

## P5N40

**Occipital nerve stimulation for intractable chronic primary headache disorders**

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**Objective** There is now clear evidence of functional coupling between nociceptive meningeal afferents and cervical afferents in the greater occipital nerve (GON) at the second-order neuron level (1). The objective of this study is to evaluate the safety and efficacy of occipital nerve stimulation in patients with medically intractable chronic primary headache disorders.

**Methods** Five patients with medically intractable chronic cluster headache (2 patients), chronic migraine (2 patients), and hemicrania continua (1 patient) underwent a detailed medical, neurologic, psychiatric assessment. Each patient underwent surgical placement of occipital nerve stimulating electrodes.

**Results** Mean duration of CDH prestimulation was 4.8 years and mean duration of follow-up was 6.2 months. Mean pre and poststimulation MIDAS were 237 (205–270) and 15.5 (0–50). Three of five patients had excellent outcome (90–100% reduction in headache frequency or disability and off medication); one patient had a very good outcome, and one patient had a fair outcome.

**Conclusions** Occipital nerve stimulation may be safe and effective for patients with disabling primary chronic daily headache disorders. A placebo-controlled study of ONS is warranted in this population of patients.

**Reference**

- 1 Bartsch T, Goadsby PJ. Stimulation of the greater occipital nerve induces increased central excitability of dural afferent input. *Brain* 2002; 125 : 1496–1509.