

## Radiology 2018: MRI-guided breast biopsy and breast cancer: Basics and cases- Laila Abu Tahoun- King Hussein Cancer Center

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**B**reast MRI plays an essential role in early detection, diagnosis and treatment of breast cancer. The development of MR-guided breast biopsy has enhanced the value and acceptance of breast MRI as part of multimodality breast imaging. Technique of Breast MRI includes multiplanar imaging of both breasts before and after intravenous contrast administration. Indication for breast MRI include screening for high-risk women, contralateral breast screening and assessment of disease extent including chest wall invasion in newly diagnosed breast cancer cases, post neoadjuvant chemotherapy, post lumpectomy with positive margin, breast evaluation in axillary adenopathy with unknown primary, better lesion characterizations and evaluation of breast implants. Findings on Breast MRI include focus or foci, non-mass enhancement and masses. These are catego-

rized using the ACR BIRADS based on their features and enhancement patterns. Work up of suspicious MR findings includes focused ultrasound and magnification views and biopsy accordingly. Indications for MR- guided breast biopsy include all BI RADS 4 and 5 suspicious finding with no correlate on ultrasound or magnification views. Using MR- guided vacuum-assisted biopsy we diagnosed small breast cancer less than 1 cm and ductal carcinoma in situ in treated breast cancer patients on surveillance and in screened women. We also diagnosed contralateral breast malignancy at time of staging workup and residual after lumpectomy. MR-guided breast biopsy has enabled the diagnosis of small and early breast cancer in different phases of patient care including screening, staging workup and surveillance of breast cancer patients.

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