

LETTERS TO THE EDITOR

Greater occipital neuralgia can cause facial paraesthesias

Dear Sir I read Weatherall's article, 'Idiopathic trigeminal neuropathy may respond to greater occipital nerve block', with interest (1). However, I disagree with the diagnosis of trigeminal neuropathy and instead suggest that the patient had referred paraesthesias from the greater occipital nerve or 'greater occipital neuralgia'. The absence of decreased facial sensation, left occipital and left neck discomfort, and left greater occipital nerve tenderness are all consistent with greater occipital neuralgia and not consistent with trigeminal neuropathy, where there is typically hypaesthesia or anaesthesia in the distribution of the trigeminal nerve but not neck or occipital discomfort (2).

Sulfaro and Gobetti have reported a similar case of referred facial pain relieved by greater occipital nerve block (3). Kinney et al. describe a patient with hypaesthesia in portions of the right trigeminal distribution due to greater occipital neuralgia who then had transiently additional areas of hypaesthesia due to greater occipital block (4). I have seen (but not reported) a number of patients similar to Weatherall's with nuchal-occipital discomfort (and others with hemicranial pain) and cheek paraesthesias or subjective hypaesthesia resolving with an occipital nerve block. (In some cases, I have obtained magnetic resonance imaging scans of the brain and blood tests for collagen vascular disease with normal findings.)

Convergence of the C2 afferents which supplies the greater occipital nerve and trigeminal afferents on second-order neurons within the trigeminocervical complex is a functional connection that may explain referred facial paraesthesias (4, 5). I suspect that referred facial paraesthesias or subjective numbness, especially in the cheek, is a greatly underreported manifestation of greater occipital neuralgia, which is a diagnosis of exclusion with diagnostic testing as appropriate. Further reports would be of interest.

References

1 Weatherall MW. Idiopathic trigeminal neuropathy may respond to greater occipital nerve injection. *Cephalalgia* 2008; 28:664–6.

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- 3 Sulfaro MA, Gobetti JP. Occipital neuralgia manifesting as orofacial pain. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1995; 80:751–5.
- 4 Kinney MA, Wilson JL, Carmichael SW, De Ruyter ML, Fulgham JR. Prolonged facial hypesthesia resulting from greater occipital nerve block. *Clin Anat* 2003; 16:362–5.
- 5 Le Doaré K, Akerman S, Holland PR, Lasalandra MP, Bergerot A, Classey JD et al. Occipital afferent activation of second order neurons in the trigeminocervical complex in rat. *Neurosci Lett* 2006; 403:73–7.

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Author's reply

I am very grateful to Dr Evans for his interest in this case report. I do not think it is possible to make a diagnosis of occipital neuralgia in this case, however. The International Classification of Headache Disorders describes occipital neuralgia as a 'paroxysmal jabbing pain in the distribution of the greater or lesser occipital nerves or of the third occipital nerve', a symptom that was never experienced by this patient. Absence of decreased facial sensation does not exclude trigeminal neuropathy as a diagnosis, and although occipital and neck discomfort in association with occipital nerve tenderness are indeed consistent with greater occipital neuralgia, they are also commonly found in patients with migraine, cluster headache and other primary headache disorders manifesting primarily in the distribution of the trigeminal nerve. It is not inconceivable, therefore, that they might also be found in patients with trigeminal neuropathy, if looked for. We will, I am sure, both agree that this case provides further evidence for the physiological reality of the concept of the trigeminocervical complex, and should act as a spur to further research into the physiological effects of greater occipital nerve injection on central pain processing systems.

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