Hindfoot Endoscopy for Treatment of Posterior-Medial Calcific Tendinosis and Posterior Impingement

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Hindfoot endoscopy has been described for rearfoot joint debridement and arthrodesis, but little is documented for its place in tendon remodeling. This case study presents a unique case of tendinosis and ankle joint calcification involving multiple posterior-medial tendons. Our surgical approach exemplifies the versatility and utility of hindfoot endoscopy in managing rearfoot structural limitations while offering direct anatomic visualization and minimal soft tissue violation.

Literature Review

Pathologic deposition of calcium hydroxyapatite within and surrounding tendons is common, with the majority of cases involving the hip and shoulder. The process is less often described in the literature of hindfoot tendinosis. Calcific tendinosis has been approached with extensile intervention may be indicated. Historically, calcific tendinosis recalcitrant to conservative cares, surgical anti-inflammatory medications. If symptoms are conservative with immobilization and nonsteroidal treatment.

The rearfoot was approached from a prone position with a 4-portal endoscopic approach for diagnosis and treatment of posterior ankle pathology. Arthroscopy 16:871-876, 2000.

Analysis & Discussion

Calcification was removed via direct visualization allowing patient to promptly return to activity. Post-operatively, mild loss of great toe flexion strength was noted, which has not been problematic for the patient. At 13 months the patient is without pain or activity limitation.

We present our approach to this unique pathology. Via hindfoot endoscopy we were able to restore function with minimal soft tissue violation. The approach provides decreased risk of woundning and expedited recovery. This case study affirms the versatility and utility hindfoot endoscopy.

Figure 4. Intra-operative endoscopic images. Visualization of posterior osseous protuberance with ankle and subtalar joint via lateral portal (A). Anatomic contour of posterior tibia and talus post-debridement with ankle joint, subtalar joint, and FHL tendon visible. View from the lateral portal (B). Visualization of kirschner wire retraction from lateral portal (C). Osseous debridement of posterior medial ankle with arthrometer visualized from the lateral portal (D). Visualization of debrided FHL tendon and posterior medial ankle from the lateral portal (E).

References