

Case	(711) Spine fracture in ankylosing spondylitis
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CASE PRESENTATION

59 years old male diagnosed with HLAB27+ ankylosing spondylitis in 1985 involved in a motor vehicle collision. At the moment of the accident scheduled for surgery after being diagnosed with a C5-C6 cervical fracture that went unnoticed for at least two months.

The sagittal spine computed tomography (CT) images reveal a hyperextension fracture pattern of the C7 vertebral body (red arrow) extending diagonally upwards and through posterior elements with anterior displacement and separation of the proximal spine as well as extensive hyperdense material in the spinal canal indicating hematoma (green arrow). Additionally, a C5-C6 disk fracture (blue arrow) is demonstrated, being the fracture edges sclerotic, as it is a subacute fracture.

As manifestations of the ankylosing spondylitis bridging syndesmophytes, (which cause the fusion of the vertebral bodies), and diffuse ankylosis of the facet joints can be seen in the volume rendering image (yellow arrows).

DISCUSSION

Ankylosing spondylitis (AS) is a chronic inflammatory disease of the axial skeleton and sacroiliac joints. The inflammation causes cartilage and bone erosion that lead to new bone formation and sclerosis, which eventually advances into ankylosis of the vertebral bodies, altering the biomechanics of the spine, making it more prone to fracture, even as a result of minor impacts. The increase in bone resorption and inadequate bone formation causes osteoporosis, which adds to the greater risk of spine fracture.

In all, patients with AS are seven times more likely to suffer a spinal fracture in a traumatic event, with its added neurological complications. Hyperextension is the most common mechanism of injury, being cervical fractures more common (from C5 to C7 and C7-T1), and fracture pattern is more often transverse, passing through the disk space, as the calcified disk is the weakest link along the ankylosed spine.

CONCLUSION

Due to the increased risk of spinal fractures, a CT scan should be performed when AS patient presents with acute back pain or minor trauma, as a fracture should be suspected until proven otherwise.



BIBLIOGRAPHY

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