Cancer Prevention Research

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COMMENTARY

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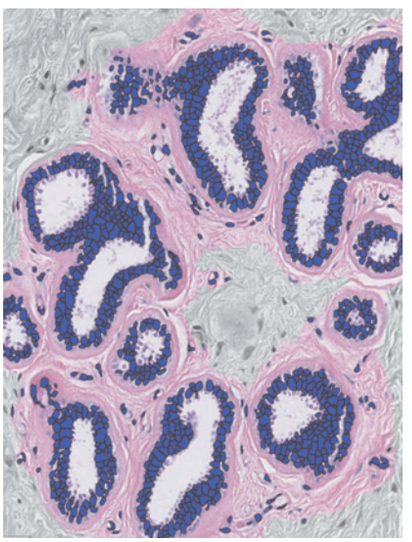
ABOUT THE COVER

Delayed terminal duct lobular unit (TDLU) involution, a histological marker, and elevated mammographic breast density (MD) of the breast, a radiological marker, are correlated with each other and are independent breast cancer risk factors among women with benign breast disease (BBD). Previously, a digital pathology automated assessment tool that quantified epithelial nuclear density (END) in normal breast tissue showed that END was inversely correlated to visually assessed TDLU involution. In the current study (beginning on page 861), Mullooly and colleagues examined associations of END, TDLU involution, and MD in diagnostic biopsies yielding BBD. They found that TDLU measures were positively associated with increasing END tertiles. The results also showed that END was significantly associated with localized MD surrounding the biopsy region, but not with global MD. These findings suggest that complementary information may be gained by examining END compared to the histological information captured by visual TDLU and radiological MD measures, and they merit continued evaluation in assessing cellularity of breast parenchyma to understand BBD etiology. The cover image depicts the application of the digital pathology algorithm to the epithelial area of an image-guided breast biopsy whole slide image, to estimate END from a Breast Radiology Evaluation and Study of Tissues (BREAST)–Stamp Project participant diagnosed with BBD.



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