Single-stage FHL transfer for chronic rupture of both peroneal tendons with cryopreserved amniotic membrane/umbilical cord

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CONFLICT TO DISCLOSE

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My disclosure is in the Final AOFAS Mobile App.

I have a potential conflict with this presentation due to:
Consultant- Amniox
Background

- Surgical treatment of chronic rupture of both peroneal tendons is challenging$^{1-3}$
  - Lack of adequate reparable tendon
  - Excessive fibrosis
  - Loss of tendon sheath

- Flexor tendon transfer is a commonly accepted treatment method, but often requires a 2-stage technique$^2$
Background

- Cryopreserved amniotic membrane/umbilical cord (AM/UC) has been utilized extensively in ophthalmology procedures
  - Minimizes postop pain, inflammation, and adhesion formation
- Recently, its use has been expanded to lower extremity reconstructive procedures
  - Wound healing\(^4\)
  - Adhesion prevention\(^5,6\)
- Its use may be ideal when treating chronic peroneal rupture with excessive scarring
Purpose

• To describe a single-stage FHL transfer in chronic peroneal rupture, with use of cryopreserved AM/UC to act as a pseudosheath and adhesion barrier

• The results of 2 patients undergoing this procedure are reported
Materials & Methods

- 2 females
- Age
  - Patient 1: 53 yrs
  - Patient 2: 71 yrs
- Length of follow up:
  - Patient 1: 12 months
  - Patient 2: 6 months
- VAS score
  - Preop and Postop
- Eversion strength
  - Preop and Postop
Operative Technique

- Medial incision to harvest FHL at Knot of Henry
- FHL transferred medial to lateral posterior to fibula
- FHL attached to base 5\textsuperscript{th} metatarsal
  - Tensioned with foot in eversion
- Residual peroneal stumps tenodesed to FHL proximal and distal
Operative Technique

- Cryopreserved AM/UC wrapped circumferentially around FHL tendon
  - To act as psuedosheath and adhesion barrier
- Post op protocol:
  - NWB cast
  - WB in removable boot at 6 weeks postop
  - Formal PT begins wk 9
Results

- **VAS score**
  - Patient 1: 5→0
  - Patient 2: 10→2

- **Eversion strength**
  - Patient 1:
    - Preop: 1/5
    - Post op: 5/5
  - Patient 2
    - Preop: 1/5
    - Postop: 4/5

- **Wound complications:** none

- **Satisfaction:**
  - Both patients satisfied and state would undergo procedure again
Conclusion

- AM/UC is useful as an adhesion barrier and pseudosheath in cases of chronic rupture of both peroneal tendons, treated with FHL transfer

- Its use may prevent the need for a 2-stage procedure

- Future studies needed to further evaluate
References


