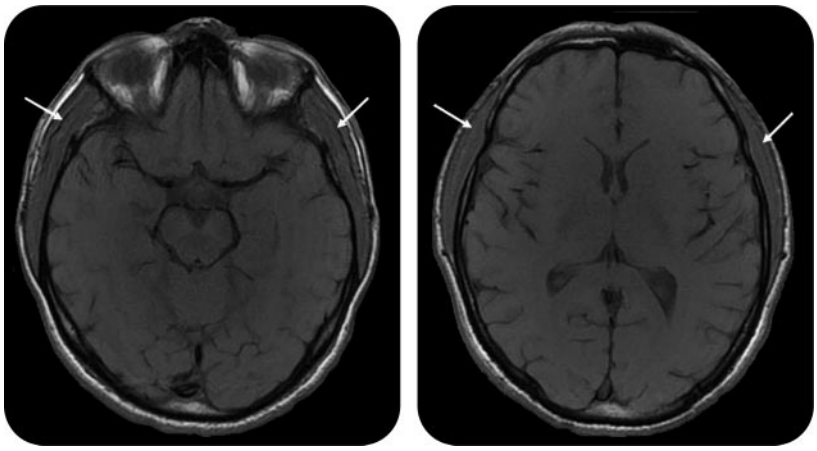
An unusual cause of symptomatic tension-type headache

Hypertrophic branchial myopathy

Figure Head MRI



Axial T1-weighted slices show bilateral symmetric temporal hypertrophy (arrows), with normal intensity and absence of contrast enhancement. No change was detected on fat-saturation fast spin echo sequences.

A 30-year-old previously healthy man had a 3-year history of bilateral temporal headache of moderate intensity, compatible with frequent episodic tension-type headache, concomitant with mild and fluctuating hypertrophy of the temporal muscles. There was no overactivity of masticatory muscles; there was increased creatine phosphokinase (560 UI/mL, normal <200).

Electroneuromyography showed mild polyphasic motor unit potentials of short duration in the masseter and temporal muscles. MRI (figure) showed hypertrophic temporal muscles. These features are highly suggestive of hypertrophic branchial myopathy.[1,2] This rare disorder of unknown etiology selectively affects muscles of mastication, derived from the branchial cleft. Botulinum toxin may help both hypertrophy and headache.

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