The long-term effect of high volume image-guided injection in the chronic non-insertional Achilles Tendinopathy: a prospective case series.

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Conflict of interest

• Martin Lind

• I have no conflicts of interest to disclose
Background

This present study evaluated the long-term effect of high volume image-guided injection (HVIGI) for chronic non-insertional Achilles Tendinopathy (AT).
Purpose

Does HVIGI-treatment for chronic non-insertional AT improve function and reduce pain at a long-term follow-up?
Patient Inclusions Criteria

- Patients with resistant non-insertional AT who failed to improve with a 3-month eccentric loading program were included in the study
Method – HVI Injection

- Maximal tendon thickness and neovascularisation was assessed with ultrasound and power Doppler.

- All the tendinopathic Achilles tendons were injected, under real time ultrasound guided, with
  - 10 mL of 0.5% Marcaine
  - 0.5 mL Triamcinololonacetonid (40mg/mL)
  - 40 mL of 0.9% NaCl saline solution
Method - Outcomes

- All outcome measures were recorded at baseline and after one year follow-up.

- Clinical outcome was assessed with the Victorian Institute of Sports Assessment-Achilles tendon (VISA-A) questionnaire.
Method – Rehabilitation Protocol

- A standardized eccentric loading rehabilitation protocol was prescribed after HVIGI-treatment including Heavy Slow Resistance (HSR) Training.
## Patient Demography

### Study Period - 2013-2017

<table>
<thead>
<tr>
<th>Procedures</th>
<th>41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men/Women</td>
<td>26/7</td>
</tr>
<tr>
<td>Mean Age</td>
<td>44.4 (range 16-63)</td>
</tr>
<tr>
<td>Mean duration of symptoms</td>
<td>36 months</td>
</tr>
</tbody>
</table>
Results – VISA-A

VISA-A SCORE

BASELINE

1 YEAR

48

62

*
## Results – VISA-A

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;10 points improvement</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Non-responders</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>- Surgery</td>
<td></td>
<td>2 Patients</td>
</tr>
<tr>
<td>- Additional HVIGI</td>
<td></td>
<td>9 Patients</td>
</tr>
</tbody>
</table>
Conclusion

- HVIGI-treatment for chronic non-insertional achilles tendonopathy significantly improved function and reduced pain (VISA-A) at long-term follow-up.
- 34% of the patients did not respond to a single HVIGI treatment.