

Managing architectural distortion on mammography based on MR enhancement

May 5 2019

High negative predictive values (NPV) in mammography architectural distortion (AD) without ultrasonographic (US) correlate or magnetic resonance imaging (MRI) enhancement suggests follow-up rather than biopsy may be safely performed, according to a study to be presented at the ARRS 2019 Annual Meeting, set for May 5-10 in Honolulu, HI.

Management of MG-detected AD varies among practices when tomosynthesis-guided biopsy is not available. The study was conducted to evaluate outcomes of architectural distortion on mammography (MG) with or without a [magnetic resonance](#) (MR) correlate.

Unexplained AD on MG cases with subsequent MR were retrospectively reviewed by MG type, biopsy type and [cancer](#) results, cancer type, tumor grade, and receptor status. Among the study group of 57 patients, the NPV of MG AD without MR correlate or enhancement was 97.2%. Forty-four of 57 had MG AD without US correlate. Of 12 patients without US but with MR correlate, cancers (25%) were masses on MR, majority of benign findings (58.3%) were nonmass enhancement (NME), and RS/CSL (41.7%) was mass or NME. No MG AD without US or MR correlate was found to be cancer. The NPV of MG AD without US or MR correlate or enhancement was 100%.

The results indicate that follow-up rather than biopsy may be safely performed in cases of MG AD without US and MRI correlate or enhancement, reducing the need for intervention and lowering healthcare costs.

"With 3-D tomosynthesis widely incorporated in many practices, MG AD without US or MRI correlate poses a management dilemma to radiologists," author of the study Vandana Dialani, MD said. "This study is especially important for institutions which do not have tomo-guided biopsy capabilities and may revert to contrast imaging as a next step in managing MG AD. Our study shows that the NPV of MG AD without US correlate or MR enhancement was 100% and follow-up rather than [biopsy](#) may be considered."

More information: www.arrs.org/am19

Provided by American Roentgen Ray Society

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