

HYPERMOBILITY AND INSTABILITY OF THE KNEE: A RARE CASE OF CHARCOT'S KNEE JOINT SECONDARY TO SYRINGOMYELIA

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INTRODUCTION:

Charcot arthropathy was first described in 1868 by Jean Martin Charcot as a progressive and destructive joint disease. Charcot osteoarthropathy is a chronic, destructive condition of the joint due to loss of proprioception, pain and temperature perception. Diabetes, polyneuropathy, syphilis, syringomyelia and chronic alcoholism are the main causes of the disease. [1] In this study we present a Charcot arthropathy of the knee secondary to thoracic long segment syringomyelia and multilevel spinal canal stenosis.

CASE REPORT:

A 60 years old gentleman was referred to our department for atraumatic right knee swelling with minimal pain for the past 1 month and unable to ambulate since then. He was diagnosed with cervical myelopathy with right lower limb radiculopathy at the age of 58 and suffered with established peripheral neuropathy. MRI whole spine was done, showed intramedullary lesion at T4 & T5 level with cord expansion and long segment syringomyelia, multiple posterior disc bulge from C4 to C7 levels with grade 1 spinal canal stenosis. On examination of the right knee, revealed moderate swelling, instability, anteriorly translated, hyperlaxity with painless knee joint. Motor system examination revealed wasting of right lower limb. Tendon reflex at knee and ankle were absent with mute plantars. Sensory examination revealed impaired vibration and position in lower limbs. Rest of the examination and review of other systems was normal. Right knee X-rays noted comminuted tibia plateau fracture (Schatzker VI) with 6 D'S i.e destruction, dislocation, disorganization, distention, debris and increased density. In view of above clinical features and investigations patient was diagnosed to have Charcot's knee joint Secondary to syringomyelia. Surgical intervention with TKR/ arthrodesis was offered

to the patient, however patient keen for conservative management with hinge knee brace.



Figure 1&2: Right knee X-Rays of the patient.

DISCUSSIONS & CONCLUSION:

Charcot knee is a rare complication of the spinal cord syringomyelia. Other causes of Charcot knees are diabetes mellitus, neuro-syphilis, familial amyloid polyneuropathy, congenital insensitivity to pain, and repeated intra-articular hydrocortisone injections.[2] Weight bearing on insensitive joints makes them prone for repeated and unnoticed trauma, thereby producing Charcot joint. If not diagnosed and intervened timely, it may result in complications like fractures and joint dislocation as seen in our patient.

REFERENCES:

1. Tomas Kucera, Karel Urban, Pavel Sponer; Charcot arthropathy of the knee. A case- based review, *Clin. Rheumatol.*, 30 (2011), pp. 425-428
2. B. Yanik, S. Tuncer, and B. Seçkin, "Neuropathic arthropathy caused by Arnold-Chiari malformation with syringomyelia," *Rheumatology International*, vol. 24, no. 4, pp. 238-241, 2004.