

Sacroiliac Joints

MRI Protocols of the ESSR Arthritis Subcommittee



Recommendations of the ESSR Arthritis Subcommittee for the Use of Magnetic Resonance Imaging in Musculoskeletal Rheumatic Diseases. Semin Musculoskelet Radiol 2015;19:396–411

Acronyms

Ax= axial

CE= contrast enhanced

FOV= field of view

Obl= oblique

Sag= sagittal

STIR= Short Tau Inversion Recovery

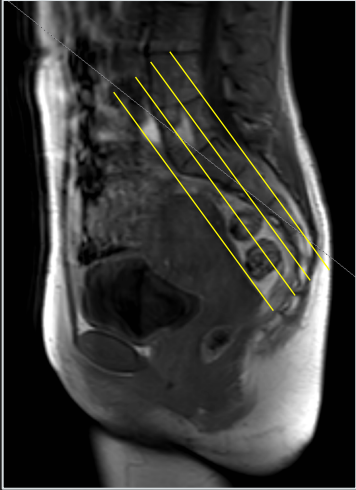
TE= echo time (ms)

TR= repetition time (ms)

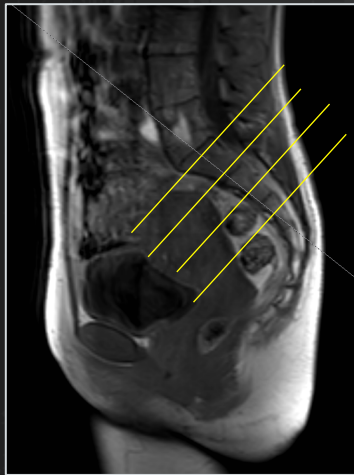
MRI scan

- Patient in supine position with the feet first
- Spine coil or body phased array coil

Localizer

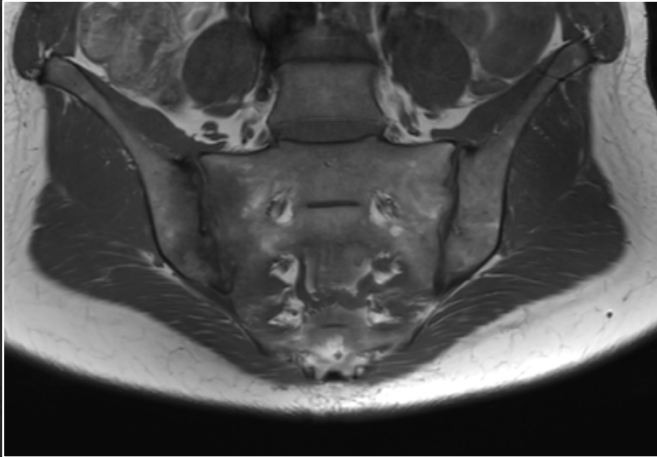


Oblique coronal plane: parallel to the long axis of the sacrum - tangent to the posterior surface of S2



Oblique axial plane: perpendicular to the coronal orientation

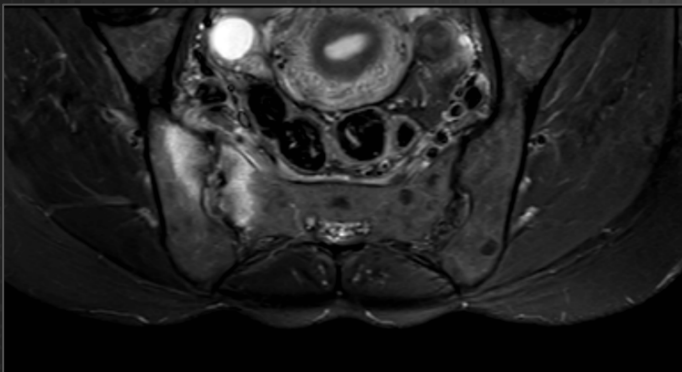
Recommended sequences



Obl cor T1



Obl cor T1FS



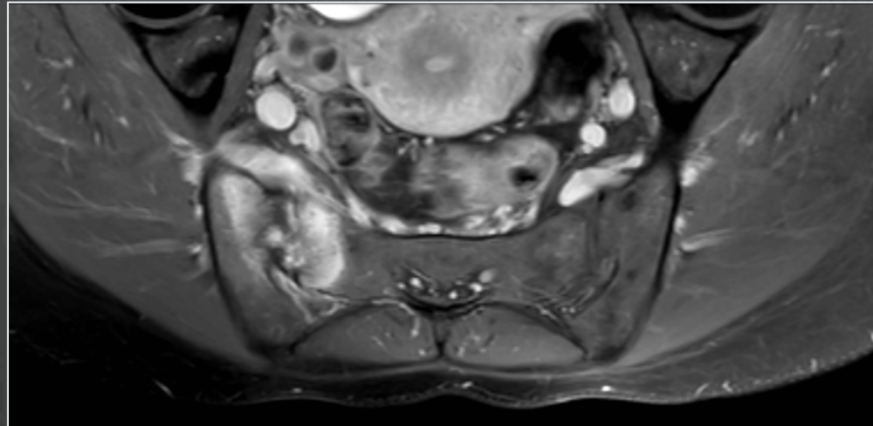
Obl axial STIR



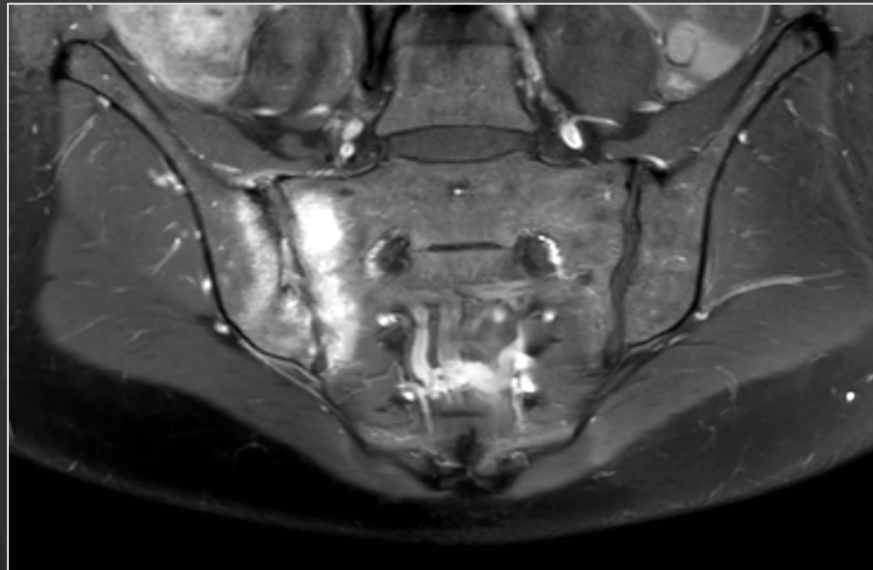
Obl cor T2 FS or STIR or TIRM or PD FS

Recommended sequences

CE Obl ax T1 FS



CE Obl cor T1 FS



MRI protocols

Recommended Sequences	FOV (cm)	Slice thickness (mm)	TR (ms)	TE (ms)	Matrix
Obl cor T1	24-30	3 (max 4)	400-700	8-20	>350
Obl cor T1 FS	24-30	3 (max 4)	400-700	8-20	>350
Obl cor T2 fat sat	24-30	3 (max 4)	4000-6000	60-90	>350
Obl cor STIR	24-30	3 (max 4)	3000-6000	60-90	>350
Obl axial STIR	20-25	3 (max 4)	3000-6000	60-90	>350
CE Obl cor T1 FS	24-30	3 (max 4)	400-700	8-20	>350
CE Obl axial T1FS	20-25	3 (max 4)	400-700	8-20	>350

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