

<https://doi.org/10.29289/259453942021V31S2110>

EVALUATION OF TECHNICAL PARAMETERS FOR BREAST STUDY BY MAGNETIC RESONANCE

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Objective: To evaluate technical adjustment parameters for the breast magnetic resonance protocol. **Methodology:** Prospective study, of a “pilot test” type, with qualitative tests in three volunteers (A, B, and C) who had different types of breasts (heterogeneous, adipose, and dense), respectively, without a clinical history of breast disease. The test examinations (X, Y, and Z) were performed in coils of bilateral synergy dedicated to the study of the breasts, containing four channels each, in 1.5 T magnetic resonance equipment. The analyzed variables included the parameters for the acquisition of the sequences of pulse, fat suppression techniques, and image acquisition plans. **Results:** The need for technical care in choosing the appropriate FOV to perform the sequences was evidenced, mainly the diffusion-weighted imaging that showed in the reconstruction of the ADC map volumetric cut of the left breast in the B examination. The FAT SAT sequences produced artifacts mainly in the B breast due to the greater volume of fatty tissue that is in direct contact with the edges of the coil, opting for its replacement by the STIR sequence. In examination A, artifact was observed due to the phase direction error in the acquisition of the sequence in STIR. The importance of adjusting the inversion time in the STIR sequences to increase the homogeneity of the magnetic field was also observed. **Conclusion:** After a qualitative analysis of the examinations and their respective parameters, the need to build a Decision Matrix to guide the operational quality standards in the breast magnetic resonance imaging examinations was observed.

Keywords: Breasts; Protocols; Magnetic Resonance.