Revised April 3 2017

Breast MR Protocols

Br 1: Breast MRI with and without contrast
Br 2: Breast MRI without contrast (implant protocol)

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Br 1: Breast MRI with and without contrast

Indications: high-risk screening, pre-operative breast CA staging, lobular CA, occult breast CA, close or positive surgical margins, post-op scar versus tumor recurrence, problematic mammogram.

Sequences:

- Axial STIR
- Axial pre-Gd 3D FLASH (no fat saturation)
- Axial pre-Gd 3D FLASH with fat saturation
- Dynamic post-Gd 3D axial FLASH with fat saturation (5 time points)
- Sagittal post-Gd FLASH (left and right separately)
- Axial delayed post-Gd 3D FLASH with fat saturation

Comments:

Hanging protocol:

- Axial STIR
- Axial pre-Gd 3D FLASH (no fat saturation)
- Dynamic post-Gd axial FLASH (2^{nd} time point-subtraction)
- Dynamic post-Gd axial FLASH (4^{th} time point-subtraction)
- Sagittal post-Gd FLASH (right)
- Sagittal post-Gd FLASH (left)
- Maximum intensity projection (right)
- Maximum intensity projection (left)
- Remainder of subtraction images and dynamic images
- Axial delayed post-Gd 3D FLASH with fat saturation
- Maximum intensity projection (bilateral)
- Scout images

Sending images to Dynacad: send all raw data EXCEPT for:

- Scout images
- Maximum intensity projections
- Subtraction images

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Br 2: Breast MRI without contrast (silicone implant protocol)

Indications: suspected silicone implant rupture

Sequences:

- Axial T2 FSE (no fat sat)
- Coronal T2 FSE (no fat sat)
- Sagittal T2 FSE (no fat sat)
- Axial STIR (label as fluid selective).
- Axial STIR with water saturation (label as silicone selective).
- Axial STIR with silicone saturation (label as silicone saturation).

Comments:

- Technologist screening questions: saline implants typically not imaged by MRI, tissue expanders are contraindicated.
- Phase encoding direction: right to left for all sequences, *except* for axial STIR with silicone saturation.
- Axial and coronal sequences are bilateral, sagittal sequences are unilateral.