Knee

MRI Protocols of the ESSR Arthritis Subcommittee

Acronyms

Ax = axial
CE = contrast enhanced
Cor = coronal
FOV = field of view
FS = fat suppressed
PD = proton density
Sag = sagittal
TE = echo time (ms)
TR = repetition time (ms)
MRI scan

- Patient in supine position with feet first
- Knee coil
- Immobilise the knee with cushions
- Three-plane localizer
Localizers

Axial plane: parallel to the knee joint line

Sagittal plane: parallel to the medial facet of lateral condyle

Coronal plane: parallel to posterior facets of the femoral condyles
Recommended Sequences

- Sag PD FS
- Cor PD FS
- Ax PD FS
- Cor T1 (or Sag T1)
Recommended Sequences

Sag T1 FS CE
# MRI protocol

<table>
<thead>
<tr>
<th>Recommended Sequences</th>
<th>FOV (mm)</th>
<th>Slice thickness (mm)</th>
<th>TR (ms)</th>
<th>TE (ms)</th>
<th>Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sag PD FS</td>
<td>160</td>
<td>3</td>
<td>3570</td>
<td>39</td>
<td>288x384</td>
</tr>
<tr>
<td>Cor PD FS</td>
<td>160</td>
<td>3</td>
<td>3570</td>
<td>39</td>
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<tr>
<td>Ax PD FS</td>
<td>160</td>
<td>3</td>
<td>3570</td>
<td>39</td>
<td>288x384</td>
</tr>
<tr>
<td>Cor T1 (or Sag T1)</td>
<td>180</td>
<td>3</td>
<td>470</td>
<td>13</td>
<td>358x512</td>
</tr>
<tr>
<td>CE T1 FS*</td>
<td>180</td>
<td>3</td>
<td>470</td>
<td>13</td>
<td>358x512</td>
</tr>
</tbody>
</table>

*if optimal assessment of synovitis/osteitis is needed*
Contributors

- Giuseppe Guglielmi, Italy
- Jans Lennart, Belgium
- Paolo Simoni, Belgium
- Vasco Mascarenhas, Portugal

*Project Coordinators*

- Chiara Giraudo, Italy
- Hannes Platzgummer, Austria