

Tarsal Tunnel Syndrome, Are We Still Aware?

¹Fairuz K, ²Khairul FM, ¹Khadijah N, ¹Kamalruzaman MA

1. Department of Orthopaedic, Hospital Enche Besar Hajjah Khalsom, Kluang, Johor.

2. Pantai Hospital Cheras, Kuala Lumpur.

INTRODUCTION:

Tarsal Tunnel Syndrome was first reported by Keck and Lam in 1962. This syndrome is not as well recognized so there may be a delay in diagnosis. Experimental evidence suggests that the sensory symptoms in these conditions are due to localized ischemia of the nerve within the fibro-osseous tunnels, and that later structural changes are responsible for motor paralysis.

CASE REPORT

We encountered a case of 47 years Malay lady who presented with numbness over the left plantar foot on and off for 3 years with severe paraesthesia ascending to posterior distal leg at insertion of Achilles tendon and tingling sensation.

Examination reveals full power of lower limb and decrease sensation over lateral and medial plantar nerve innervations, left side more compare to right side. Bilateral foot x-ray shows calcaneal spurs and prominent facet of calcaneum. MRI lumbar sacral show stenosis of L4-L5 and L5-S1. MRI bilateral foot show soft tissues edema over ankle. Lumbar stenosis with mild degenerative lumbar spondylosis was made as initial diagnosis.

The pain was not improving with Celecoxib and Pregablin, and she was plan for Laminotomy and spacer insertion at L4-L5 and L5-S1. She was reassess again prior to the operation. Tinel's test positive over the bilateral medial malleolus, tender at Achilles insertion more on left side with no ankle stability involve. Nerve conducting study done and Bilateral Tarsal Tunnel Syndrome was made as revise diagnosis. Patient undergo for Tarsal Tunnel Release.

DISCUSSION

The tarsal tunnel syndrome consists of a complex of symptoms is thought to be due to a compression neuropathy of the posterior tibial nerve within the fibro-osseous " tunnel " that lies beneath the flexor retinaculum on the medial side of the ankle.

The definitive tests for this condition are nerve conduction studies and electromyography. Nerve conduction studies both to the abductor digiti minimi and abductor hallucis are imperative, as only one may be abnormal. The use of electromyography is diagnostically helpful. The early appearance of denervation potentials, complex polyphasic potentials, and changes in the interference pattern representing a neuropathic pattern, support the diagnosis of posterior tibial nerve compression syndrome. Failure of medication treatment is an indication for surgical decompression of the posterior tibial nerve.

CONCLUSION

The tarsal tunnel syndrome is a clinical entity and is probably more often encountered than is recognized. It is easily missed to diagnose even with thoroughly physical examination. Nowadays the Carpal Tunnel Syndrome is well recognized and treated, the same event may evolve in the case of Tarsal Tunnel Syndrome.

REFERENCE

1. Samrendu K.S, Michael G.W, Christopher P.C.: Tarsal Tunnel Syndrome And Its Surgical Treatment
2. Thomas E.G., Alan H.W.: Pathogenesis, diagnosis, and treatment of the tarsal-tunnel syndrome. Cleveland Clinic Journal of Medicine. 1970 January;37(1):23-30
3. Lam, S. J. S.: A tarsal tunnel syndrome. Lancet 2: 1354-1355, 1962.