Peripheral Neurostimulation to Control Intractable Occipital Neuralgia

Richard Weiner, Kenneth Reed, Kenneth Alo, Michelle Fuller

**Aim:** To evaluate the effectiveness of a new subcutaneous peripheral nerve stimulation technique for the treatment of intractable occipital neuralgia.

**Methods:** Since 1992, a new surgical technique involving subcutaneous insertion of single or dual percutaneous peripheral nerve stimulator electrodes was developed for treatment of intractable occipital neuralgia by the senior author. The implanted electrodes at the level of C1 utilized a variety of quadripolar and octapolar lead arrays to produce pain blocking paresthesias in the region of the greater and/or lesser occipital nerves in 35 patients over a 6 year interval.

**Results:** Patient outcome rates to date: **excellent-55%**, (>75% pain relief); **good-30%**, (>50% pain relief); **fair - 15%**.

**Conclusions:** Subcutaneous application of peripheral nerve Stimulation techniques at the level of C1 appears to be reasonably effective in controlling otherwise intractable occipital neuralgia type headache and should be considered as a treatment alternative to more aggressive surgical interventions.