

Headache: Clinical

Combined Concordant Peripheral Neurostimulation for Chronic Migraine Headaches: A Retrospective Analysis of 188 Consecutive Patients (S41.001)

Kenneth Reed², Francis Conidi¹, Robert Bulger² and Kelly Will²

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Abstract

ABSTRACT

Objective: Combined occipital nerve stimulation (ONS) and supraorbital nerve stimulation (SONS) is an effective treatment for chronic refractory/refractory migraine headache. **Background:** In 1999 occipital nerve stimulation (ONS) was introduced as a treatment for occipital neuralgia¹. Others extended the methodology to migraine. Hypothesizing that the addition of supraorbital stimulation (SONS) may improve outcome, we developed the associated procedure. **Methods:** Between 2009 and 2012 188 patients from five implanting specialists across three different centers were implanted. Number and lead location were determined by the anatomic location perceived pain. Each patient received a survey request. Included were scores for the Migraine Disability Assessment (MIDAS, clinical parameters, including headache frequency and severity, medication usage, patient satisfaction, and patient preference for either the combined or single modality therapy (ON-SONS vs. ONS). **Results:** 93% patients received SON and ON leads, 5% ONS only, 2% frontal only. Other implanted regions included temple & parietal (15 pts), infraorbital (6), mandibular (2), vertex (7), and cervical (4). 85% of patients had 4 leads implanted; 6% 4 (range 5-8). 163 patients (129 F; 34 M) responded to the survey. 24 were adolescents, ages 14 to 19. All met the International Headache Society criteria for chronic migraine. All failed conservative management. Average time since permanent implant was 14 mo. 85% of patients reported over 50% improvement in HA frequency (HA days/mo) and/or severity (VAS 0-10). The average HA days/mo decreased by 73% (27 to 7), and the average severity of the headaches, when they occurred, improved by 59% (9 to 4). 50% saw virtually complete resolution of headaches (0-1/mo). 71% of patients decreased medication usage by > 50%, and 38% were able to completely discontinue preventative medications. MIDAS scores improved by 76%. 87% felt the treatment was successful. **Conclusions:** Peripheral neurostimulation provides effective therapy for patients with intractable chronic migraine headaches. The degree of responsiveness was markedly improved over that of ONS alone.

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