POST-TRAUMATIC LATERAL INSTABILITY OF THE CERVICAL SPINE

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Instability following sagittal distraction and rotational injuries of the cervical spine has been widely reported. We here report a case of post-traumatic segmental instability in the coronal plane.

Case report. A 66-year-old farmer presented with painful torticollis having fallen into a ditch the previous day. He experienced immediate neck pain, but did not lose consciousness. He had a left temporal contusion and a left-sided torticollis. All neck movements were markedly limited, but there was no neurological deficit.

Lateral radiographs showed loss of the normal cervical lordosis, and spondylosis with narrowing of the C3/4, C4/5 and C5/6 disc spaces. In contrast the C6/7 disc space appeared widened (Fig. 1), and an anteroposterior view showed left lateral divergence at C6/7 with a 20° tilt (Fig. 2); on left lateral flexion this reduced completely (Fig. 3).

He was treated for three weeks in halter traction elsewhere before being referred to us. We performed a posterior fusion of C6/7 in the reduced position, with interspinous wiring and with autogenous cancellous grafts harvested from the posterior iliac crest. Fusion was radiographically confirmed at eight weeks and lateral bending views showed no residual instability.

Discussion. The contusion on the left side of the head suggests that a lateral force was applied to the head and cervical spine. Theoretically a pure lateral force should at some point lead to ligamentous disruption. The intertransverse ligament, ligamentum flavum, facet joint capsule and annulus fibrosus would all have to be disrupted to produce instability and displacement. We have found no previous report of post-traumatic lateral cervical instability despite an extensive literature survey and a Medline search.

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