

Isolated peripheral facial nerve palsy in multiple sclerosis

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DESCRIPTION

A 63-year-old man, who was on treatment with interferon beta-1a for relapsing remitting multiple sclerosis for the last 14 years, presented with a new isolated right-sided lower motor neuron facial palsy. He was diagnosed with a right-sided Bell's palsy, and subsequently he was commenced on oral prednisolone 60 mg daily for 5 days, followed by a taper, and made full recovery.

MRI of the brain was performed 1 month after presentation showed a new demyelinating lesion at the right side of the pons (figure 1). Based on the MRI finding, the diagnosis was reviewed and changed to multiple sclerosis relapse, and his treatment was escalated to oral fingolimod.

Imaging of the brain in isolated peripheral facial palsy may be normal, demonstrate characteristic

labyrinthine enhancement in Bell's palsy, or abnormal signal change in the pons, for example, haemorrhage.

Multiple sclerosis is a rare cause of isolated cranial neuropathies, occurring in approximately 1.6% of all patients. The incidence of peripheral facial nerve palsy in patients with multiple sclerosis is estimated at around 0.2%.¹ However, the assessment may identify features suggestive of other brainstem dysfunction such as eye movement disorder and ataxia.

Brain imaging should not be performed routinely for patients with new-onset Bell's palsy.² However, MRI of the brain should be considered in patients who demonstrate atypical neurological manifestations outside the territory of the facial nerve.

Learning points

- ▶ Peripheral facial nerve palsy can be caused by a brain stem lesion, for example, pontine haemorrhage or demyelination plaque.
- ▶ Peripheral cranial neuropathies can occur in multiple sclerosis, but usually other signs of brainstem involvement can be detected.
- ▶ Brain imaging should be considered for patients with peripheral facial nerve palsy who are found to have atypical features.

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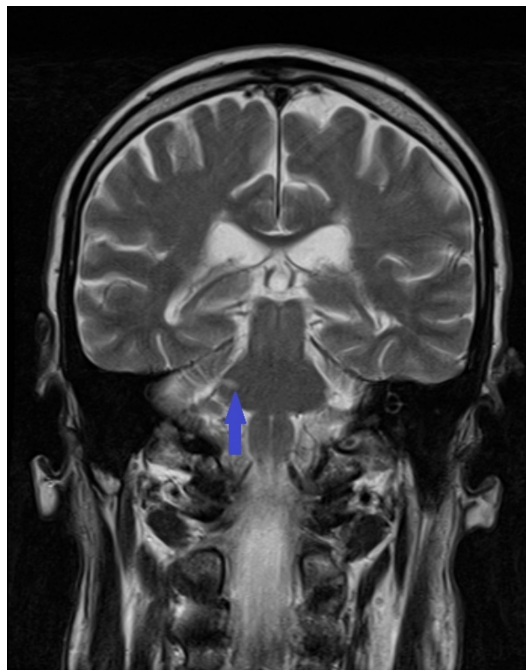


Figure 1 Coronal T2 MRI of the brain showing a new small ovoid focus of hyperintensity in the right side of the pons (arrow).



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