HOLOGIC®
The Science of Sure

Selected Scientific Publications on **Contrast-Enhanced Digital Mammography**

The Future of Contrast-Enhanced Mammography
Covington MF, et al, AJR Feb 2018.

Conclusion: Contrast Enhanced Mammography (CEM), when compared to breast MRI, permits fast contrast imaging with lower costs, imaging and interpretation times.

Potential Cost Savings of Contrast-Enhanced Digital Mammography.
Patel BK., et al, AJR Apr 2017.

Conclusion: This study looks at both the efficacy of CEDM compared to BMRI, but also goes into the cost implications for both patient and institution. The author considers capital purchase, equipment, staffing and other costs related to both types of exams. CEDM is considered as a cost-effective modality and a realistic substitute for the more costly breast MRI.

Contrast-enhanced spectral mammography (CESM) versus breast magnetic resonance imaging (MRI): A retrospective comparison in 66 breast lesions.
Li L., et al, Diagnostic and Interventional imaging Feb 2017.

Conclusion: CESM, compared to BMRI, has a higher PPV, less background enhancement, and similar sensitivity in detecting breast cancer. With its shorter exam time and more accessible than BMRI, CESM has the potential to be an important tool in detection and staging of breast cancer.

Diagnostic Value of Contrast-Enhanced Spectral Mammography in Comparison to Magnetic Resonance Imaging in Breast Lesions.
Xing D., et al, J Comput Assist Tomogr. Mar/Apr 2019.

Conclusion: Results of the study demonstrated that for breast cancer detection, CEDM has better accuracy, specificity, and false-positive rates than MRI.

Mammography: an update of the EUSOBI recommendations on information for women.
Sardanelli F., et al, Insights Imaging Feb 2017.

Conclusion: CESM provides useful information of suspicious lesions, increasing the visibility of malignant lesions, in particular in women with dense breasts, and can be an alternative to contrast-enhanced MRI, especially in the case of contraindications to MRI or to gadolinium-based contrast injection as well as of difficult MRI availability.

Comparison of the Mammography, Contrast-Enhanced Spectral Mammography and Ultrasonography in a Group of 116 patients.
Łuczyńska E., et al, Anticancer Research Aug 2016.

Conclusion: CESM permitted better detection of malignant lesions than both MG and US read individually. CESM found lesion enhancement in some benign lesions as well, yielding a rate of false-positive diagnoses similar to that of MG and US.

Workflow Considerations for Incorporation of Contrast-Enhanced Spectral Mammography Into a Breast Imaging Practice.
Phillips J, et al, J Am Coll Radiol. Mar 2018.

Conclusion: Assessed and compared the workflow of CESM, DM, MRI and CT from patient preparation to examination to post examination. The author outlined timing challenges if done.

Contrast-enhanced spectral mammography (CESM) versus MRI in the high-risk screening setting: patient preferences and attitudes.
Phillips J, et al, Clin Imaging. Mar - Apr 2017.

Conclusion: The prospective study, with high risk patients, reviewed their exams of BMRI and CESM. Seventy-nine percent (79%) of the patients preferred CESM over MRI and 89% would be agreeable to having CESM as an annual screening.

Contrast-enhanced Digital Mammography: A Single-Institution Experience of the First 208 Cases.

Lewis TC, et al, Breast J. Oct 2016.

Conclusion: Given its success in recent studies and the experience of CEDM primarily as a diagnostic adjunct, CEDM can potentially improve breast cancer detection by combining the low-cost conclusions of screening mammography with the high sensitivity of magnetic resonance imaging.

Contrast-enhanced spectral mammography improves diagnostic accuracy in the symptomatic setting

Tennant S.L., et al, Clinical Radiology Nov 2016.

Conclusion: CESM provides immediately available, clinically useful information in the clinic for patients with suspicious palpable abnormalities. Radiologist sensitivity, specificity, and size accuracy for breast cancer detection and staging are all improved using CESM as the primary mammographic investigation.

Evaluation of contrast-enhanced digital mammography.

Diekmann F., et al, European Journal of Radiology Apr 2011.

Conclusion: The addition of dynamic digital subtraction mammography to conventional mammography can significantly improve diagnostic quality. The increased sensitivity is particularly pronounced in the case of dense breast tissue.

Contrast-enhanced spectral mammography as work-up tool in patients recalled from breast cancer screening has low risks and might hold clinical benefits.

Houben I.P.L., et al, European Journal of Radiology Sep 2017.

Conclusion: The authors recommend using CESM as a work-up tool for women recalled from screening, because it carries low risk for the patient, while additionally detecting tumour foci might hold important clinical implications.

ASO Author Reflections: Role of Contrast-Enhanced Spectral Mammography in the Assessment of Residual Breast Cancer After Neoadjuvant Systemic Therapy.

Hilal T, Patel BK., Ann Surg Oncol. Dec 2018.

Conclusion: When assessing residual breast cancer after neoadjuvant systemic therapy, the accuracy of CESM is comparable to bMRI.

Role of contrast enhanced spectral mammography in predicting pathological response of locally advanced breast cancer post neo-adjuvant chemotherapy.

Noha Abd ElShafy ElSaid, et al, The Egyptian Journal of Radiology and Nuclear Medicine, June 2017.

Conclusion: CESM can be a clinical method for assessment of the pathological response post NAC which aids in surgical planning.

*A full list of Contrast Bibliography is available on Hologic® website https://hologiced.com/library/contrast-enhanced-mammography-selected-bibliography-pdf/

HOLOGIC®
The Science of Sure