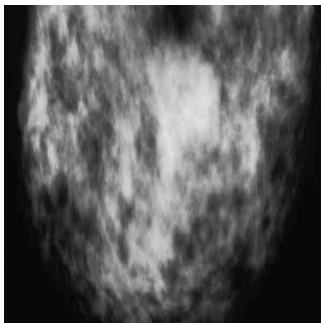


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## #RSNA 14: Screening Dense Breasts: Connecticut Experience



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As Connecticut was the first state in the USA to enact breast density legislation in 2009, radiologists there have had the opportunity to study the effects of adding screening breast ultrasound in women with dense breast tissue. Jean Weigert, MD, Hartford Healthcare, outlined results from year 3 and 4 (2012 and 2013) following the legislation coming into force. The study aimed to determine if the breast cancer detection rate and improved positive predictive value (PPV) continue to improve. While the positive predictive value has improved, only a third of eligible women taken up additional screening, likely due to insurance and cost issues, according to Weigert.

The researchers collected data from two practices with five sites in Connecticut. In years 3 and 4 of the study the results were:

Year 3: 32,230 screening mammograms, 4128 screening ultrasounds. Of these 3819 cases were BIRADS 1 or 2, 168 were BIRADS 3, and 148 were BIRADS 4 or 5, of which 13 had a positive biopsy.

Year 4: 27,937 screening mammograms, 3331 screening ultrasounds, 2889 BIRADS 1 or 2, 358 BIRADS 3, 53 BIRADS 4 or 5 of which 11 had a positive biopsy.

For year 3 the positive predictive value was 8.1%, cancers per thousand were 3.2 and the percentage of eligible women having the study was 32%. For year 4, the positive predictive value was 14.2%, there were 3.3 cancers per thousand, and 28% of eligible women were having the study. Weigert observed that by year 4 they were no longer performing biopsies for things that did not need to be biopsied. Around 30% of women eligible for adjunct screening come for testing. Weigert suggested that this may be due to lack of awareness, but more likely is due to cost and insurance issues.

Concluded Weigert, screening breast ultrasound in women with mammographically dense breast tissue (more than 50% of the screening population) does find occult cancers. Their research has shown that this has continued at the same rate per thousand over the first four years since the breast density inform legislation was enacted in Connecticut. The positive predictive value has improved, demonstrating that there is a learning curve in deciding which lesions to follow and which to biopsy. Cancers are found in women having yearly ultrasonography. Higher grade tumours are the lesions more likely to have positive sentinel nodes. There is no association of risk factors other than dense breasts in this group of patients. There has been a progressive decrease in the size of lesions detected with the largest lesions in Year 1, and average size is currently less than 1cm. Women having repeat ultrasound are now having cancers diagnosed indicating that in this patient population this test should be part of their routine yearly screening procedure.

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Image source: Wikimedia Commons

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