Central Achilles Splitting Approach and Near Complete Detachment Repaired with Achilles SpeedBridge for Insertional Calcific Achilles Tendinopathy

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Mandatory Disclosure Statement

The disclosure for Craig Gillis and Jason Lin is in the final AOFAS Mobile App. Neither author has potential conflicts with this presentation.
Insertional Calcific Achilles Tendinopathy

• Initial treatment modalities include ice, activity modification, NSAIDs medications, heel lifts, stretching and strengthening.

• After a period of 3-6 months of conservative management, surgical intervention may be warranted with debridement of diseased tissue.
Surgical Management of ICAT

• Includes debridement of calcific tissue, Haglund’s deformity excision, and retrocalcaneal bursectomy.
  – Despite success rates of 75-100% with surgery, no consensus exists on the acceptable amount of detachment of the Achilles during debridement.
Methods

• Retrospective case series for patients treated surgically after failing conservative treatment for ICAT.
• All surgeries performed by co-author J.L., a fellowship trained foot and ankle surgeon.
• Data collection performed with VAS, satisfaction scores, AOFAS-HF score, and SF-36 physical functioning.
• Exclusion criteria included patient age <18yo, patient willingness to participate.
Surgical Technique

- Incision made longitudinally over midline of the Achilles insertion.
- Initial dissection carried down to bone with subperiosteal detachment of the insertion of 80-90%.
  - Medial and lateral limbs were preserved (See yellow arrows on figure 1).
Surgical Technique

- A calcaneal exostectomy was performed on Haglund’s deformity followed by debridement of diseased tendon.

- Tendon was then reattached to calcaneus with a double row Achilles SpeedBridge suture anchor.
Post-Operative Management

• Immobilization in a bulky Jones with the ankle in neutral.
  – At two weeks, transitioned into a boot but maintained NWB.
• NWB for four weeks, followed by protective progressive WB of 25% increments per week.
• Formal physical therapy initiated at six weeks post-operatively.
• Transitioned out of boot into normal footwear when 100% WB.
Results

- 14 patients, 16 heels
  - 11 female
  - 4 male
  - Average follow up 18 months (3-25)
- AOFAS-HF completed by 9 patients
  - Score 98.4 (52-105)
- SF-36 physical function completed by 11 patients
  - Score 77.7 (30-100)
- All patients reported being satisfied with their outcome.

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<th>Pre-Op</th>
<th>Post-Op</th>
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<td>VAS</td>
<td>7.25(3-10)</td>
<td>1.81(0-5) (p&lt;0.001)</td>
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Complications

• One diabetic smoker developed a post-operative infection at 6 weeks.
  – Required I&D at 6 weeks followed by antibiotics with HWR at 18 weeks.
  – Post-op pain 5/10 but reported ultimate satisfaction and no significant limitations.

• No patient was found to have a failure of the suture bridge fixation at final follow up.

• No shoe wear problems were noted by patients at final follow up.
Conclusions

• A central Achilles splitting approach with 80-90% detachment does not increase the risk of post-operative rupture.

• The double row suture bridge provides stable fixation for healing.

• High patient satisfaction and excellent functional results can be expected with the suture bridge.

• Surgery for ICAT reliably alleviates pain while providing excellent healing rates.
References