

## **THE ROLE OF MRI IN THE EVALUATION OF COMPROMISED SURGICAL MARGINS AND POSTOPERATIVE RESIDUAL DISEASE OF BREAST CANCER**

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**BACKGROUND:** Magnetic resonance imaging of the breasts (RMM) is presented as well as more sensitive method in the evaluation of tumor extension and identifying additional focuses on cancer staging is a promising method to identify the extent of residual disease (RD) in patients with positive margins in planning the intervention.

**HYPOTHESIS:** Patients with breast cancer that have compromised surgical margins in the pathological analysis, generally require be reabordadas. The main purposes of RMM in the analysis of breast cancer is to detect the presence of multifocal and multicentric disease, extent of disease, additional injury identification, chest wall involvement and extension skin and areolopapilar complex, but is presented as a promising method, of mammography and ultrasound in detecting the DR site and extension of the same after surgical treatment, influencing the choice of surgical re-excision or mastectomy. Factors affecting the RMM in evaluating the DR are fibrocystic changes and post-surgical (architectural distortion resulting from surgery, residual hematoma and granulation tissue / inflammatory) that can obscure or resemble malignancy. Findings relating to neoplasms as ductal carcinoma in situ low-grade carcinoma and invasive lobular carcinoma as reduced neoangiogenesis and tenuous enhancement, can generate false negatives. The analysis is no need for careful assessment of the RMM on the basis of morphology and kinetic characteristics of the lesions. Highlight irregular, nodular, thick (> 0.5 cm) and discontinuous pericatricial; abnormal enhancement of tissue around the surgical site (up to 2 cm); no mass enhancement of regional distribution, targeting and ductal are related to the presence of macroscopic DR. Lack consensus about the optimal time interval between surgery and RMM. Studies show greater specificity in evaluation between 28 and 35 days after surgery. The specificity and the negative predictive value in relation to the increase of surgery time interval, but even in the early post operative period, the DR macroscopic can be identified. There are no criteria to determine which patients may be spared of a new surgical approach, since being detected microscopic DR on the banks becomes necessary surgical intervention, even if the results are negative MMR. Furthermore the presence of DR confers increased risk of local recurrence of about 32 to 63%.

**METHODS:** We show cases of patients diagnosed with breast cancer detection surgical margins compromised by pathological analysis and demonstrates further evaluation of advantages with the RMM. The most illustrative imaging findings of the cases are presented, along with clinical and pathological data.

RESULTS: Although the RMM still presents limitations related to inflammatory / healing process by the overlap of imaging findings of benign and malignant diseases, it is a promising and useful method in DR evaluation after excision of breast cancer and determination of previous findings surgical rapprochement .