Minimally Invasive Approach (MIS) to Calcaneal Fractures: Can it improve soft tissue and wound complications?

W. Bret Smith, DO
Moore Orthopaedics
Columbia, SC
Disclosure

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My disclosure is in the Final AOFAS Program Book.

I have a potential conflict with this presentation due to:

Smith/Nephew
Overview of MIS Calcaneal Approach

Evaluate early results utilizing a limited subtalar approach for intra-articular calcaneal fractures

Review of soft tissue and wound complications compared with the traditional lateral extensile approach

Discuss technique and pearls of the MIS approach to calcaneal fractures
Methods

- 36 consecutive patients who sustained closed, intra-articular calcaneal fractures
- A minimally invasive sub-talar approach was used on all patients
- All patients were followed for a minimum of 6 months post-op to assess wound healing and soft tissue changes
- Any additional surgeries or post-operative complications were recorded
Pre-op CT scan
Post-op x-rays
MIS Incision

Approach

Closure
Extensile approach

- Most common approach to calcaneal fractures
- Requires development of a large soft tissue flap
- Usually requires a lengthy time between injury and surgery based on soft tissue swelling
- Review of the literature reveals a wound complication rate of 11-25%
- Limited soft tissue envelope available if wound complications occur
Results of MIS approach

- 36 consecutive patients
  - closed, intra-articular calcaneal fractures
- MIS approach used in all cases
- 7-14 days average between injury and surgery

- No post-operative wound complications seen out to 6 months of follow-up
- No additional surgeries needed at 6 months follow-up
  - Certain fracture variations may still require lateral extensile approach
Selected References


