
OBJECTIVE: To examine the recall rates from screening mammography in women undergoing digital breast tomosynthesis (DBT) with 2D mammography compared to those undergoing 2D mammography alone in the first 2 months of introducing DBT at our breast center.

METHOD AND MATERIALS: DBT was introduced in early August 2011 and offered to all women presenting for screening mammography at our breast center. Routine (2D) screening mammography was also performed at three satellite facilities in addition to the hospital, all using Hologic Selenia digital mammography units. Screening mammograms were all batch read by dedicated breast imagers. Using a mammography software auditing system database, the recall rate of women undergoing 2D mammography at the four sites was compared to the recall rate of the women undergoing DBT and 2D mammography during this initial period. The mammographic abnormalities as the source of the recall were compared in the two groups.

RESULTS: A total of 1799 screening mammograms were interpreted during the time period: 324 (DBT and 2D mammography) and 1475 (2D mammography). The overall recall rate was 10.6% (191/1799). The recall rate for DBT and 2D mammography was 4.9% (16/324) and that of 2D mammography was 11.9% (175/1475). This difference is statistically significant (p < 0.0001). Similar recall rates for calcifications (2.1% vs 3.9%, p = 0.25) and masses (1.5% vs 2.7%, p = 0.14) were seen in the two groups (DBT and 2D mammography vs 2D mammography, respectively), but the differences were not statistically significant. However, the recall rate of asymmetries was significantly lower with DBT and 2D mammography than 2D alone (1.8% vs 8.2%, p < 0.0001).

CONCLUSION: DBT and 2D mammography significantly reduce recall rates of screening mammography, and this effect can be seen immediately upon introduction of the new technology. The greatest reduction was found in the recall of asymmetries, suggesting that the majority can be confidently assessed as normal tissue on the DBT images.

This abstract is also available at: http://www.ajronline.org/content/198/5_Supplement/198_5_Supplement_176.full?sid=b5549ec5-a0b4-4320-9c4a-828920130d50