Extradural Tophaceous Gout As A Rare Case Causing Spinal Cord Compression: A Case Report

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INTRODUCTION:

Gout is a crystal deposition disease that results from chronic elevation of uric acid levels above the saturation point for monosodium urate crystal formation. Gouty arthritis typically affects the peripheral joints of the appendicular skeleton, however occurrence of gout in the spine is rare with minimal cases reported in the literature.[1] The clinical presentations of gouty spine ranges from back pain to quadriplegia.

CASE REPORT:

This 61 years old lady with multiple comorbid and strong family history of malignancy presented to us with history of fall one day prior to admission. On further history, patient complaints of radiating back pain for past one year and worsen for the past two week associated with bilateral lower limb weakness, and fever. Clinically there was spine tenderness at the level upper thoracic region. Neurology examination showed lower motor neuron lesion with bilateral lower limb motor power grading grade 0 and sensory level T3. Peripheral examination showed multiple small joint gouty tophi in bilateral foot and hand. Plain radiograph of thoracolumbar showed spondylotic changes but no fracture seen and MRI of spine showed extradural lesion at dorsal aspect of T5/T6 with spinal cord compression. The lesion is hyperintense on T1W and T2W. Initial working diagnosis was tuberculosis of spine or spine metastasis. Blood investigation showed elevated in infective marker and hyperuricemia, however tumor marker was negative. Subsequently, he underwent decompressive laminectomy and posterior instrumentation. Intra operatively noted a white chalky material tough fibrous mass was found indenting the spinal cord and had no point of attachment. Histopathology confirmed the presence of the gouty tophi.

DISCUSSION:

Pathophysiology of chronic hyperuricemia results in crystals deposition the in joint cavities. The crystals provoke an acute inflammatory response, which in severe cases progresses to form chalky white tophi.[1] By routine light microscopy the tophi appear as extracellular gray material surrounded by fibrous tissue and histiocytes/multinucleated giant cells.[1] Polarized light can be confirmatory by demonstrating the needle-shaped crystals with strong negative birefringence characteristic of gout.[1] Total of 94 article reported and show 88 patients with neurological deficit, 74 (84.1%) underwent surgery.[2] Full recovery of neurological manifestations was observed in 55 patients (74.3%); nine partial recovery, and two patients reported no recovery.[2] Patients without neurological involvement biopsy is suggested as definite diagnosis procedure and can be treated medically after spinal infection excluded.

CONCLUSION:

Gouty arthritis involving spine is rare. The purpose of this case report is to highlight the importance of history taking, clinical examination and relevant investigation in early detection of gouty spine. The early detection of spinal gout may lead to successful medical treatment and less invasive approach than exploration and decompression. Hence, preventing the neurological deficit and poor prognosis.

REFERRENCE:

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