

NON-TRAUMATIC DISCOGENIC BROWN-SÉQUARD SYNDROME PRESENTING WITH ACUTE STROKE SEMIOLOGY

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Introduction: Spinal cord hemisection or Brown-Séquad syndrome is a widely known, yet rarely encountered constellation of neurologic signs related to spinal cord lesions. Ipsilateral paresis, loss of position, vibration sense and tactile discrimination and contralateral pain and temperature sensation deficit below the lesion are the hallmarks. This is typically caused by penetrating trauma or neoplasia with only 37 cases of discogenic etiology reported in the English language literature as of 2009.

Case Description: A 54-y.o.man with hypertension and hyperlipidemia presented 5hrs after sudden onset right arm and leg weakness preceded by acute neck pain while exercising. The weakness primarily affected arm extensor and leg flexor muscle groups, accompanied by mild ataxia, without dysarthria or cranial nerve deficits. Screening sensory exam was normal. Brain CT and MRI revealed no ischemic or hemorrhagic stroke. Vessel imaging was negative for cervical arterial dissection. Detailed repeat exam revealed additional right-sided decrement of proprioception and modest impairment of temperature sensation on the left side of the trunk, with a T1 level. C-spine MRI revealed moderate spinal canal stenosis from C3-C4 through C5-C6, with C3-C4 disc protrusion worse on the right, with spinal cord contusion. Following a dexamethasone taper and a 15-day rehabilitation course, the patient was discharged remarkably improved.

Discussion: This is a case of acute non-traumatic Brown-Séquad syndrome. Its discogenic etiology is atypical and diagnosis relied on thorough exam. It highlights the need for the practicing Neurologist to think "outside the box", emphasizing the significance of detailed repetitive neurologic examination as a diagnostic tool.