

<b>Case</b>	(754) Tetrapparesia due to fracture with complete displacement of vertebral spine after an unfortunate horse drop
<b>Authors</b>	
<b>Centre</b>	

J. Gutiérrez Vázquez, L. Pérez Sánchez, V. Fernández Cisneros, J. Gómez Sánchez.

Hospital General De Segovia.

## CASE PRESENTATION

A 61-year-old came to emergency after an accident with his horse. He had been destabilized and he fell down with his head first and putting his arms to protect himself without hitting his head directly. After falling, he says he has not lost consciousness. He has been on the floor about 5 hours until he has been found by his family.

He said during this period of time he was unable to get up. No headache, no dizziness, no nausea, no rib pain, no dyspnea, no sphincter relaxation was reflected. With the suspicion of injury of cervical spine a TC was made quickly and we could confirm the diagnosis of vertebral fracture with significant trauma spine associated.

## DISCUSSION

Knowing the mechanism of spinal fractures is necessary to be alert and react quickly in these situations. They are usually the result of significant trauma to a normally formed skeleton, or the result of trauma to a weakened spinal column.

The cervical spine is susceptible to injury because it is highly mobile with relatively small vertebral bodies and supports the head which is both heavy and acts as a lever. Fulcrum of movement is different in children than adults, C2/3 compared to C5/6, respectively.

The most frequent sites of involvement are the lower-middle cervical spine and the thoracolumbar transition

Forces of great magnitude and especially those with a torsion element carry to ligamentous ruptures and bone lesion or displacement.

Neurological damage can be caused by edema or spinal hemorrhage, fissure or spinal cord disruption, spinal cord compression (by bone

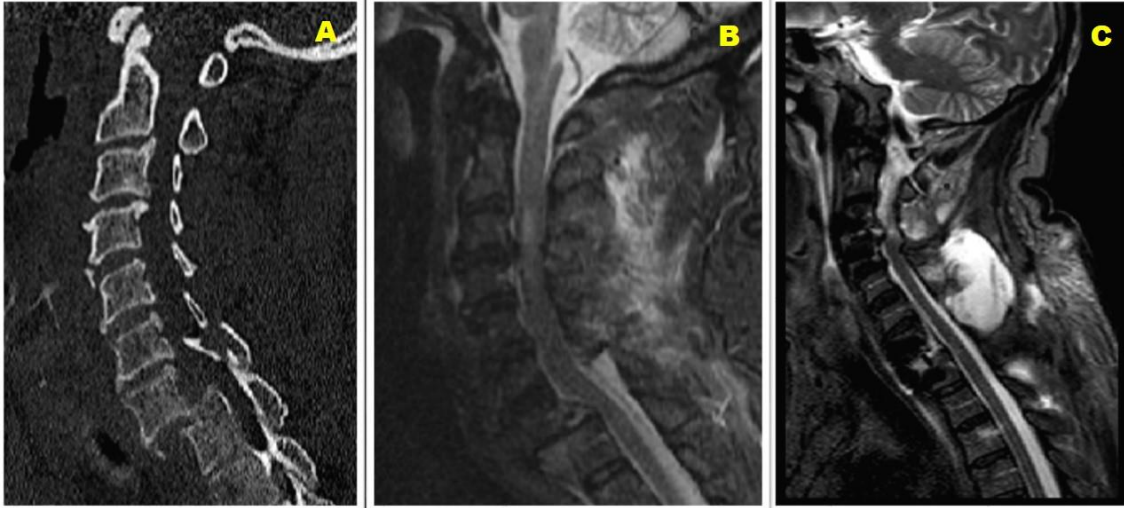
The most important thing for the radiologist is to detect ligament complex injury posterior, which makes the injury

There are many types of cervical spine fracture, some of which are unstable; general indicators of instability include: more than one vertebral column involvement; increased or reduced intervertebral disk space height; increased interspinous distance; facet joint widening and vertebral compression greater than 25%.

## CONCLUSION

MRI has revolutionized the diagnosis of spinal cord damage: it allows to detect and typify the acute spinal cord injury

The importance of MRI in spinal cord injury lies in the detection of spinal compression due to bone, disc or epidural hematoma lesions, as well as presence of an unstable lesion that could cause / worsen a spinal cord injury, that allows to establish the necessity of surgical intervention.



TC SAGITAL (A) MRI T2 STIR (B) MRI T2 STIR (C). Fracture of the vertebral bodies of C6, C7 and D1, with anterolisthesis grade IV of C7 on D1 with decrease of the spinal canal diameter in this location ( Figures A ; B ) Postoperative results Anterior fussion C3-C4 and C7-D1 and posterior C5-D3. Subsequent release of the channel in segment C6-D1. Vertebral bodies are correctly aligned. Normal size of the central spinal canal, no bone fragments are identified inside. (Figure C)

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