Radiologists Cite Studies to Support Regular Mammography Screening of Women Under 50

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CHICAGO--A pair of large-scale clinical investigations reported at the annual meeting of the Radiological Society of North America is renewing the controversy over the need to perform mammography in young women.

Data from the Screening Mammography Program of British Columbia (SMPBC) indicated that 15% of the cancers detected in 150,147 asymptomatic women who had a mammographic examination in a 5-year period were in women under age 50. Mammography detected cancer in an early, curable stage in approximately 87% of these women, and even found cancer in dense breast tissue. "It usually is more difficult to detect cancer in dense tissue than fatty tissue. However, we had increased cancer detection rates in young women with dense tissue because many of the cancers showed up as calcium deposits," said Linda Warren Burhenne, MD, executive director of the SMPBC, the largest mammographic screening program in North America.

28% of Cases Under Age 50

A 3-year study of 3,159 women who had breast biopsies at Thomas Jefferson University Hospital, Philadelphia, found that 28% of 851 women with breast cancer were under age 50, and 46% of the tumors detected in the younger women were nonpalpable. "Breast cancer tumors that are smaller, nonpalpable, and less aggressive histologically have better prognosis," said Emily Conant, MD, assistant professor of radiology, Thomas Jefferson University Hospital.

Based on the data from their studies, Drs. Warren Burhenne and Conant both advocate regular mass mammographic screening of young women. Although the incidence of breast cancer in British Columbia is higher than that in any of the other Canadian provinces, mortality from breast cancer is the lowest. "We believe this is occurring because nearly 40% of all the eligible women in British Columbia are having annual mammograms," Dr. Warren Burhenne said.

"If women [in the Pennsylvania study] had not had mammograms when they did, early cancers that are too small to be felt on physical examination would not have been detected," Dr. Conant pointed out. She and her colleagues at Thomas Jefferson University consequently advocate annual mammograms in the 40- to 49-year-old age group.

Stephen A. Feig, MD, director of breast imaging and professor of radiology, Thomas Jefferson University Hospital, noted that combined data from other recent clinical trials involving young women in the United States and Europe show that routine mammography can reduce mortality from breast cancer by 18%.

For that reason, Dr. Feig chastised the National Cancer Institute for failing to recommend mammographic screening of young women.

In 1993, the NCI chose not to urge mammography for women in the 40- to 49-year age group because no randomized, controlled investigations provided clear evidence that regular mammography reduced mortality.

A statement released by Daniel B. Kopans, MD, director of breast imaging, Massachusetts General Hospital, and associate professor of radiology, Harvard Medical School, emphasized that none of the clinical trials of breast cancer have been designed for or conducted on women in the 40- to 49-year-old age group.

"In order to be able to 'prove' the expected mortality reduction of 25% to 30% among women ages 40 to 49, with 'statistical significance,' a randomized, controlled trial would have to include almost 500,000 women in this age group. All of the world's trials put together have involved fewer than
170,000 women in this age group," Dr. Kopans wrote. "The 'perfect' trial therefore," Dr. Feig said, "would take 15 years, and in the meantime, thousands of women will die." Statistics show that one of every four deaths from breast cancer occurs in women younger than age 49. In addition, 40% of all the years of life lost because of breast cancer involve women younger than age 50, Dr. Feig said.

Mammographic screening of older women every 2 years has increased the rate at which breast cancer is detected in its early stages, and it has reduced the number of deaths from breast cancer. "Screening younger women every year should have an equal effect," Dr. Feig commented. Added Dr. Warren Burhenne, "There is no authority in the world that would disagree that early detection of breast cancer leads to better outcomes."

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