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IMAGES OF SPINE CARE

Congenital odontoid process separation with atlantoaxial dislocation associated with Klipple-Feil syndrome and cervical angular kyphosis secondary to C6 wedging vertebra

A 14-year-old boy presented with a 1-month history of a bulge on the back of the neck, without pain or neurologic symptoms. X-ray and computed tomography scans showed a complete dislocation of the atlas with respect to the axis and a separated odontoid process with a posterior fusion of C2–C3 and wedge deformity with kyphosis at C6. Magnetic resonance imaging suggested a narrowed spinal canal at the level of atlas-axis and C6 (Fig. 1). Diagnoses were congenital odontoid process separation with atlantoaxial dislocation associated with Klipple-Feil syndrome and cervical kyphosis [1–2]. A C1–C2 reduction with decompression and a C6 hemivertebra reaction with anterior fusion was performed (Fig. 2).

References

[1] Shiba R, Murota K, Kondo H, Honma G. Cervical congenital kyphosis with atlantoaxial dislocation. Spine 1993;18:762–3.

[2] Li Z, Zhang H, Li X, Liu X, Huang Y, Wu A. Traumatic atlantoaxial dislocation with an old Type II odontoid fracture. Spine J 2014;14:2518–20.

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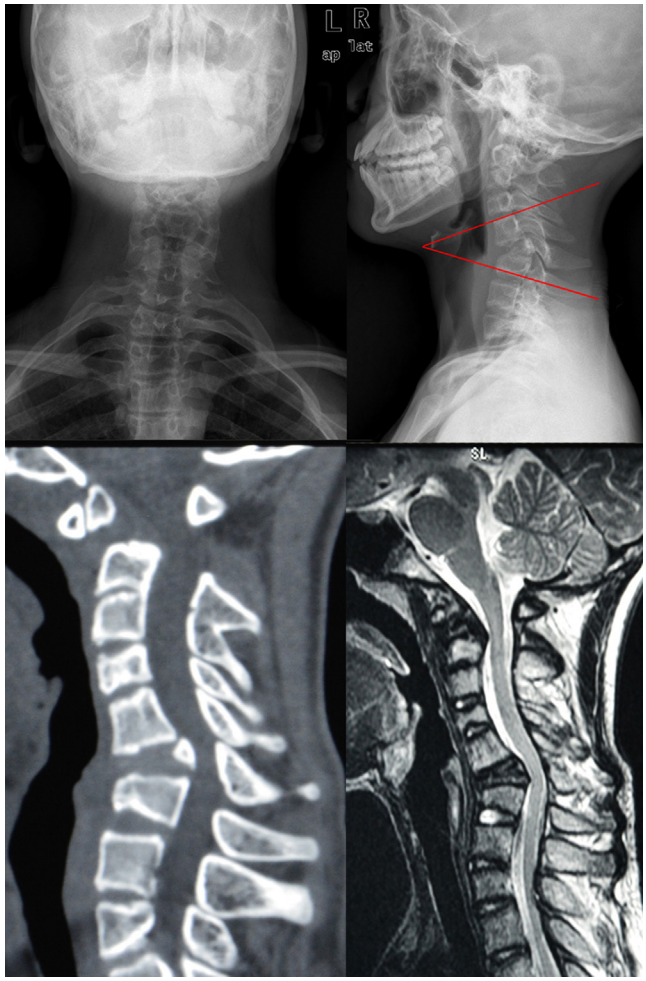

Fig. 1. A 14-year-old boy with back neck bulge and no symptoms. X-rays showed a C6 wedging vertebra leading to a cervical angular kyphosis with a degree of 36° resulted in cervical instability. CT presented a separated odontoid process and a complete dislocation of the atlas with respect to the axis associated with Klipple-Feil syndrome, simultaneous with a C6 wedging vertebra. MRI suggested a narrowed spinal canal at the level of atlas-axis and C6.

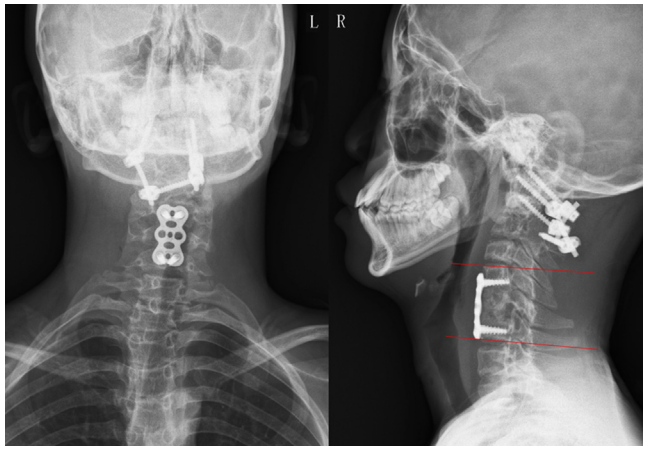

Fig. 2. Postoperation X-ray.