The Leicester Achilles Management Protocol (LAMP): A treatment strategy for Achilles rupture

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No Conflict of interest for any of the authors
Controversies with functional rehabilitation for Achilles Tendon rupture

- Rehabilitation regime?
- USS?
- Size of gap?
- Age?
- Duration of treatment?
Aims

Establish a standardised functional rehabilitation regime for the management of acute Achilles tendon rupture
Leicester Achilles Management Protocol

- 8 weeks in a Vacoped Boot
- FWB Mobilisation day 1

<table>
<thead>
<tr>
<th>Time since diagnosis</th>
<th>Vacoped position</th>
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<tbody>
<tr>
<td>0-4 weeks</td>
<td>Locked in 30 plantarflexion</td>
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<tr>
<td>4-6 weeks</td>
<td>Dynamised 15-30 plantarflexion</td>
</tr>
<tr>
<td>6-8 weeks</td>
<td>Dynamised 0-30 plantarflexion</td>
</tr>
<tr>
<td>@ 8 weeks</td>
<td>Boot removed</td>
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Methods

• All adult patients with mid-substance acute Achilles tendon ruptures

• Feb 2011 – Jan 2016

• Clinical diagnosis

• Treated with the Leicester Achilles Management Protocol regardless of gap size or age

• Further imaging only in cases of clinical uncertainty
Exclusion criteria

• Age less than 18
• Delayed presentation (>2 weeks post injury)
• Open injuries
• Patients opting for surgery
• < 12 months outcome score
Outcomes

• PROMS
  – Achilles Tendon Rupture Score (ATRS)

• Objective
  – Calf muscle girth
  – Heel raise height

• Complications
  – Re-rupture
  – Symptomatic VTE
Results

Total AT ruptures
N = 457

Exclusions (surgery)
N = 15

Functional rehabilitation using LAMP
N = 442

Complications
Reruptures = 9 (2%)
VTE = 26 (5.9%)

12 months ATRS
N = 206

Consultant supervised Physiotherapy led service
N = 73

Objective measures
Heel raise height / calf circumference
N = 51

Fracture clinic led service
N = 133
Results

• 165 males; 41 females

• Average age 49 years  
  – Range 21-82

• Average ATRS at mean 24 months post injury  
  – 75.4 (CI 72.4-78.4)
Objective measures

• Average ATRS 81

• Calf muscle girth
  – 38cm affected vs. 39.16cm unaffected P<0.005

• Heel raise height
  – 8.24cm affected vs. 10.37cm unaffected P<0.005

• ATRS
  – Muscle girth 0.086, P>0.05
  – Heel raise height 0.175, P>0.05
Summary

• Largest series

• ATRS comparable to other published series

• Objective difference present at 12 months
  – No correlation with ATRS
Issues Resolved

• Rehabilitation regime
  – Standardised

• USS
  – Only in cases of clinical uncertainty

• Size of gap
  – ?

• Age
  – All adult patients

• Duration of treatment
  – 8 weeks