Elastography and color doppler improve breast ultrasound
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The combination of elastography and color Doppler ultrasonography (US) with B-mode US in women with dense breasts can increase the positive predictive value of screening and reduce the number of false-positives, according to a study published in the November issue of Radiology.

Su Hyun Lee, M.D., from Seoul National University Hospital in Korea, and colleagues investigated the value of the combined use of elastography and color Doppler US with B-mode US for evaluation of screening US-detected breast masses in 1,021 women (median age, 45 years) with dense breasts. The prospective, multicenter study included asymptomatic women who were referred for screening US between November 2013 and December 2014. Eligible women had a newly detected breast mass at conventional B-mode screening, for which color Doppler US and elastography were performed.

The researchers found that 68 masses were malignant (56 invasive). The addition of elastography and color Doppler US to B-mode US increased the area under the receiver operating characteristic curve from 0.87 to 0.96 (P < 0.001). In addition, the positive predictive value (PPV) increased from 8.9 to 23.2 percent (P < 0.001).

"Addition of elastography and color Doppler US to B-mode US can increase the PPV of screening US in women with dense breasts while reducing the number of false-positive findings without missing cancers," conclude the authors.

More information: Abstract/Full Text (subscription may be required)

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