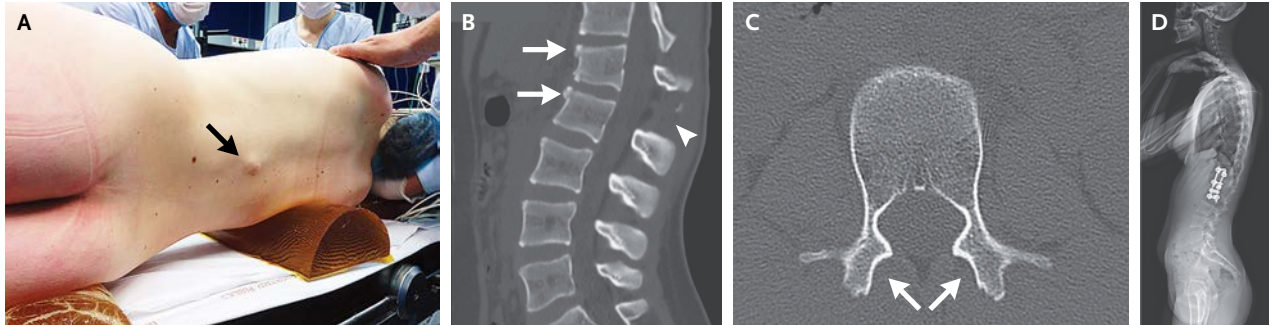


IMAGES IN CLINICAL MEDICINE

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Spinal Fracture and a Widened Interspinous Gap



A 14-YEAR-OLD GIRL PRESENTED TO THE EMERGENCY DEPARTMENT AFTER a car accident; she had been wearing a lap–shoulder seat belt. She had severe back pain but had normal strength and sensation of touch in her legs; she reported no paresthesias. Palpation of the lumbar spine revealed prominence of the spinous process of the first lumbar vertebra (Panel A, arrow) and an increased gap between the first and second lumbar spinous processes, findings that aroused suspicion of a flexion–distraction injury. Computed tomography revealed disruption of the ligaments in the posterior column (Panel B, arrowhead) and the middle column, as well as disruption of the L1–L2 intervertebral disk in the anterior column. There were also fractures of the anterosuperior aspects of L1 and L2 (Panel B, arrows) and dislocation of the L1–L2 facet joints (Panel C, arrows; the inferior articulating facets of L1 are absent). These fractures are characterized by violent flexion, with all elements posterior to the axis of rotation submitted to distraction forces; the fractures are unstable and require surgical treatment. The patient underwent T12–L2 fusion (Panel D) and was pain-free 4 months after surgery. She was authorized to return to swimming 4 months after surgery and to all sports activities 2 months later.

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