‘Effaced bilateral retromaxillary fat pad sign’ in bilateral masseter and temporalis muscle hypertrophy

Sir,

Idiopathic bilateral masseter and temporalis muscle hypertrophy is a rare cause of unilateral headache. The condition is typically seen in the second to fourth decade of life. The usual presentation is that of painless swelling of the jaws and temporal regions, while cosmetic concern is common in females. Many patients deny the history of anxiety/bruxism.

A 38-year-old-female patient presented with a left temporal region swelling and headache of 8 year duration. She had no other comorbidities, no history of stress/anxiety, ear pain, and dental malocclusion. The systemic examination was normal, and no dental abnormalities were seen. Local examination revealed hypertrophied bilateral masseter (R>L) and bilateral temporalis muscles (L>R). Her routine blood investigation including erythrocytic sedimentation rate was within normal limits. Magnetic resonance imaging (MRI) showed bilateral hypertrophied masseter and temporalis muscles. The left temporalis muscle was more hypertrophied compared to the right side. A few T2 hyperintensities were seen within the left temporalis muscle. The retromaxillary fat pad was effaced due to hypertrophy of the masseter and temporalis muscle [Figure 1a]. Possibility of idiopathic bilateral masseter and temporalis hypertrophy was diagnosed. Botulinum toxin injection was administered in the left temporalis muscle (symptomatic side) and the patient was also prescribed a short-term course of antianxiety medications.

We report a case of unusual unilateral temporal headache as an initial presentation, where the jaw swelling was not noticed by either the patient or her relatives. While painful unilateral[1] as well as bilateral[2] temporalis muscle enlargement has been previously described, bilateral masseter and temporalis muscle hypertrophy presenting as headache has not been previously reported. MRI is a useful confirmatory test. Unilateral hypertrophy is easy to detect on imaging;[3] however, reliable detection of bilateral hypertrophy is difficult. The “symmetric effacement of bilateral retromaxillary fat pad sign” is a useful and reliable sign of bilateral masseter and temporalis muscle hypertrophy.
Letters to Editor

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Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

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Figure 1: (a) Axial T2-weighted magnetic resonance image at the level of maxillary sinuses, showing ‘effaced bilateral retromaxillary fat pad sign’ (arrows) secondary to hypertrophy of bilateral masseter and temporalis muscles. (b) Axial T2-weighted magnetic resonance image of an age and sex-matched control showing normal appearance of retromandibular fat pad (arrows)

Access this article online

Website: www.neurologyindia.com
DOI: 10.4103/neuroindia.NI_1196_15
PMID: xxxx

How to cite this article: Harsha KJ, Parameswaran K. 'Effaced bilateral retromaxillary fat pad sign' in bilateral masseter and temporalis muscle hypertrophy. Neurol India 2017;65:410-1.

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