

## A Case report of spinal cord injury without radiologic abnormality after lumbar neuroplasty

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Spinal cord injury without radiologic abnormality (SCIWORA) is the spinal cord injury characterized by clinical findings of spinal cord dysfunction with apparently normal x-ray images. SCIWORA is rare in adults, and typical cause of adult SCIWORA is trauma like falls, sports injury and vehicle collisions. However, we reported a case of SCIWORA following neuroplasty that is not associated with trauma. A 28-year-old man presented with L5-S1 lumbar disc extrusion, and discectomy was performed but there was no improvement in symptoms. Then neuroplasty was also performed because of additional radiating pain of both lower limbs. However, immediately after neuroplasty, paraplegia and sensory impairment was occurred. Initially the bilateral lower motor was a trace but voluntary anal contraction was preserved. The last intact level of sensory corresponded to T7. There was no specific finding on the lumbar and thoracic magnetic resonance imaging (MRI) including diffusion weighted images. Nerve conduction studies and evoked potential studies also showed no specific abnormalities. In the needle electromyography, no abnormal spontaneous activity was observed. In addition, cervical and brain MRI, and cerebrospinal fluid analysis was done, but there was no specific abnormalities. Symptoms persist without improvement even after 4 months of onset. It is impressive that young men without degenerative change had SCIWORA regardless of trauma. Further studies on the mechanism of SCIWORA are warranted.



Fig 1. Lumbar saggital image of T2 weighted magnetic resonance image of the patient



Fig 1. cervicothoracic saggital image of T2 weighted magnetic resonance image of the patient