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Chronic cluster headache treated with occipital and supraciliary nerve stimulation-a new approach

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Background: Chronic cluster headache (CCH) is a disabling neurological disorder, characterized by sudden onset of excruciating unilateral periorbital pain accompanied by ipsilateral autonomic features such as lacrimation, rhinorrhea and flushing. Attacks last up to three hours and in its chronic form, appears on daily base and often refractory to medical therapy.
Case report: A 65 caucasian women with CCD for the last 30 years complaining of multiple daily episodes with huge limitation of her daily life activities. Localized in left peri-orbital and temporal regions,was described as being like an electric shock and burning, foreign body sensation,with aura consisting of luminous dots and lacrimation, with allodynia in the left peri-orbital and supraciliary region. She was referred to our pain unit and a structured educational and drug therapy plan was implemented, associated with locoregional blocks, which proved to be ineffective. Peripheral neurostimulation of the occipital nerve proved to be effective, with shorter scores of pain intensity and number of crises that lasted for a period of two years.
As the complaints reappeared, the occipital lead was repositioned and a supraciliar lead was implanted, achieving a good paresthetic area.The sixth month control currently reveals a patient without clinical complaints. She manages without limitations her daily life activities and has high degree of satisfaction.
Discussion: CCH is one of the most painful headaches.15% of CCH sufferers are chronic. The surgery required for implantation of occipital nerve stimulation is minimally invasive and has a low risk of neurological morbidity. The system include subcutaneous leads that are inserted transversely at approximately the C1 level, in the area of the occipital nerve innervation and tunneled extensions from the leads to an impulse generator in the chest wall, low back or abdomen. Lead migration is the most common complication. Recently there has been considerable progress in neurostimulation techniques, especially occipital nerve stimulation reported to be effective in CCH, suggesting a new therapeutic opportunity in patients with intractable CCH.
References:
Strand NH, Trentman TL; Occipital nerve stimulation with the microstimulator for treatment of medically refractory chronic cluster headache. Pain Physician 2011;14:435-440
Learning points: These are promising, experimental therapies and further consistent data are needed.