

# Forestier's Disease

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A 37 years old male patient resident of Waki Nagpur was admitted with the history of tingling numbness 10 days prior to admission, weakness in all four limbs, and difficulty in moving the neck side to side. Tingling numbness started in right upper limb first, followed by left upper limb and then both lower limbs. Weakness was also noticed in right upper limb first, followed by lower limbs and left upper limb. On leading questions, patient narrated history of fasciculations in the region of shoulder and forearm in both upper limbs predominantly on the right side. History of root pains, thinning of the upper limbs predominantly in the shoulder region was also present. Examination revealed vital parameters within normal limits, restriction of neck movements more prominent in the side to side direction, shoulder joint movements were grossly restricted and elbow joint examination also revealed limited movements. Distal joint movements were found to be normal. Clinical examination did not reveal joint deformities. Neurological examination demonstrated wasting, prominent in the shoulder region, clasp knife spasticity in all four limbs. Muscle power in upper limbs was grade III, more severe power loss was evident in distal than proximal muscles. Lower limbs examination demonstrated power of grade III. Biceps jerk was absent on both sides, inversion of supinator was present on right side and triceps exaggerated. Knee jerks and ankle jerks were exaggerated and bilateral ankle clonus and patellar clonus was observed. Plantar response were extensors on both sides and fasciculations demonstrated on C5-C6 dermatomes predominantly on the right side.

With the above clinical findings a diagnosis of

extradural cervical cord compression was kept. Accordingly, X-Rays and C.T. Myelography of cervical spine were ordered. Since there was restriction of movements at shoulder and other joints a probable diagnosis of spondyloarthritides was also entertained. X-ray cervical spine demonstrated narrowing of disc spaces, osteophytes and osteosclerosis. X-ray thoracolumbar spine also demonstrated extensive calcification of posterior longitudinal ligaments. X-rays of shoulder and hands also showed osteosclerosis. C.T. Myelography revealed diffuse osteosclerosis with ligamentous calcification involving Posterior longitudinal ligament and ligamentum flavum causing severe bony canal stenosis at the cervical canal. Calcification of anterior longitudinal ligament was present in cervical region. Ossification of Posterior longitudinal ligament is seen in various conditions like Diffuse Idiopathic skeletal hyperostosis, Ankylosing Spondylitis and other polyarthritides, viz. ochronosis, fluorosis, gout and hyperparathyroidism. Present case did not reveal any evidence of sacro-iliac joint involvement, clinically as well as radiologically. Serum calcium, Phosphorus, parathormone and uric acid levels were found to be normal. Fluoride levels from the patient's drinking water source were also estimated and turned out to be normal. Since the calcification of posterior longitudinal ligament was classically demonstrated, causing cervical canal stenosis, resulting in cord compression and involvement of other joints and sparing of sacro-iliac joint, patient was diagnosed to be a case of Forestier's Disease.

Forestier's Disease or DISH is commonly seen in males >50 years of age. It has been associated with the use of retinoids and also DM.

Patients of DISH remain largely asymptomatic until the onset of myelopathy. Mild stiffness, pain and restriction could be presenting symptoms. Development of bony spurs especially "heel spurs" is a common feature of DISH. Spurs in the region of cervical

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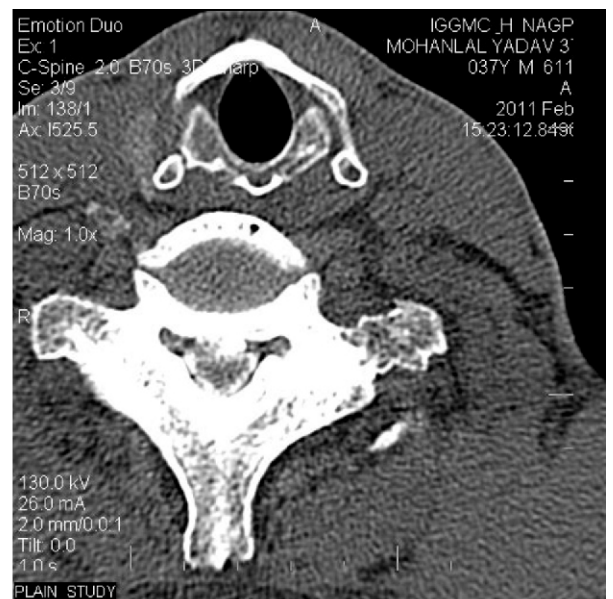
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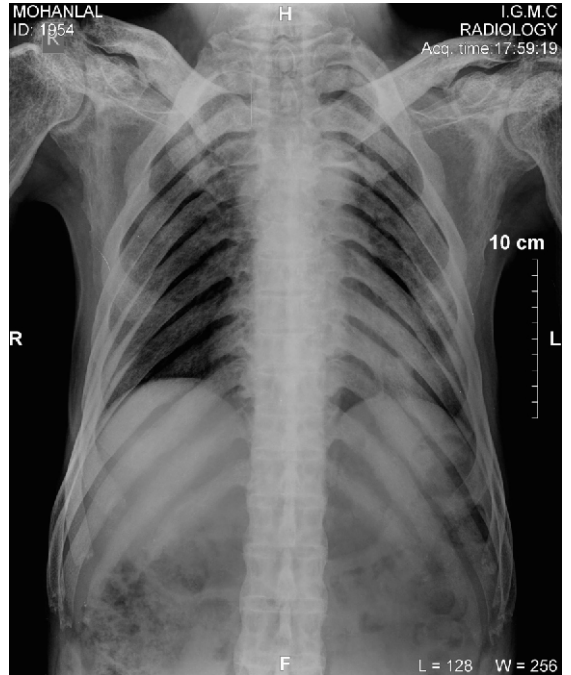
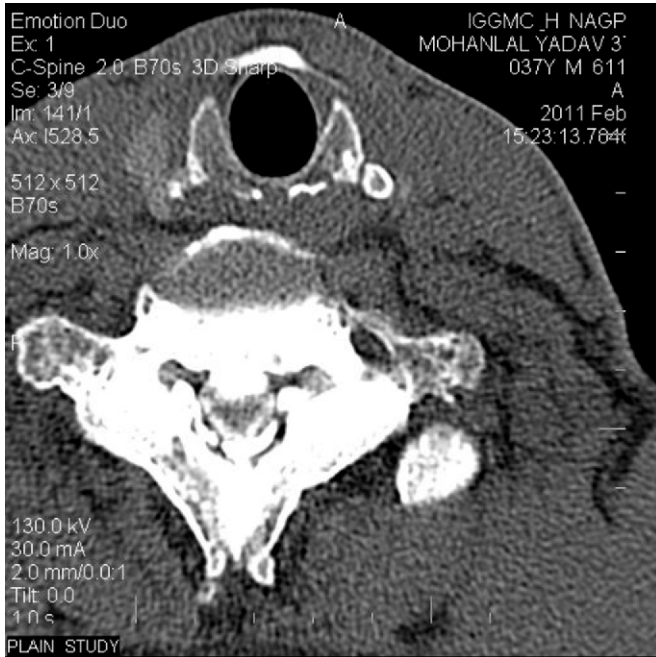
vertebrae could be rare cause of dysphagia.

On imaging the calcification of ligaments along the vertebrae gives a cascading or a “flowing wax” appearance. CT helps to distinguish DISH from the other causes of OPLL.

NSAID'S like Ibuprofen and Naproxen are preferred for treatment of stiffness and pain. At times injectable steroids at the point of inflammation could be needed. It is hoped that minimising inflammation may slow down the process of calcification over ligaments and tendons.

**CT Cervical spine showing demonstrating calcification of posterior longitudinal ligament**





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