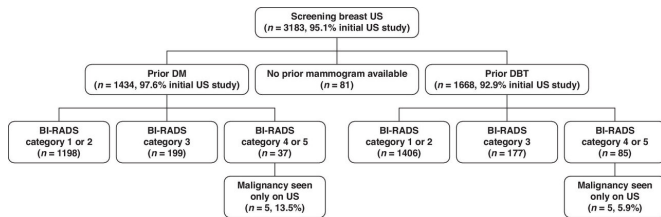


Ultrasound yields similar cancer detection rates after digital mammography, tomosynthesis

27 September 2019



US = ultrasound, DM = digital mammography, DBT = digital breast tomosynthesis. Credit: *American Journal of Roentgenology (AJR)*

An ahead-of-print article in the December issue of the *American Journal of Roentgenology (AJR)* comparing dense breast ultrasound (US) screening after digital mammography (DM) versus after digital breast tomosynthesis (DBT) yielded "no significant difference" in additional cancer detection rate.

Lead investigator Elizabeth H. Dibble of Brown University and colleagues retrospectively searched databases at two tertiary breast imaging centers and an office practice, focusing on 3183 [screening](#) breast US examinations performed from October 2014 to September 2016—1434 (45.1%) after DM and 1668 (52.4%) after DBT.

Of these 3183 examinations, 81 (2.5%) had no prior mammogram available. Of the 122 DM and DBT patients for whom biopsy or cyst aspiration was recommended—all BI-RADS assessment category 4 or 5 studies—118 (96.7%) had biopsy or cyst aspiration results available.

Of the 36 biopsies or aspirations after DM, 6 (16.7%) were malignant, and 30 (83.3%) were benign. Of the 82 biopsies or aspirations after DBT, 11 (13.4%) were malignant, and 71 (86.6%)

were benign ($p = 0.8583$).

Overall, the additional cancer detection rate by US after DM was 5/1434, or 3.5 per 1000 women screened; after DBT, the detection rate was 5/1668, or 3.0 per 1000 women screened ($p = 0.9999$).

Dibble concluded: "DBT does not obviate additional US screening in women with dense breast tissue. No evidence was found of a difference in additional cancer detection rate with screening US after DM versus after DBT. Knowing that the cancer yield of screening US is similar after DBT versus DM may help inform [clinical practice](#), because questions about whether DBT is sufficient screening for women with dense [breast](#) tissue."

More information: Elizabeth H. Dibble et al, Dense Breast Ultrasound Screening After Digital Mammography Versus After Digital Breast Tomosynthesis, *American Journal of Roentgenology* (2019). [DOI: 10.2214/AJR.18.20748](#)

Provided by American Roentgen Ray Society

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