

Anterior Spinal Artery Infarct

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FIGURE 1: BACKGROUND

A 27-year-old female presented with sudden onset of benumbed sensation and weakness of both lower limbs. On examination, she had hypotonia of the left lower limb. Her power examination revealed asymmetric weakness as she had a power of 0/5 in the left lower limb and 4/5 in right lower limb based on Medical Research Council (MRC) grading. All lower limb deep tendon reflexes were exaggerated and bilateral plantar reflexes were extensor. She lost pain, crude touch, and temperature sensations below T10 while position sense and vibration sense were preserved.

Magnetic resonance imaging (MRI) spinal cord T2 sagittal section showed linear hyperintensity from D7 to D10 (Fig. 1A), T2 axial showed hyperintensity in the anterior portions of the spinal cord (Figs 1B and C), with diffusion restriction (Fig. 1D) suggestive of spinal cord infarct. Nearly 1.2% of strokes involve the spinal cord.¹ Studies reveal that spinal cord infarct can occur from the first decade to the tenth decade. The average age of presentation ranges from 50 to 70 years.¹ Anterior spinal artery is the most common artery involved in spinal cord infarctions amounting up to 87.2% in some studies.¹ The shortest time required for diffusion abnormalities to occur is 3 hours.² While time taken for T2 hyperintensities to occur is 8–12 hours.² Bilateral symmetric involvement in anterior spinal artery territory is observed in only 40% of cases. The clinical presentation often varies depending upon whether it is unilateral, bilateral infarctions.³ The presence of T2 hyperintensity within the

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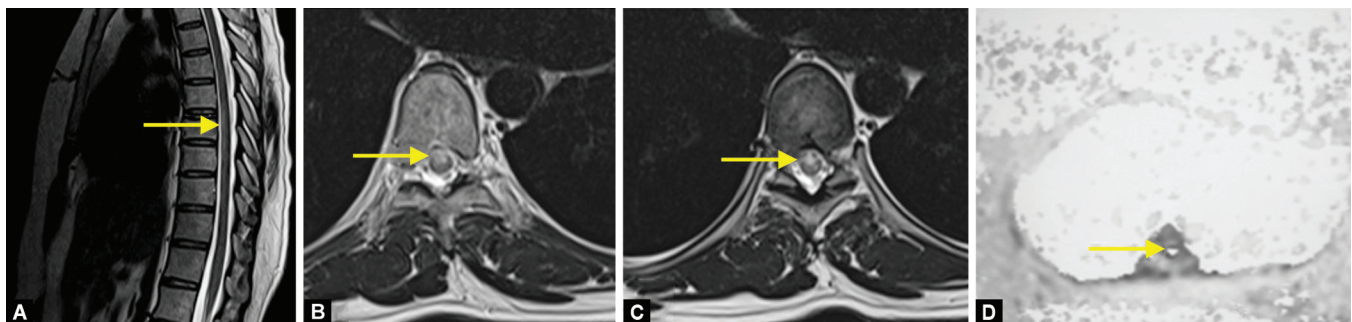
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cord in MRI suggests infarction, particularly if diffusion restriction could be demonstrated as in our case. The technical difficulty in obtaining diffusion-weighted imaging sequence of the cord is largely due to cerebrospinal fluid (CSF) flow-induced artifact.

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Figs 1A to D: (A) MRI spinal cord T2 sagittal; (B and C) Showing faint linear hyperintensity extending from D7 to D10; (D) T2 axial section showing hyperintensity in the anterior portion of the cord with diffusion restriction