

Supplemental ultrasonography for breast cancer screening



For breast cancer screening, adding whole-breast ultrasonography to mammography compared with mammography alone might not yield substantial benefits when associated harms are considered, according to a recent study.

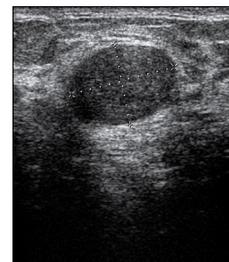
Janie Lee (University of Washington, Seattle, WA, USA) and colleagues did a retrospective study using data from two Breast Cancer Surveillance Consortium registries (Vermont Breast Cancer Surveillance System and San Francisco Mammography Registry) collected between Jan, 1, 2000, and Dec 31, 2013. 6081 examinations including mammography plus same-day ultrasonography in 3386 women were included and matched (1:5) to 30 062 mammography-only examinations in 15 176 women. The authors estimated propensity scores for both screening modalities based on patient characteristics.

Women who had mammography plus ultrasonography screening, when compared with those who received mammography alone, were more likely to have dense breasts (4317 [74%] of 5810 vs 39 928 [36%] of 111 306), be <50 years (3022 [50%] of 6081 vs 16 897 [32%] of 112 462), and have a family history of breast cancer (2595 [43%] of 6055 vs 16 897 [15%] of 112 462). Cancer detection frequency was similar between both screening modalities (5.4 [95% CI 3.9–7.6] vs 5.5 [4.7–6.4] per 1000 screens; adjusted relative risk [RR] 1.14; 95% CI 0.76–1.68), as was false-negative frequency (1.5 [0.8–2.8] vs 1.9 [1.4–2.4] per 1000 screens; RR 0.67; 95% CI 0.33–1.37). False-positive biopsy increased with the combined screening approach (52.0 [95% CI 46.7–57.8] vs 22.2 [20.6–24.0] per 1000 screens; RR 2.23; 95% CI 1.93–2.58) and the positive predictive

value for biopsy recommendations decreased (9.5% [6.8–13.1] vs 21.4% [19.6–23.5]; RR 0.50; 0.35–0.71).

“Women should be informed of the additional potential harms of supplemental ultrasound when deciding on whether or not to have supplemental screening,” comments co-author Karla Kerlikowske (University of California, San Francisco, CA, USA). Nehmat Houssami (University of Sydney, Sydney, Australia) added: “Overall there is limited evidence that supplemental breast imaging for population screening reduces breast cancer mortality.” However, according to Wendie Berg (University of Pittsburgh School of Medicine, Pittsburgh, PA, USA), “one cannot simply ‘flip a switch’ and start offering screening ultrasound without specific training and experience requirements.”

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For the study by Lee and colleagues see *JAMA Intern Med* 2019; published online March 18. DOI:10.1001/jamainternmed.2018.8372