# A Rare Presentation of Charcot Foot Secondary to Lumbar Radiculopathy: A Case Report

## Case Diagnosis:

Charcot Foot secondary to Lumbar Radiculopathy

## Case Description:

A 52 year old male with a past medical history of a traumatic lumbar spine injury leading to severe, chronic lumbar radiculopathy underwent elective spine surgery. Postoperatively, he developed severe numbness and paresthesias in bilateral legs. The lack of sensation led to repeated injuries to the right foot over a six year period. He sustained significant right metatarsal fractures but did not seek medical attention due to his absence of pain. He developed progressive medial arch collapse leading to the development of Charcot foot with its classic rocker-bottom foot deformity. The patient used a Controlled Ankle Motion (CAM) Walker Boot for ambulation but the foot deformity and gait dysfunction continued to progress. Subsequently, he was treated with extensive surgical fixation of the right foot and presented to acute rehabilitation.

## Discussion:

Charcot foot, or neuroarthropathy, is a condition caused by poor sensory input to the lower extremity muscles involved in maintaining proper foot anatomy. The sensory modality typically lost in this condition includes proprioception in addition to pain and light touch as in the case described above. This sensory deficit can result in fracture, subluxation, and dislocation. Classically, Charcot's Foot is a complication of diabetes mellitus with a 29%-35% lifetime prevalence in diabetic patients with peripheral neuropathy. Other conditions traditionally leading to Charcot foot are alcoholic neuropathy and posterior column disorders due to B12 deficiency and neurosyphilis. The patient described above had a rare presentation of Charcot Foot with limited literature on its pathophysiology.

## Conclusion:

Charcot foot due to neuropathy as a lumbar etiology is a rare presentation of the disease. This case describes the importance of performing a complete sensory examination, including proprioception, in patients with unresolving neuropathy. This is especially important in cases of lumbar radiculopathy due to its high prevalence.