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Unstable Cervical Spine Fracture Triggered by a Congenital Neurodegenerative Disorder

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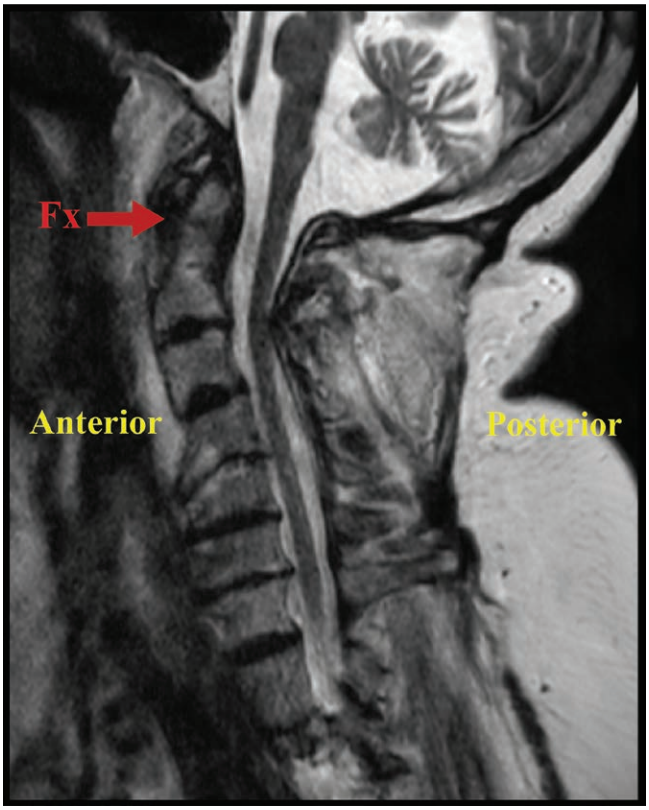

MAGNETIC resonance imaging of the cervical spine was performed in a patient with spinocerebellar ataxia type 2, who required surgery after a fall. It demonstrates a fracture at the base of the odontoid process of the C2 vertebra (type 2, labeled *Fx*) that was considered unstable. Also noted is a hypointense area posterior to the fracture that represents spinal cord edema. Patients with unstable cervical spine fractures who require intubation present a challenge, as mobilization of the spine during instrumentation of the airway has the potential of causing or worsening spinal cord injury. All airway maneuvers can produce some degree of cervical displacement (and none are perfect); therefore, the optimal intubation technique is debatable. Many practitioners consider awake fiber-optic intubation to be the safest method, particularly for elective procedures.[1] Manual in-line stabilization is an alternative, as it reduces cervical extension during laryngoscopy. Direct laryngoscopy without stabilization has been associated with spinal cord injuries and should be avoided.[2] Spinocerebellar ataxia type 2, a rare autosomal-dominant disorder, is characterized by atrophy of the cerebellum, brainstem, spinal cord, and brain cortex. Symptoms start in the third decade and include progressive ataxia, dysarthria, and cognitive decline. As the disorder worsens, patients are at risk of falling.[3] Preexisting neurologic deficits should be documented to avoid erroneous attribution of cord injury. Involuntary movements and impaired cognition may complicate an awake intubation.

Competing Interests

The authors declare no competing interests.

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