

**COMBINED CONCORDANT PERIPHERAL NEUROSTIMULATION FOR CHRONIC/REFRACTORY MIGRANIE HEADACHES: A RETROSPECTIVE ANALYSIS OF 188 CONSECUTIVE PATIENTS**

**F. Conidi<sup>1,2</sup>, K. Reed<sup>3</sup>, R. Bulger<sup>3</sup>, K. Will<sup>3</sup>, S. Datta<sup>3</sup>**

<sup>1</sup>*Neurology, Florida Center for Headache and Sports Neurology, USA*

<sup>2</sup>*Neurology, Florida State University College of Medicine, USA*

<sup>3</sup>*Interventional Pain, Reed Migraine, USA*

[fxneuro@hotmail.com](mailto:fxneuro@hotmail.com)

**Hypothesis:** The addition of supraorbital stimulation (SONS) to occipital nerve stimulation (OM) may improve the results for chronic/refractory migraine.

**Methods:** Between May 1, 2009 and May 15, 2012 our group implanted peripheral neurostimulation systems in 188 patients. The number and location of the leads were determined by the anatomic location of the perceived pain. Each patient received a survey request. Included were scores for the Migraine Disability Assessment (MIDAS) and a set of clinical parameters, including headache frequency and severity, medication usage, overall patient satisfaction, and patient preference for either the combined or single modality therapy (ON-SONS vs. ONS).

**Results:** 93% of patients required at least SON and ON leads, with 5% ONS only, and 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; and 9% 4 (range 5-8). 163 patients (129 F; 34 M) responded to the survey. 24 were adolescents, ages 14 to 19. All suffered from chronic/refractory migraine that had failed to respond to conservative management. The 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 all routine headache medications. The MIDAS score improved by 76% (avg 208 - 50). 87% felt the treatment to have been successful, and 93% would recommend it to others.

**Conclusions:** Peripheral neurostimulation provides effective therapy for some patients with intractable chronic migraine headaches.