Subcutaneous peripheral stimulation of the greater occipital nerve for the treatment of chronic headache syndromes.

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Abstract
Medical treatment for certain chronic headache syndromes such as hemicrania continua (HC), chronic migraine (CM) or chronic cluster headache (CCH) is challenging and in many cases does not lead to sufficient pain relief or is limited by severe side effects. In the last few years neuromodulatory treatments such as subcutaneous stimulation of the greater occipital nerve or deep brain stimulation (DBS) in the hypothalamus have evolved. This report focuses on current knowledge and the results of peripheral subcutaneous nerve stimulation (SPNS) in the literature of the described headache syndromes and presents our own long-term results in ten patients. Technical details of implantation and possible complications are reported. The results between the two different stimulation types are compared. In summary, peripheral nerve stimulation of the greater occipital nerve is less invasive but also less effective in comparison to hypothalamic stimulation. However, the severity and frequency of pain attacks is significantly reduced. For other intractable headache syndromes SPNS of the greater occipital nerve offers a reasonable addition to medical treatment.

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