THE SENIOR ACHILLES TENDON

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ACHILLES TENDON

• No conflict of interest
• No off label use of devices
• No financial relationships to disclose

ACHILLES TENDON

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ACHILLES TENDON

• Achilles tendinopathies:
  - Achilles tenosynovitis
  - Achilles tendinosis
  - Achilles insertional tendonitis
  - Haglund’s deformity

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• Who was Achilles?
ACHILLES TENDON: INCIDENCE

- Achilles tendinopathy incidence: unknown

Incidence and prevalence of lower extremity tendinopathy in a Dutch general practice population: a cross sectional study

1:1000 incidence of tendinopathy

ACHILLES TENDON TENDINOPATHY: INCIDENCE

Research Article
The Risk of Achilles Tendon Rupture in the Patients with Achilles Tendinopathy: Healthcare Database Analysis in the United States

Achilles tendinopathy:

MIDSUBSTANCE
- Haglund’s deformity
- Tendonitis vs. Tendinosis

INSERTIONAL
- Tendonitis vs. Calcific

PATHOLOGIES WITH LONG RECOVERIES
ACHILLES TENDON: TENOSYNOVITIS

Pathophysiology
- No tendon sheath, just paratenon
- Inflammation because of the scarring and tethering of the tendon to the paratenon

Presentation
- No nodule on presentation
- Shorter history than tendinosis. More debilitating.
- Behaves like most overuse injuries: no pain while being “warm”

Treatment
- Responds well to therapy
- Hyper-insuflation of the paratenon with saline/anesthesics
- No long term activity limitations

Minimally Invasive Achilles Tendon Stripping for the Management of Tendinopathy of the Main Body of the Achilles Tendon
Neota Mathai, MD, PhD. FRCE, FRCS, Francesco Oliva, MD, PhD, Gayle D. Maffulli, MD, PhD, Alessio G. Yau, MD, Nikolaos Gougneakis, MD

N=47 Questionable outcome tools
3.5 months to return to sports. Preinjury level?
ACHILLES TENDON: TENDINOSIS

Presentation:
• Usually a history of overuse or excessive training
  • Long standing history
  • Morning stiffness and pain

ACHILLES TENDON: TENDINOSIS

• Majority of the time the Achilles presents a nodule within itself

  • Pain on palpation and strenuous activities

ACHILLES TENDON: TENDINOSIS

• All sort of spectrum of pathology associated

ACHILLES TENDON: TENDINOSIS

Treatment:
• Physical therapy for Graston Technique

ACHILLES TENDON: TENDINOSIS

Treatment for significant tendinosis:
• Surgical approach: tendon debridement +/- FHL tendon transfer

  • Why FHL tendon?

ACHILLES TENDON: TENDINOSIS

FHL tendon:
• Fires at the same sequence/stage of the gait cycle than the Achilles tendon

  • Presents with a low muscle belly (helps vascularization of the Achilles tendon)

  • Second strongest deep flexor tendon
ACHILLES TENDON: TENDINOSIS

FHL tendon:

30% injury to the medial plantar branch.

ACHILLES TENDON: TENDINOSIS

FHL tendon:

Single incision with minimum morbidity.

ACHILLES TENDON: TENDINOSIS

FHL tendon:

I have regretted NOT to transfer the FHL tendon, but have never regretted to transfer it.

ACHILLES TENDON: TENDINOSIS

Surgical treatment for achilles tendinopathy – a systematic review

N=801. Good/Excellent in 84%
Complications 6%

ACHILLES TENDON: TENDINOSIS

Surgical treatment for midportion Achilles tendinopathy: a systematic review

N=1285. Good/Excellent in 76% to 100%
Complications 7%
ACHILLES TENDON: INSERTIONAL TENDONITIS

Presentation:
- Gradual onset of pain along posterior aspect of the heel.
- Specially bad in the morning and after activities (overuse “features”)
- Burning, pain, stiffness. Sensitivity to any posterior trauma

ACHILLES TENDON: INSERTIONAL TENDONITIS

Treatment:
- Physical therapy with application of modalities
  ++++ Eccentric strengthening
- +/- +/- Night splints/PRP/Corticosteroid injections

Surgical approach

ACHILLES TENDON: INSERTIONAL TENDONITIS


ACHILLES TENDON: INSERTIONAL TENDONITIS

- Surgical excision of the osteophyte
- Splitting the tendon vs. full detachment of the tendon
- Achilles debridement with partial calcaneus excision

ACHILLES TENDON: INSERTIONAL TENDONITIS

- Postoperative course:
  - 6 weeks NWB
  - 6 weeks WBAT with a Cam Walker
  - No restrictions

- Six months until fully recovered
ACHILLES TENDON: INSERTIONAL TENDONITIS

Results:

- 83% to 87% excellent results

ACHILLES TENDON: INSERTIONAL TENDONITIS

Haglund’s deformity:
- Easy to distinguish from insertional tendonitis on exam
- More likely to improve with conservative measures

ACHILLES TENDON: INSERTIONAL TENDONITIS

Haglund’s deformity:
- Modalities of physical therapy
  - Corticosteroid injections
  - Stretching program

ACHILLES TENDON: INSERTIONAL TENDONITIS

Haglund’s deformity:
- Surgical treatment
- Nine months recovery

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Summary
- Achilles tendon has a long recovery period
- Tenosynovitis usually has a non surgical solution
- Tendinosis more likely to require surgery
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Summary

- Haglund's deformity: surgical indication based on the size of the osteophyte
- Insertional tendonitis: surgical indication based on the size of the osteophyte

THANK YOU

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