

Tarsal Tunnel Syndrome Secondary to Talocalcaneal Coalition: A Case Report

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INTRODUCTION

Tarsal tunnel syndrome is characterized by compression of the posterior tibial nerve within the tarsal tunnel. Talocalcaneal coalition is an uncommon etiology for this condition. We present a case of tarsal tunnel syndrome secondary to talocalcaneal coalition, highlighting its clinical presentation, diagnostic challenges, and management strategies.

REPORT:

A 25-year-old female presented with medial left foot pain after an episode of ankle sprain. She was diagnosed as having deltoid ligament injury with tibialis posterior tendinopathy and treated conservatively. However, her foot pain was persistent and worsened over the course of a year, exacerbated by prolonged weight-bearing activities. Subsequently, she began complaining of numbness and shooting pain over the plantar aspect of her foot. Clinical examination revealed tenderness along the tarsal tunnel with positive Tinel's sign. There was also a painful bony swelling distal to and posterior to the medial malleolus. Radiographic evaluation demonstrated a talocalcaneal coalition, and CT scan revealed the coalition to be at the posteromedial aspect of the posterior facet, which was otherwise not arthritic. Talocalcaneal coalition resection and decompression of the tibial nerve was done. Examination under fluoroscopy showed that the ankle was stable with valgus stress. Intraoperatively, the tibial nerve was noted being compressed by a bony talocalcaneal coalition. The flexor retinaculum was released, with tibial nerve neurolysis. At three months follow-up, she had significant improvement in symptoms with resolution of neuropathic pain.



Figure 1: Pre-operative ankle xray showing talocalcaneal coalition (red arrow)



Figure 2: Talocalcaneal coalition (white arrow) pushing on neurovascular bundle.

CONCLUSION:

Tarsal tunnel syndrome secondary to talocalcaneal coalition is rare. Imaging and thorough examination are crucial to establish diagnosis. In refractory cases, surgical resection effectively addresses both the coalition and neural compression.

REFERENCES:

1. Hong et al. Tarsal tunnel syndrome caused by posterior facet talocalcaneal coalition: A case report. *Medicine* 99(26):p e20893, June 26, 2020. | DOI: 10.1097/MD.00000000000020893