SenoGram®
Artificial Intelligence Tool

Imagio® Breast Imaging System – A New Hybrid Modality to Improve the Breast Cancer Diagnostic Process

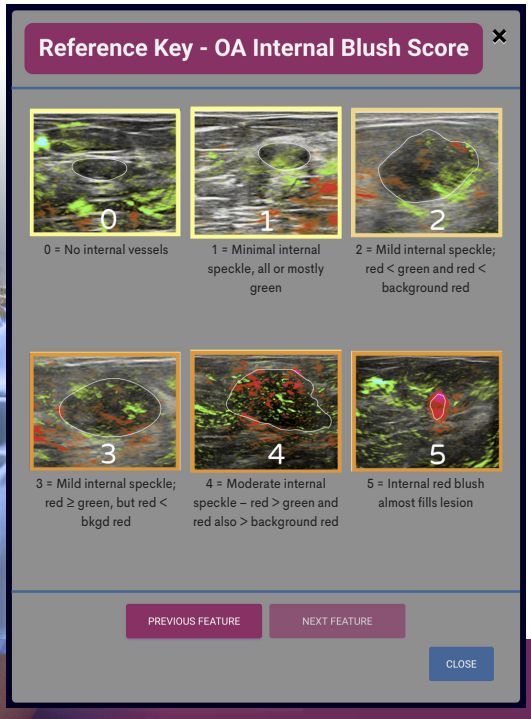
Seno Medical's artificial intelligence (AI) tool, called SenoGram®, provides clinical decision support to the radiologist for reading of images from the Imagio® Breast Imaging System.

The Imagio® Breast Imaging System combines laser light and sound with conventional ultrasound technology to provide real time fused functional and anatomical images of the breast (referred to as opto-acoustics interleaved with ultrasound or OA/US), increasing confidence in diagnostic accuracy.

Seno's Imagio® System provides this complete picture of a breast mass through its data capture and additionally supports the breast imager's evaluation of the information presented to objectively assign a diagnostic BI-RADS by using the SenoGram®.

A Digital Assistant

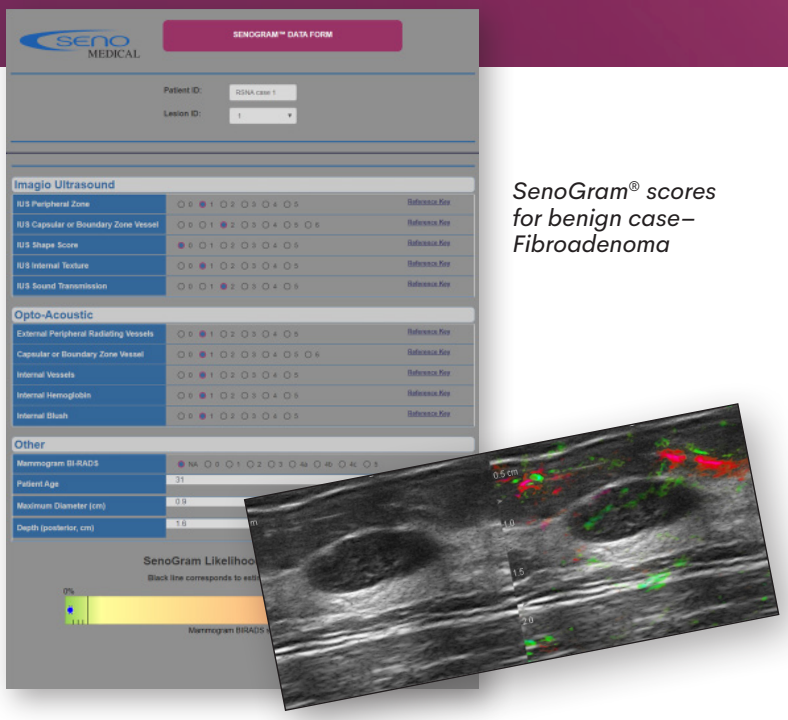
SenoGram®, only available with the Imagio® System, aids the radiologist's efficiency by providing image reference keys to facilitate more accurate assignment of ultrasound and OA/US feature scores. Additionally, the SenoGram® helps to objectively and precisely translate Imagio® ultrasound and OA/US feature scores (together with four other clinical features) into a Likelihood Of Malignancy (LOM), improving what breast imagers can achieve with their subjective assignments of LOM alone.



Reference keys are provided for each internal and external OA/US attribute, to aid the radiologist in assigning individual feature scores.

The Need for SenoGram®

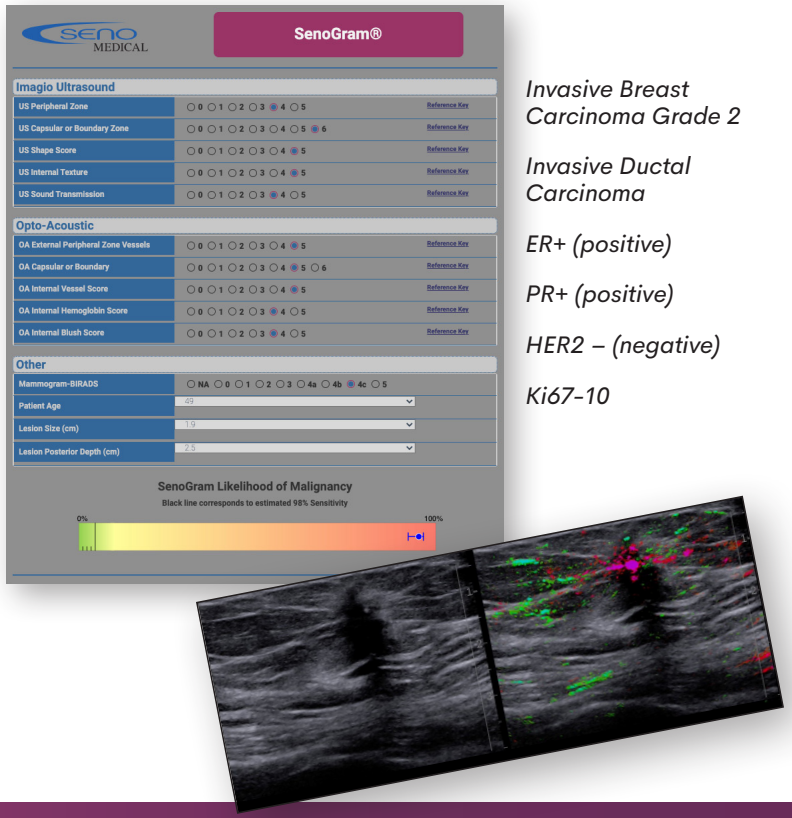
- Information Overload – Many different features affect the LOM, making it difficult to assess their interaction and impact. This difficulty can lead to problems with overall LOM assessment. The SenoGram® easily combines 15 different features in estimating LOM.
- Overcoming Discordances – Discordant imaging features occur commonly in breast masses. For example, features of grade III and grade I invasive cancers are often opposite each other. Triple negative and luminal A invasive breast cancers also frequently show opposite features. Breast imagers can have difficulty dealing with such discordances. AI, machine learning, and the SenoGram® are not confused by such discordances.



SenoGram® scores for benign case– Fibroadenoma

Clinically Efficacious

In a multi-reader, in-house Feasibility Study, readers were more accurate in distinguishing benign from malignant masses when using the SenoGram® estimated LOM than they were with the subjective LOM assignments. The readers achieved higher specificity at 98% sensitivity with SenoGram® decision support, than they were able to achieve with their subjective LOM assessments. The readers were also more confident in their assignments of LOM and subsequently in their assignments of BI-RADS categories with the SenoGram® clinical decision support, than they were without the support of the SenoGram®.



Invasive Breast Carcinoma Grade 2

Invasive Ductal Carcinoma

ER+ (positive)

PR+ (positive)

HER2 – (negative)

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SENO MEDICAL®

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For more information about the Imagio® Breast Imaging System with SenoGram® artificial intelligence, please contact Sales & Marketing at (210) 615-6501

BRINGING NEW LIGHT TO DIAGNOSTIC CONFIDENCE.™

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