Letter to the editor in response to Clinical Picture: Facial nuclear degeneration on MRI in bulbar onset amyotrophic lateral sclerosis

Sir,

Recently, Rajan et al. reported a case of amyotrophic lateral sclerosis (ALS) with bulbar symptoms (Q J Med 2013; 106:875–6).

Although not labelled, the authors describe focal hyperintensities on axial T2-weighted magnetic resonance (MR) imaging in the lower pons and assert that these are located ‘in the region of facial nerve nuclei bilaterally’. Furthermore, the inference in the report is that these findings represent ‘extensive nuclear damage’ which might account for the patient’s symptomatology. Certainly this would be a fascinating and previously unreported imaging finding in ALS.

We contend that these bilateral ‘lesions’, as depicted, are in fact pseudolesions commonly observed on axial T2-weighted MR images of the brain at the level of the pontomedullary junction and should not be mistaken for pathology. These triangular bilateral foci typically have a convex posteromedial margin, reflecting the contour of the inferior cerebellar peduncle, and are the result of ‘partial voluming’ the cleft of cerebrospinal fluid which insinuates between the middle and inferior cerebellar peduncles. These ‘pseudolesions’ are variably conspicuous or absent in different subjects, depending on the angle of the imaging plane and the slice thickness and spacing parameters, but are a normal anatomic structure.

The motor nucleus of the seventh cranial nerve is sited dorsomedial to the depicted lesions and slightly rostral to the images provided. At the level of the motor nucleus, a shallow focal convexity at the paramedian fourth ventricular floor, the facial colliculus, should be evident but is not visualized on the provided images.

We would be interested to know whether there was any signal abnormality on image slices rostral to the pontomedullary junction in the region of the facial motor nucleus? As this has been reported as an ostensibly unique case, it is very important to establish the veracity of the imaging findings, as the lesions which are depicted are a commonly observed normal finding.

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