2:55 – 3:00 pm
Radiofrequency Treatment of Achilles Tendinopathy
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Introduction
- Symptomatic Achilles Tendinosis:
  - Pain and decreased function
- Etiology related to lack of blood flow
- Non inflammatory
- Treatment: 1) Conservative 2) Surgical

Bipolar Radiofrequency: Topaz
- Topaz (Arthrocare, Sunnyvale, CA) - FDA approved for tendinotomy
- Technology: Low temperature bipolar radiofrequency electrical energy
- Microdebrider conserves the overall tendon structure
- Promotes healing and angiogenesis
- Pain modulation through ablation of afferent nerves

Materials & Methods
- Single-center, multi-surgeon study
- Retrospective review
- Ten patients
- Minimally invasive open procedure
- Microdebrider of the Achilles tendon with Topaz

Inclusion Criteria
- 18 years of age and older
- Non-insertional Achilles tendon pain/tenderness
- Impaired performance
- MRI findings: Achilles tendinopathy
- Failed conservative management

Exclusion Criteria
- Nonsteroidal anti-inflammatory therapy within 2 weeks prior to surgery
- Previous Achilles tendon surgery
- Treatment with extracorporeal shockwave therapy
- Multiple anatomic origins of foot pain
- Pregnancy
Outcome Measures

- AOFAS Ankle Hindfoot Score
  - Modified to select for pain and function:
    - Pain (0-40)
    - Activity Limitations (0-10)
    - Max Weight Bearing (0-5)
    - Walking Surfaces (0-5)
    - Gait Abnormality (0-8)
  - TOTAL: 68 POINTS

Surgical Technique

- Posteromedial skin incision
- Full thickness skin flaps including the paratenon
- Complete exposure of the degenerated tendon.

Surgical Technique

- Insert Topaz wand into the degenerated tissue
- 5 mm interval grid
- Vary depth of penetration

Modified AOFAS Scores

- Improved AOFAS scores in 9 out of 10 patients.
- Average follow-up: 17 months
- Preoperative average of 28 improved to an average of 54 on a 88 point scale.
- 1 failure (persistent pain and functional deficits) requiring open debridement tendon transfer.

Conclusions

- Improved pain and function
- Relatively easy to use
- Minimally invasive surgical device
- Study limitations: study design, small cohort, short term follow-up, no control group.
- Need long term studies comparing the TOPAZ technique with other surgical and non-surgical interventions.