Postoperative outcome of fresh Achilles tendon ruptures after with percutaneous Achillorrhaphy with the Dresden instrument''

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My disclosure is in the Final AOFAS Program Book.
I have no potential conflicts with this presentation.
Aim of the study

Evaluation of the postoperative outcome of the percutaneous achillorrhaphy of fresh achilles tendon ruptures?

- Function
- ROM
- Scores
- patient satisfaction
- complication rates
- infections
- re-rupture
Patients and Methods

- Retrospective study (2006-2011)
- 121 Achilles tendon ruptures
- Rupture < 10 days, partial adaptation in 20° plantar flexion
- Perkutaneous technique
- Follow-up: 33.5 months (7-82 Mo)
- Follow-up rate: 121/189 patients

Exclusion criteria
- Re-rupture
- Immunusuppression
- open / old ruptures

- Sports injury: 77.8 %
- Minor injury: 22.2 %

- Age: 43.7 y (24-73 y)
- M/W: 101/20 (5:1)
- R/L: 57/64
Patients and Methods

Clinical examination

Dynamic sonography

Minimal-invasive percutaneous suture

Standardized Rehabilitation protocol

FU-Examination

- Ankle ROM
- calf volume
- complications

Subjective satisfaction

- VAS pain
- VAS function

- 100-points Thermann Score
- AOFAS Hindfoot Scale
- Achilles Tendon Rupture Score
- Trillat-Score
Surgical technique
# Results (n=121)

## ROM and calf volume

<table>
<thead>
<tr>
<th></th>
<th>Injured side</th>
<th>Intact side</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plantar flexion (°)</td>
<td>46.2 ± 9.05</td>
<td>47.6 ± 8.4</td>
</tr>
<tr>
<td>Dorsal extension (°)</td>
<td>14.4 ± 4.8</td>
<td>15.0 ± 5.1</td>
</tr>
<tr>
<td>Calf volume (cm)</td>
<td>36.4 ± 2.9</td>
<td>37.6 ± 2.6</td>
</tr>
</tbody>
</table>

\[\Delta: 1.4\]

P: 0.003

**VAS pain:** 0.6 (SD: 1.0; 0.0 – 7.0)

**VAS loss of function:** 1.3 (SD: 1.4; 0.0 – 8.0)
## Results (n=121)

<table>
<thead>
<tr>
<th>Score</th>
<th>Ø</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermann</td>
<td>85.6</td>
<td>12.3</td>
<td>25-100</td>
</tr>
<tr>
<td>AOFAS</td>
<td>95.3</td>
<td>6.76</td>
<td>74-100</td>
</tr>
<tr>
<td>ATRS</td>
<td>85.34</td>
<td>14.9</td>
<td>19-100</td>
</tr>
</tbody>
</table>

**Trillat Score**

- **47.1%**: excellent
- **38.8%**: good
- **5%**: fair

### Scores

- **good**
- **excellent**
- **good**

**3 x re-ruptures (minor injury)**

- **1 x N. suralis lesion**
- **1 x lower leg thrombosis**

- **no need for open technique**
- **no infection**
- **no wound healing problems**
Discussion and Conclusions

The percutaneous Achillorrhaphy of fresh Achilles tendon ruptures

- offers good to excellent functional outcome
- offers a high patient satisfaction
- with low complication rates
  - no infection
  - 2.5% re-rupture rates after trauma
  - 0.8% lesion of N. suralis
References