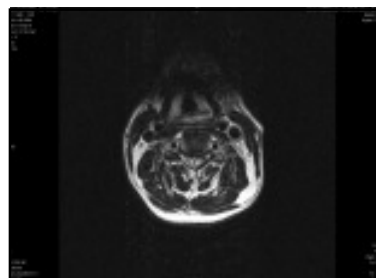




## CLINICAL IMAGES

## MRI Feature of Cervical Spondylotic Amyotrophy: Snake Eye Appearance

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**Fig 1a - Sagittal T2-w MRI Shows Spondylotic Changes at Multiple Cervical Level with Narrowing of Spinal Canal and Linear Hyperintense Signal within the Spinal Cord. Fig1b- Axial T2w MRI Shows Bilateral Small Symmetric Areas of High-Signal Intensity which Appeared to be in the Anterior Horns Resembling "Snake-Eyes" Appearance**

A 56 year-old-man complained of progressive weakness of bilateral upper limb for the past 2 years. He did not complain of pain, paresthesias, or sensory loss. There was no history of trauma or other significant past medical history. Neurological examination revealed asymmetrical muscle atrophy, predominantly on right side. Deep tendon reflexes were decrease in both arms and fasciculation was noted in right biceps muscles. Lower extremity motor examination revealed normal tone, bulk and power of muscles with flexor planter response. Sensory examination was normal in both upper and lower limb. Cervical spine radiographs showed spondylotic changes. Magnetic resonance imaging (MRI) was performed with a 1.5-Tesla imaging system. Multilevel spondylotic changes was seen on sagittal T2 w image with compression on spinal cord, which was most severe at C3-C4 level associated with a linear hyperintense signal was seen within the spinal cord from C3 to C5 level (Fig 1a). On axial T2w MRI, small symmetric areas of high-signal intensity were observed within the spinal cord at same level which appeared to be located bilaterally in the anterior horns resembling "snake-eyes" appearance (Fig 1b). Surgery was planned but patient refused it. Conservative treatment, including the immobilization of the neck was started; however there was no significant improvement in his motor symptoms. Cervical spondylosis is a common degenerative condition involving cervical spine

and intervertebral discs. The most common symptoms are neck and shoulder pain, sometimes associated with tingling and numbness of arm and hand. Cervical spondylosis can rarely cause pure muscle weakness and atrophy without any significant sensory involvement and this condition is called as cervical spondylotic amyotrophy (1). It is so called as the clinical manifestations are often confused with motor neuron disease. Reason for this pure motor involvement is controversial and whether it is due to selective damage to anterior horn cells or ventral roots is not clearly understood; however it is thought to be caused by circulatory insufficiency (2, 3). MRI is important for the diagnosis and demonstrates spondylotic changes in cervical spine along with bilateral parallel linear hyperintensity within the anterior horn cells which has "snake-eyes" appearance on axial image. These signal abnormalities are thought to represent irreversible cystic lesions. MRI findings with clinical correlation helps arrive at the appropriate diagnosis.

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