Review of: "Quantification of dynamic contrast-enhanced ultrasound (CEUS) in non-cystic breast lesions using external perfusion software"

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Using dynamic contrast-enhanced ultrasound CEUS) and quantified perfusion (time-intensity curve, TIC) analysis, the authors analyzed 24 breast lesions in patients with genetically identified higher lifetime risk for breast cancer. The authors demonstrated different perfusion features in the surrounding tissue of malignant benign lesions, but not in the tumors themselves. The content of the article was of interest, and the data presentation was concise. There are many limitations since the study is pilot. However, along with the utility of CEUS in breast cancer screening, the authors clearly described these limitations in the Discussion. Below are my comments.

Comment #1
All patients underwent dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI) before the study entry. However, the authors did not present the data on TIC analysis of DCE-MRI in each group. Comparing the TIC analysis between CEUS and DCE-MRI could be much more informative for readers.

Comment #2
The authors exhibited that differences of some of the TIC parameters in the "surrounding tissue" were statistically significant among malignant and benign lesions. However, the authors did not clearly define the surrounding tissue as regions of interest (ROI). For example, how far away from the limbus of the tumor does it mean? Is this an originally defined ROI? These ambiguities could affect the statistical results of TIC analysis between the groups.