Clinical picture

Sellar spine: a rare cause of T1 signal hyperintensity and apparent pituitary enlargement

A 16-year-old female with a history of congenital pulmonary valvular stenosis and postural orthostatic tachycardia syndrome, presented with an 8 month history of recurrent syncope, blurred vision and headaches. On clinical examination she was of slight build, euthyroid and had normal fields of vision and acuity. Magnetic resonance imaging (MRI) of her brain, revealed an apparently enlarged anterior pituitary gland measuring 14 × 8 × 9 mm. There was peripheral T1 signal hyperintensity in the left posterior aspect of the pituitary fossa and downward sloping of the floor of the pituitary fossa. No extension to the cavernous sinus on either side was seen. Endocrine testing showed intact anterior pituitary function. Pituitary Computed Tomography (CT), to assess for possible calcification, revealed a small bony spur (Figure 1), arising from the dorsum sellae projecting anteriorly into the pituitary gland. This co-incidental finding was felt not to be the underlying aetiology of her headaches. This rare congenital development of bone known as a sellar spine is a midline spur that originates from the inferior aspect of the dorsum sellae and projects anteriorly into the pituitary gland. It is thought to correspond to a remnant of the notochord and may contain bone marrow which results in the T1 signal hyperintensity, the lesions tend to be 4 mm in length, as in our patient. This case demonstrates an unusual cause of T1 signal hyperintensity in the pituitary gland with apparent pituitary enlargement, CT pituitary was helpful in clarifying the cause.

Figure 1. Sagittal reconstruction of a CT scan of pituitary fossa showing a 4-mm bony spur (arrow) arising from the dorsum sella projecting anteriorly.

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Conflict of interest: None declared.

References