Endoscopic transfer of Flexor Hallucis Longus for Chronic Achilles rupture: Technique description and case series.

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Disclosure

• No Conflict to disclosure:
  • Daniel Baumfeld, Tiago Baumfeld, Luis Fernando de Araújo, André Rocha, Thiago Alexandre, Fernando Raduan
• Conflict to Disclosure:
  • Caio Nery
    • Consultant/Speaker:
      • Arthrex Inc
      • Wright Medical
      • Geistilic Surgery
• Our Disclosures are in the Final AOFAS Mobile App
Introduction

- Chronic Achilles Tendon (AT) Rupture
- Technical Options:
  - V-Y lengthening
  - Reinforcing flap from proximal AT
  - Tendon Grafts
  - Tendon Transfers – Peroneus Brevis, Flexor digitorum longus, Flexor Hallucis longus (FHL).
- This study reports the technique and present the preliminary results of six patients submitted to an **endoscopic FHL transfer** to treat chronic AT ruptures.
Surgical Technique

Fig 1 – Posterior Hindfoot endoscopy
Surgical Technique

Fig 2 – Endoscopic visualization of the FHL
Fig 3 – FHL endoscopic tenotomy proximal to Henry’s notch
Surgical Technique

Fig 4 – FHL externalized through the posteromedial portal with a Krakow suture
Surgical Technique

Fig 5 – Calcaneal tunnel through the posterolateral portal. The tunnel was 30 mm deep and 0.5 mm wider than the tendon.
Fig 6 – Fixation was performed maintaining the ankle in 5 to 10 degrees of plantar flexion (physiological equinus) while the proper tension on FHL was established pushing the fiber wire. with a metallic interference screw with the same tunnel width (7x25mm)
<table>
<thead>
<tr>
<th>Variables</th>
<th>Patient 1</th>
<th>Patient 2</th>
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<th>Patient 4</th>
<th>Patient 5</th>
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<td>28</td>
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*NP – Not Palpable / NC – Not Collected / PARS - Percutaneous Achilles Repair System / ATRS - Achilles Tendon Total Rupture Score
Results/Discussion/Conclusion

- 9 months follow-up
- ATRS 17.8 → 83.3 after surgery
- No complications in this case series
- High complication rates with open FHL transfers, reaching 36% (Dalton GP, 2001)
- Less morbidity with endoscopic transfer (Lui TH, 2016)
- Technically demanding procedure, requiring high level arthroscopic experience.
- This approach needs further comparative studies with the open procedure.
References