STRUCTURES AT RISK WITH MEDIAL DOUBLE HINDFOOT FUSION: A CADAVERIC STUDY

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Disclosure

Structures at Risk with MD Hindfoot Fusion: A Cadaveric Study

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Purpose

Cadaveric examination to determine the neurovascular & tendinous structures at risk via the medial double.
Hypothesis

There is a safe distance between the incision and the neurovascular bundle.
Why Medial Double

• Adequate access for joint preparation
• Excellent deformity correction with good fusion rates
• Less soft tissue complications
Methodology

• Ten cadaveric specimens
• Dissection via a standardized medial approach
• Distance (mm) from the middle facet
  • Posterior Tibial tendon
  • Flexor Digitorum Longus tendon
  • Flexor Hallucis Longus Tendon
  • Neurovascular Bundle
Proximity to the middle facet

- **Posterior Tibial**
  - 1.88 mm ±2.65 (0 to 6.65)

- **Flexor Digitorum Longus**
  - 5.34 mm ±4.79 (-3.14 to 12.79)

- **Flexor Hallucis Longus**
  - 19.08 mm ±4.84 (13.04 to 27.31)

- **Neurovascular Bundle**
  - 21.19 mm ±7.84 (8.36 to 34.26)
Distance (in millimeters) from the middle facet to the tendinous and neurovascular structures encountered in the medial double dissection of 10 below knee specimens.
Analysis & Discussion

- A minimum of 5 mm was noted between the middle facet and the surrounding anatomic tissue during the medial double approach
  - Exception of the Posterior Tibial Tendon (1.88 mm ±2.65)

- The neurovascular bundle was visualized >2 cm from the middle facet

- This demonstrates a safe and effective corridor when performing the medial double dissection
References