

# Ossified Ligamentum flavum causing myelopathy in ankylosing spondylitis

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Ankylosing spondylitis (AS) is an autoimmune spondyloarthropathy, primarily affecting the peripheral and axial joints of the body. Compressive myelopathy in AS is an infrequent, late complication and usually results from trauma, dislocation of vertebrae's or surgical intervention.<sup>[1,2]</sup> A 48-year-old male with seronegative AS of eight year duration, presented with insidious onset of shooting pain radiating from low back to both feet's with ascending numbness up to the groin starting in right foot, later involving left without any decreased sensations since 6 months. Progressively, he had stiffness of both lower limbs with mild proximal weakness, swaying while walking. He denied bladder symptoms. Examination revealed severely restricted neck movements and truncal mobility, lower limb spasticity, mild proximal weakness, brisk reflexes, extensor plantars, sensory ataxia and a sensory level at D 10 dermatome. Radiographs of cervical and thoracolumbar spine showed features of AS [Figure 1]. MRI dorsolumbar spine showed thickened and ossified ligamentum flavum (OLF) compressing the cord at D10-11 vertebral levels [Figure 2]. In view of compressive myelopathy due to OLF, he underwent decompressive surgery with complete improvement. OLF is seen in AS, fluorosis, disorders of calcium and phosphorus metabolism, although, in most of the cases etiology remains unknown. As with compressive myelopathy secondary to OLF is rare and decompressive surgery is helpful in relieving symptoms as our patient.<sup>[3]</sup>



**Figure 1:** Radiograph cervical spine lateral view showing straightening of cervical spine with syndesmophytes (arrow) with complete fusion of vertebral bodies



**Figure 2:** Sagittal T2 and T1 WI (a,b) showing ossified ligamentum flavum (hollow white arrow) at D10-11 level indenting thecal sac, focal T2 signal increase in cord secondary to mass effect of OLF. Triangular, sharply marginated and non erosive signal abnormality on T1, as well as T2 images (arrows in a and b) at anterior corners of multiple vertebral bodies suggesting 'Romanus lesions'. Severe canal stenosis is best seen on axial images (c, d)

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