Arthroscopic Repair Of TFCC

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Ulnar Tears of TFCC
Ewas-Atzei’s classification

<table>
<thead>
<tr>
<th></th>
<th>RC-j</th>
<th>DRU-j</th>
<th>Instab.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distal Tear:</td>
<td>+</td>
<td>-</td>
<td>-/+</td>
</tr>
<tr>
<td>Proximal T.:</td>
<td>-</td>
<td>+</td>
<td>+++</td>
</tr>
<tr>
<td>Complete T.:</td>
<td>+</td>
<td>+</td>
<td>+++</td>
</tr>
<tr>
<td>Massive T.:</td>
<td>+</td>
<td>+</td>
<td>+++</td>
</tr>
</tbody>
</table>

HEALTHY DRU-j CARTILAGE
Peripheral Tears of TFCC

**Distal Tear:**
SUTURE  
(LIGAM. -TO- CAPSULE)

**Proximal T.**
FOVEAL  
REFIXATION  
(LIGAM. -TO- BONE)

**Complete T.**

**Non-Repairable**
TENDON  
GRAFT
1B lesions, EWAS-Atzei 1
D’après Pfirrmann &al. Skeletal Radiol, 2001
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Prono-Supination Neutral

Supination !!!
Technique

- Local-regional anaesthesia
- Tourniquet
- Outpatient surgery
- Elbow flexed 90°
- «Japanese» fingers traps

- 3-4 portal for vision
- 6R portal for instrumentation
- RUD portal for suture
Technique

Removal of scar tissue with a shaver
Technique

Needle pinpointing of the right position for the RUD portal
Technique

First 34 gauge needle inserted from the RUD portal into the meniscal part of TFCC with loop suture.
Technique

First 34 gauge needle inserted from the RUD portal into the meniscal part of TFCC with loop suture. The loop of absorbable suture is grasped with a grasping forceps from the 6R portal,
Technique

Then second needle is inserted close the first one, and second suture is passed through the needle from RUD portal to 6R portal in the same way that the first suture.
Technique

Then second needle is inserted close to the first one, and second suture is passed through the needle from RUD portal to 6R portal in the same way that the first suture.
Technique
The simple second suture is passed outside into the loop.
Technique

Then the loop is pull down from the RUD portal in order to catch the simple suture into the joint
Technique

Pull the knot tight at the level of RUD portal, avoiding a intra-articular knot.
Technique

Below elbow splint in slight wrist extension and ulnar deviation for 6 weeks
$D + 6 \text{ months}$

3-4 approach

6R approach
Clinical case
Clinical case
Clinical case
Clinical case
Foveal detachment could be isolated or associated to lateral lesion
Arthrosoc. Assisted TFCC foveal reattachment

Direct foveal portal (ATZEI 2008)
Arthrosc. Assisted TFCC foveal reattachment
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Direct foveal portal (ATZEI 2008)
Arthrosc. Assisted TFCC foveal reattachment

Direct foveal portal (ATZEI 2008)
Arthrosoc. Assisted TFCC foveal reattachment

Ulnar fovea is visualized through D-DRUJ portal and roughened with shaver
Arthrosc. Assisted TFCC foveal reattachment
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Arthrosoc. Assisted TFCC foveal reattachment
Reconstruction of TFCC
Reconstruction of TFCC
Reconstruction of TFCC
Material

• 157 patients (2007-2010)
• 52 females          105 males
• Average age :  36.4 y.o. (range 15 - 59)
• Average delay 21 weeks (1 to 60)
• Sport injury :  129 cases
• High level: 35 cases
• Fencing : 22 cases
• Tennis : 35 cases
• Golf : 21 cases
Material

157 patients (2007-2010)

Ewas-Atzei’s Classification

- Stage 1 (classical 1B): 91 cases
- Stage 2 (foveal isolated lesion): 21 cases
- Stage 3 (Distal and proximal lesion): 44 cases
- Stage 4 (complete and massive rupture): 1 case
Results

Follow-up 42 months: (between 24 and 65)

Pain = 0 in 128 cases
De Smet score: 70.25 (range 42 to 80)
Mayo-Wrist Score: 90.28 (range 65 to 100)
Total functional outcomes

<table>
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<tr>
<th></th>
<th>Pre-op</th>
<th>post-op</th>
<th>controlateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexion</td>
<td>52,26</td>
<td>64,82 (p&lt;0,01)</td>
<td>67,50 (p=0,26)</td>
</tr>
<tr>
<td>Extension</td>
<td>64,43</td>
<td>71,07 (p&lt;0,01)</td>
<td>73,57 (p=0,35)</td>
</tr>
<tr>
<td>Radial deviation</td>
<td>20</td>
<td>27,32 (p&lt;0,01)</td>
<td>28,75 (p=0,48)</td>
</tr>
<tr>
<td>Ulnar deviation</td>
<td>30</td>
<td>37,14 (p&lt;0,01)</td>
<td>38,85 (p=0,27)</td>
</tr>
<tr>
<td>Pronation supination</td>
<td>0-172</td>
<td>0-178 (p&lt;0,02)</td>
<td>0-179 (p=0,16)</td>
</tr>
<tr>
<td>Wrist strength</td>
<td>22,46</td>
<td>35,6 (p&lt;0,01)</td>
<td>38,57 (p=0,18)</td>
</tr>
</tbody>
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No problem with sporty level +++
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Conclusion

Arthroscopic Suture

*Indications:*
- TFCC Distal Lesions
- Minor Instability

Arthroscopic Assisted Osseous Refixation

*Indications:*
- TFCC foveal avulsion
- Major Instability