



Guidelines for MR Imaging of Sports Injuries

European Society of Skeletal Radiology
Sports Sub-committee

2016



Contributors

- Ara Kassarian, Spain
- Lars Benjamin Fritz, Germany
- P. Diana Afonso, Portugal
- Andrea Alcalá-Galiano, Spain
- María José Ereño, Spain
- Andrew Grainger, UK
- Eva Llopis, Spain
- Eugene McNally, UK
- Claudia Schüller-Weidekamm, Austria
- Reto Sutter, Switzerland

Abbreviations and clarifications

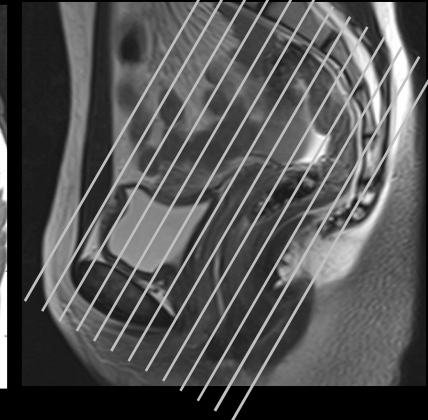
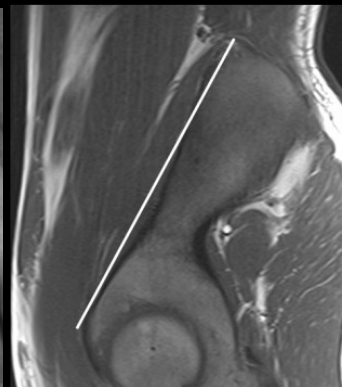
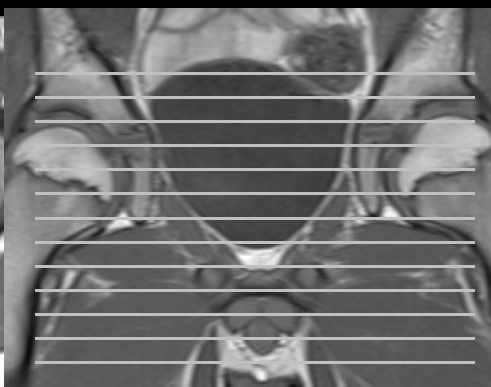
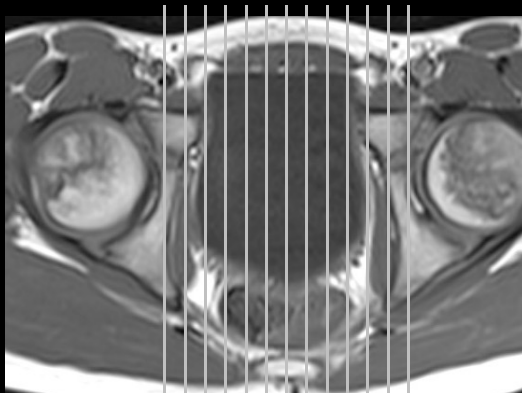


- Ax = axial
- Cor = coronal
- Sag = sagittal
- FOV = field of view
- PD = proton density
- TE = time to echo in milliseconds
- FS = fat suppressed
- Int = intermediate
- Int FS: this is a fat suppressed sequence with a long TR and a TE between that of a traditional PD (e.g. TE= 10-20) and a traditional T2 (e.g. TE=80-100). The advantage of this sequence is that the TE is short enough to maintain sufficient signal for visualisation of the anatomy (like a PD) yet long enough to be more fluid sensitive (like a T2)
- For STIR sequence, TI (inversion time) should be 140-150 at 1.5T

Groin pain



- Patient in supine position and place marker at site of pain
- Use large surface / body coil
- Coronal STIR of pelvis - include volume from anterior to the symphysis pubis through the entire sacrum
- Sagittals include volume centrally from medial acetabular walls
- Axials include volume from acetabular roofs distal to inferior pubic rami
- Obliques are parallel to anterior margin of iliac bone



Groin pain

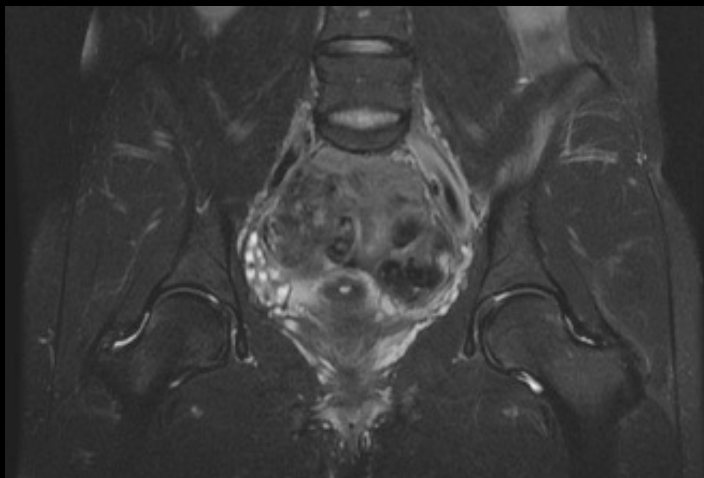


	FOV (max)	Slice (max)	TE	Matrix (min)
<i>entire pelvis</i> Cor STIR	38 cm	6 mm	40-60	256x256
Cor Int FS	16 cm	3.5 mm	40-60	256x256
Obl Int FS	16 cm	3.5 mm	40-60	256x256
Sag Int FS	16 cm	3.5 mm	40-60	256x256
Ax T1	16 cm	3.5 mm	Min	256x256

Groin pain



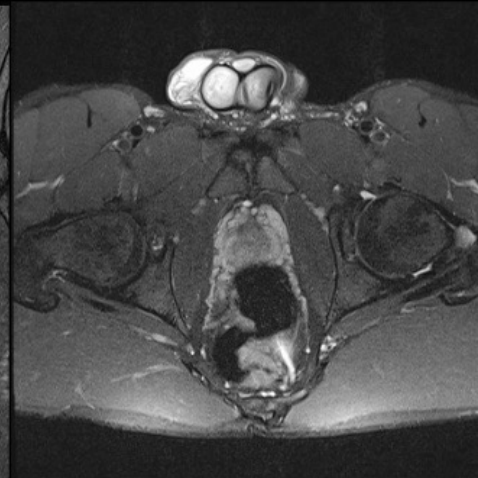
Cor STIR Pelvis



Cor Int FS



Oblique Int FS



Ax T1



Sag Int FS