



Child hemivertebra combined with butterfly vertebra of the cervicothoracic junction mimicking traumatic burst fracture

A 4-year-old boy presented with acute onset of neck pain, following a fall at home, without radiation pain or limbs weakness. At the emergency department, cervical spinal lateral radiograph suspected a C7 burst fracture (Fig. 1). Computed tomographic scan demonstrated the C7 hemivertebra with an abnormal complementary C6 vertebral shape and T1 butterfly vertebra (Fig. 2). In addition, the intervertebral disc has irregular density continuous with discs above and below the butterfly vertebra (Fig. 3). His symptom resolved with conservative treatment and cervical collar fixation.



Fig. 1. Lateral radiograph of the cervical vertebra showing wedging of the C7 body which can be easily misinterpreted as a burst fracture.

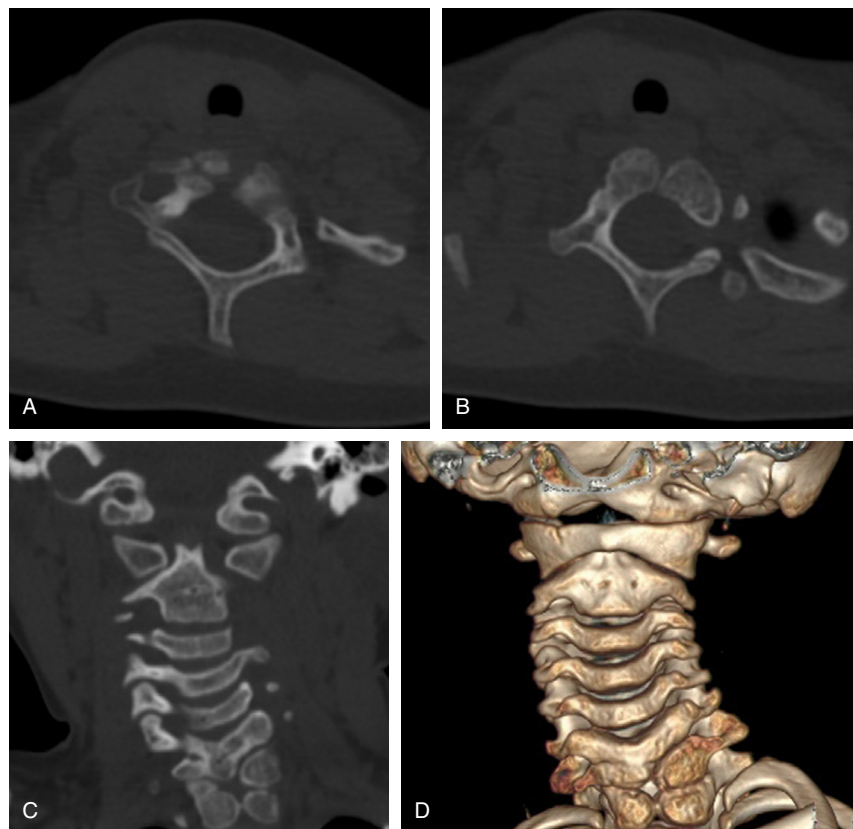


Fig. 2. Axial computed tomographic scan showing the lack of right lateral half at the C7 level (A) and the sagittal cleft at the T1 level (B). The coronal view confirming the presence of C7 hemivertebra with abnormal complementary C6 vertebral shape and T1 butterfly vertebra (C). The 3-D reconstruction image showing the vertebral anomaly clearly (D).

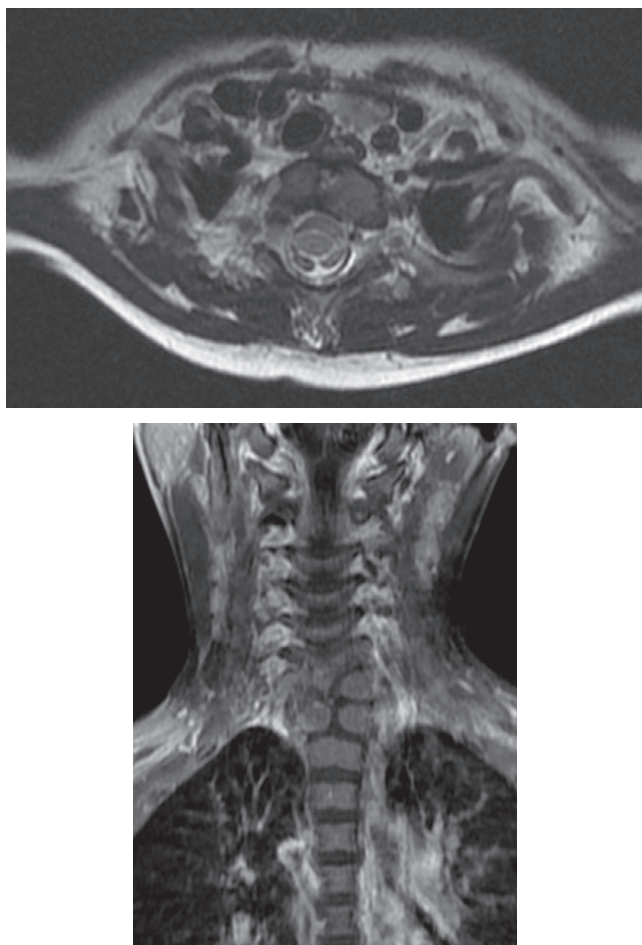


Fig. 3. Axial magnetic resonance imaging showing the continuous high signal intensity with discs above and below the abnormal vertebral body through the sagittal cleft (Top). The coronal view showing no other spinal anomaly in the upper thoracic spine (Bottom).

The hemivertebra and butterfly vertebra commonly occur in the thoracic and lumbar spine, respectively. Usually, it may associate with complex congenital diseases, such as Pfeiffer syndrome, Jarcho-Levin syndrome, Crouzon syndrome,

Alagille syndrome, and VACTERL association [1–3]. Fortunately, in our case, there was no above anomaly. Hemivertebra combined with butterfly vertebra is very rare and easily confused with burst fracture in the lateral view [4,5]. It may alter the stability of the spine, causing atypical back pain or increasing the possibility of disc herniation in the future [1,2].

References

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