



# Breast Ultrasound – Artificial Intelligence Decision Support on Lesion Assessment

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Artificial Intelligence (AI) is a combination of Big Data with fast interactive processing and intelligent algorithms. We all used CAD, early AI or traditional machine learning. Deep learning is far more sophisticated, with capabilities of detecting patterns beyond human recognition.

Koios Medical’s Decision Support breast assistant is an AI application deployed directly on an ultrasound system (LOGIQ™ E10 in our case). It automatically provides a risk assessment that aligns to a BI-RADS category and is approved by the FDA as a second opinion tool for image classification.

A multicentre retrospective review demonstrated that it improves accuracy of sonographic breast lesion assessment, while reducing inter- and intra- observer variability

The actual proposed method was to combine the AI with human radiologists to improve performance. Among the obstacles which needed to be addressed were the lack of guidelines and the “black box” problem.

Future perspective may include more sophisticated analysis of breast nodules and integration of multimodality breast imaging with AI.

## NOTES

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The statements by GE’s customers described here are based on their own opinions and on results that were achieved in the customer’s unique setting. Since there is no “typical” hospital and many variables exist, i.e. hospital size, case mix, etc.. there can be no guarantee that other customers will achieve the same results.