

An Unusual Etiology for Intense Pruritus: Os Odontoideum With Atlantoaxial Dislocation

A 10-year-old boy presented with a gradually progressive weakness of the left upper limb and both lower limbs with neck pain for the past two and half years following a fall from a height of about 10 feet. He also complained of intense itching over his left hand for 10 months. Examination revealed left torticollis, spasticity and weakness of the left upper limb and both lower limbs with power 2/5 and 3/5, respectively, a normal sensory examination, and positive cerebellar signs. The left hand had excoriated and crusted nodular lesions with lichenification secondary to chronic pruritus (**Fig. 1**). Neuroimaging (**Fig. 2A-C**) revealed a cranio-vertebral junction anomaly, as detailed in the legend. Nerve

conduction velocity tests were unremarkable. He underwent a surgical correction, following which there was a significant improvement in pruritus. Neuropathic pruritus a potential cause of itching in patients with craniovertebral junction anomalies, and correction of underlying anatomical lesions improves neuropathic pruritus.

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Fig 1 Left hand with excoriated and crusted nodular lesions with lichenification secondary to chronic pruritus

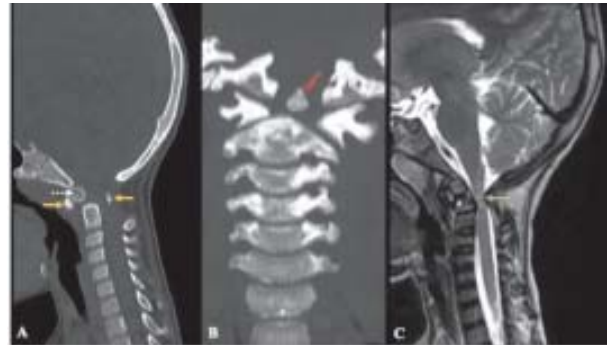


Fig 2 Sagittal CT spine (A and B) and Sagittal MR Spine (T2W sequence) images show Os odontoideum (dashed arrow) with anterolisthesis of the whole of C1 and Os odontoideum over C2 vertebral body, anterior displacement of anterior and posterior arches of the atlas (C1) (yellow arrow) and rotatory atlantoaxial joint subluxation (red arrow in B). The resultant significant narrowing is seen at the C1-C2 level with compression and kinking of cervicomedullary junction with altered signal intensity (green arrow in C).