Bipolar Fresh Osteochondral Allografting of the Tibiotalar Joint:
An alternative to arthrodesis and arthroplasty in the younger patient

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Disclosure

- JRF Ortho (allograft tissue distributor)
  - Consultant and research support
Post Traumatic Ankle Arthritis

• Young, active patients
• Most not thrilled about arthrodesis
  – Reluctant choice
• Total ankle arthroplasty
  – Still concerns about durability and longevity
• Long term consequences of these procedures
  – Adjacent joint arthritis, bone loss
  – What is the salvage?
How long does your operation need to last?
In the absence of a predictable 40 year result we need an interim solution

• Relieves pain and improves function
• Maintains tibiotalar joint motion
  – protects surrounding joints
• Can be revised or converted to another procedure with relative ease
“Our Hypothesis”

• Osteochondral allografting is an acceptable alternative treatment for the management of end stage tibiotalar arthritis.
  – Patient satisfaction
  – Pain and function
  – Clinical failure and graft survivorship
• Clinical failure does not preclude further surgical treatment
Bipolar Osteochondral Allograft Transplantation of the Tibiotalar Joint for Ankle Arthritis

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Based on an original article: J Bone Joint Surg Am. 2013 Mar 6;95(5):426-32.
• 84 patients (mean age 44)
• 88 ankles
• 5.3 year f/u (2-11)
• 92% satisfied, 85% less pain, 83% improved function
• 25 (29%) graft reoperation
  – 10 Revision allograft, 7 arthrodeses, 6 TAA, 2 amputation
Olerud-Molander Ankle Scores

- Mean preoperative score 28 (± 16)
- Mean follow-up score 61 (± 26)
- p< 0.001
Allograft survivorship

Survival rate:
- 76% at 5 years
- 44% at 10 years
Bipolar Ankle Allografting

- Consider in the carefully selected young patient
  - High reoperation rate
  - Good functional outcome
  - Good allograft = really happy patient
  - Bad allograft = try again or reinsert patient into the traditional algorithm

Do you really want to fuse this ankle?
Thank You