

Patient Management Decisions - Contrast-Enhanced Mammography and Extent of Disease

Prof. Maha H. Helal, MD & Prof. Rasha M. Kamal, MD

Women with non- metastatic breast cancer undergo surgery as part of their treatment. There are different types of breast surgery including two main approaches: breast-conserving surgery or mastectomy. The choice of surgery depends on the size of the index lesion, on the presence or absence of additional foci and on the stage of the disease. Therefore, it is necessary to accurately determine the extent of the index cancer and to detect any additional ipsilateral or contralateral lesions to accurately guide treatment.

Contrast-enhanced breast MRI has long been the gold-standard imaging for the preoperative local staging of breast cancer as it has shown high accuracy in the detection of the size of the index lesion as well as multifocal, multicentric, and contralateral disease. However, limitations of breast MRI include its high-cost, limited accessibility, and other MRI contraindications.

Prior literature shows that CESM is a good alternative to MRI as they both combine enhanced morphology assessment together with providing functional information through the injection of contrast media. CESM improves the sensitivity for breast cancer detection without a decreased specificity as it provides higher contrast and better lesion delineation than mammography. The published literature has proved that CESM has shown comparable accuracy to MRI in the assessment of the extent of disease as it allows accurate evaluation of lesion size and multiplicity.

In this lecture, we will highlight the additive role of contrast-enhanced spectral mammography in the preoperative staging and in adjusting the surgical treatment planning in breast cancer patients. We will also discuss whether CEDM can effectively replace MRI in this context as a means to save health care resources with an improved patient outcome.

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