

TARSAL TUNNEL SYNDROME POST MEDIAL MALLEOLUS FIXATION: A CASE REPORT

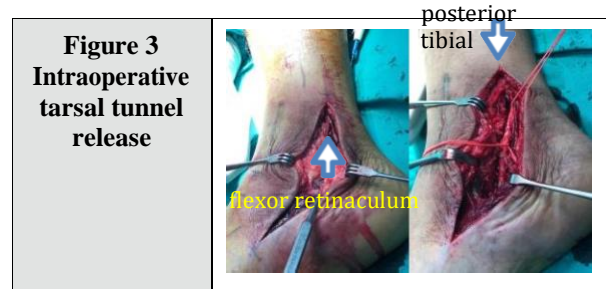
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Introduction:

Tarsal tunnel syndrome (TTS) is a compression neuropathy on the tibial nerve branches over the tunnel. We report a case of post screw fixation of the medial malleolus complicated with TTS.

Report:

A 26 years old gentleman post one-year medial malleolus fixation performed (Fig.2) using 2x4.0mm malleolar screws for isolated medial malleolus fracture (Fig.1) secondary to motor vehicle accident. He developed pain over medial aspect of the right ankle joint, aggravated with prolonged walking and standing and numbness along the tibial nerve distribution. Physical examination revealed positive tinnel sign along the course of the right posterior tibial nerve. Clinical history and physical examination findings were suggestive of TTS. Right tarsal tunnel release (Fig.3) and removal of medial malleolus screw done. Intraoperatively showed flexor retinaculum was compressing on the posterior tibial nerve with minimal surrounding adhesions and united fracture of medial malleolus. Symptoms improved and patient was able to fully weight bear after 2 months of physiotherapy.



Discussions:

The diagnosis of TTS is made by a thorough history and physical examination. Classic symptoms include pain and paresthesia along the distribution of the posterior tibial nerve branches with positive Tinel’s sign³. Several intrinsic factors place trauma and tension across the flexor retinaculum. Complication of ORIF in ankle fracture may cause TTS¹. In these instances, fixation materials may cause irritation to the deltoid ligament and subcutaneous tissue². Irritation of implant towards tarsal tunnel is not common to cause TTS, however the close relation of tarsal tunnel and position of screws may increase chances of developing TTS.

References:

1. Understanding Risk and Complication in management of ankle fracture, Saurabh Sagar Mehta, Indian Journal of Orthopedic, 2014 Sep-Oct; 48(5): 445-452.
2. Isolated Medial Malleolus Fractures: Conventional Techniques Versus Headless Compression Screw Fixation, Tugrul Bulut, MD, The Journal of Foot & Ankle Surgery, 2017.12.005
3. Tarsal Tunnel Syndrome: Diagnosis, Surgical Technique, and Functional Outcome, davids .baillie, foot & ankle international.

