show that Positron Emission Mammography (PEM) Helps Evaluate Early Response to Neoadjuvant Chemotherapy

SAN DIEGO, CA – May 26, 2010 – In a recent study presented at the American Association of Cancer Research Annual Meeting in Washington, DC, researchers at the University of Texas MD Anderson Cancer Center showed that Positron Emission Mammography (PEM) helps evaluate response to neoadjuvant chemotherapy.

PEM scanners are high-resolution breast PET systems that can show the location as well as the metabolic phase of a lesion. This information is critical in determining whether a lesion is malignant and influences the course of treatment. Other imaging systems, such as mammography and ultrasound, show only the location, not the metabolic phase. PEM scanners, which are about the size of an ultrasound system, are manufactured by Naviscan, Inc. and have been commercially available since 2007.

The prospective study, conducted by Dr. Wei Yang, Associate Professor of Radiology at the University of Texas MD Anderson Cancer Center in Houston, and her team found that PEM can help physicians at a very early stage decide if a patient is responding to neoadjuvant medical therapy, a cancer treatment in which a drug is given to a patient to reduce the size of a tumor prior to surgery.

The team enrolled 9 patients with HER2 over-expressing Inflammatory Breast Cancer (IBC) in a Phase II neoadjuvant trial of lapatinib for 14 days followed by chemotherapy. Baseline tumor measurements on mammography, sonography, PEM and PET/CT scans with serial biopsies were performed. PEM and biopsies were repeated at 14 days. Quantification of tumor activity known as PEM uptake value (PUV) were compared to standardized uptake value (SUV) for PET/CT pre- and post-lapatinib and correlated with tumor size and proliferation marker Ki67.

Results from this study showed significant early decrease in PUV as a functional response to targeted therapy suggesting that PEM can be used to evaluate early response to therapy.

“The high spatial resolution of PEM combined with functional quantification tools has the potential to assess tumor response early in the course of treatment,” said Dr. Yang, lead author on the study. “The ability to perform correlative studies that may help discover early on if targeted therapy is working or not will potentially save a patient from enduring the wrong type of neoadjuvant chemotherapy and enable a timely switch to the right one.”

Future peer-reviewed publication of these results will appear once surgical outcomes for these patients have been acquired.

About Naviscan, Inc.

Naviscan, Inc., founded in 1995, develops and markets compact, high-resolution PET scanners intended to provide organ-specific molecular imaging and guide radiological and surgical procedures. The Naviscan PET scanner is currently installed and available in breast and imaging centers throughout the U.S. and other parts of the world. The Company is headquartered in San Diego, California and is the first to obtain FDA clearance for a high-resolution PET scanner designed to image small body parts and for breast biopsy image guidance. For more information, call 1.858.587.3641 or visit www.naviscan.com.

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