

Reversible Unilateral Tongue Border Atrophy Associated With Anti-Acetylcholine Receptor Antibody-Positive Myasthenia Gravis

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Figure 1 Irregular and Reversible Tongue Atrophy



Marked atrophy of the right tongue border was observed 9 months after the onset of myasthenic symptoms, with bulbar manifestations not responding to initial therapy (A). Progressive resolution of the atrophy was noted at 6 months (B) and 18 months (C) after clinical remission.

A 58-year-old man with no personal or family history of neuromuscular disorders presented with asymmetric, fluctuating eyelid ptosis, vocal fatigue, nasal regurgitation, tongue mobility issues, and fatigable appendicular weakness. Low-frequency repetitive nerve stimulation of the accessory nerve revealed a significant (11%) and reproducible decremental response. Anti-acetylcholine receptor (AChR) antibodies (25.68 nmol/L) were detected, with no anti-MuSK antibodies. Creatine kinase levels were normal. Immunosuppressive therapy and acetylcholinesterase inhibitors alleviated appendicular symptoms, but significant bulbar manifestations (dysarthrophonia and dysphagia) persisted. After 9 months, marked atrophy of the right tongue border became apparent (Figure 1A). Brain and occipitocervical junction MRI (Figure 2) ruled out structural abnormalities. Plasma exchange and rituximab improved bulbar symptoms, with clinical remission and progressive resolution of tongue atrophy at 6 months (Figure 1B) and 18 months (Figure 1C).

Irregular and reversible tongue atrophy can occur in anti-AChR antibody-positive myasthenia gravis, although the exact pathophysiologic mechanism remains unclear.^{1,2}

Author Contributions

I.V. Carvalho: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; analysis or interpretation of data. F. Gomes: drafting/revision of the manuscript for content, including medical writing for content. L. Almendra: drafting/revision of the manuscript for content, including medical writing for content. A. Geraldo: drafting/revision of the manuscript for content, including medical writing for content. A. Matos: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; Analysis or interpretation of data.

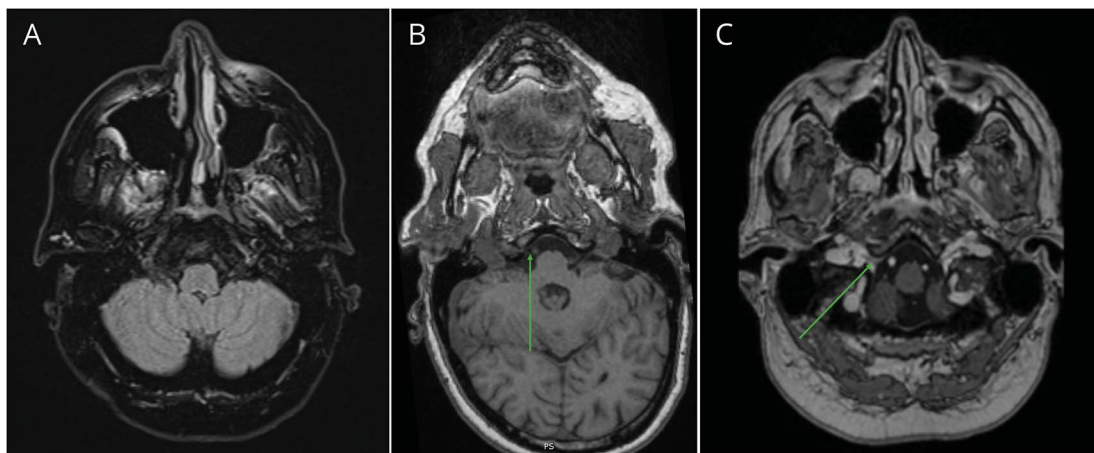
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Figure 2 Brain MRI



(A) Level of the hypoglossal nuclei in the brainstem, (B) cisternal segment of the right hypoglossal nerve, and (C) canalicular segment of the right hypoglossal nerve.

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