MRI Aides Cancer Detection in the Opposite Breast of Women Newly Diagnosed with Breast Cancer

Study Conducted at Scottsdale Medical Imaging and Elsewhere Finds the Addition of MRI to Mammography and Clinical Breast Exam Doubles Number of Opposite Breast Cancers Detected at Initial Diagnosis

Scottsdale (Scottsdale Medical Imaging) — One in 10 women newly diagnosed with cancer in one breast will develop the disease in the opposite breast. These opposite (or contralateral) breast cancers often take years to diagnose, which leads to patient anxiety, a lower chance of successful treatment, and additional, often costly, procedures.

An American College of Radiology Imaging Network (ACRIN) study published in the March 29, 2007 issue of the *New England Journal of Medicine* establishes magnetic resonance imaging (MRI) as a key component of the diagnostic workup for women at the time of initial breast cancer diagnosis. The research, conducted at 25 institutions across the country, including Scottsdale Medical Imaging, found the addition of an MRI scan led to the detection of more than 90 percent of cancers in the opposite breast missed by mammography and clinical breast exam -- effectively doubling the number of cancers detected.

“We can now identify the vast majority of opposite breast cancers at the time of a woman’s initial diagnosis,” said Constance Lehman, M.D., Ph.D., principal investigator of the ACRIN breast MRI trial, professor of radiology and director of breast imaging at the University of Washington and the Seattle Cancer Care Alliance. “That means instead of those women having another cancer diagnosis years after their initial treatment, we can diagnose and treat those opposite breast cancers at the same time as the initial diagnosis.”

Supported by the National Cancer Institute (NCI), the ACRIN trial recruited 1,007 women (80 patients at Scottsdale Medical Imaging) and elsewhere who had a recent diagnosis in one breast and found that the added benefit of MRI was consistent—regardless of cancer type, age, and breast density. Also, the diversity of medical facilities participating in the trial that recruited patients—from academic institutions, community hospitals, and imaging centers—suggests that the results can be generalized to other practices.

-more-

Dr. Dan Maki, site principal investigator at Scottsdale Medical Imaging, said, “The MRI scan detected a variety of cancer types. In general, those cancers were at an earlier stage than cancers found in other types of exams, which is important because breast cancers detected at an earlier stage are often more treatable. We are pleased to have participated in research that will have an impact on the standard of care for women diagnosed with breast cancer.”

Researchers expect that if an MRI of the opposite breast is negative, women diagnosed with cancer in only one breast can more confidently opt against having a double mastectomy. “Although no imaging tool is perfect, if the MRI is negative, the chance of cancer in that breast is extremely low. A potential outcome that we would be delighted to see is fewer unnecessary bilateral mastectomies and fewer recurrences years after the initial cancer diagnosis," said Lehman.” The ACRIN trial also noted fewer “false positives,” or initial findings that later proved not to be cancer, than previous, smaller breast MRI studies had documented.

According to the NCI, in the United States breast cancer is the most commonly newly diagnosed non-skin cancer in women, and the second leading cause of cancer-related death in women. In the United States in 2007, an estimated 178,480 women will be diagnosed with breast cancer, and an estimated 40,460 women will die of the disease. “For most women,” Lehman added, “the fear of a second cancer and the fear of everything that goes with a second cancer diagnosis are quite high. We are hoping that breast MRI can improve our ability to enhance quality of life for women both at the time of the diagnosis and in the years following that diagnosis.”

Researchers are also optimistic that MRI may lead to long term savings to patients and to the health care system. The fact that MRI can detect most cancers in both breasts prior to therapy may result in fewer rounds of chemotherapy and fewer breast surgeries. According to Lehman, “In breast cancer detection, diagnosis, and treatment, clearly the greatest costs are in treatment. Our sense is that we will be able to reduce unnecessary procedures with the information obtained from the MRI.”

Constantine Gatsonis, PhD, the lead statistician for the trial and director of the Center for Statistical Sciences at Brown University, said, “The study establishes MRI as a key component of the diagnostic workup for women with breast cancer.” Gatsonis, a Brown professor of community health and applied mathematics, oversaw design of the MRI trial and led analysis of its results. Gatsonis offered a few caveats: The study showed that MRI is a good addition to – but not a replacement for – clinical breast exams and mammography. And not every woman with an abnormal mammogram should get

an MRI. He added, however, that the benefits were clear: "If my wife were diagnosed with breast cancer, I'd be sure that she got an MRI at the time of diagnosis."

###

For a Q&A on MRIs for contralateral breast cancer, please go to http://www.cancer.gov/newscenter/pressreleases/MRIContralateralQ&A.

Study information can be found at http://cancer.gov/clinicaltrials/ACRIN-6667

About SMIL

Founded 26 years ago, Scottsdale Medical Imaging (SMIL), affiliated with Southwest Diagnostic Imaging, Ltd., is the most respected radiology practice in the southwest and one of Arizona's largest. Owned and operated by 42 board-certified radiologists, SMIL has 11 imaging centers with more than 300 technologists and para-medical personnel providing expertise in a wide range of modalities and clinical areas including body imaging, MRI, CT, PET-CT, oncologic radiology, ultrasound and breast imaging. SMIL proudly sustains a cutting-edge research department that specializes in improving patient care and uncovering innovative techniques in the field of radiology. For more information, please visit www.esmil.com or call 480-425-5000.

About ACRIN

ACRIN is an NCI-sponsored and funded clinical trial cooperative group made up of investigators from over 100 academic and community-based facilities in the United States, and several abroad. ACRIN's mission is to conduct clinical trials of diagnostic imaging and image-guided therapy to aid the earlier diagnosis of cancer, allay the concerns of those who do not have cancer, and increase the length and quality of life for cancer patients. ACRIN is under the leadership of Network Chair Bruce J. Hillman, MD, and Constantine Gatsonis, Ph.D the Network Statistician. It is headquartered at the Philadelphia, PA, office of the American College of Radiology a national professional organization serving more than 32,000 diagnostic radiologists, radiation oncologists, interventional radiologists, nuclear medicine physicians, and medical physicists, and the ACRIN Biostatistics Center is located at Brown University in Providence, R.I. The NCI component of the ACRIN Cooperative Group is administered by the Cancer Imaging Program within NCI's Division of Cancer Treatment and Diagnosis. For more information visit www.acrin.org.