

Neuromodulation for Drug-Resistant Chronic Cluster Headache: Efficacy and Safety in a Series of Four Cases

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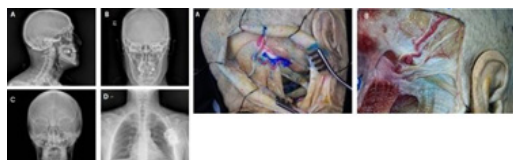
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Abstract

Introduction: Chronic cluster headache (CCH) is a severely disabling form of trigeminal autonomic cephalalgia, often refractory to pharmacological treatment. In recent years, peripheral neuromodulation through occipital (ONS) and supraorbital (SON) nerve stimulation has emerged as a promising alternative for selected drug-resistant patients.



Method: To describe the clinical outcomes of patients with refractory cluster headache treated with occipital nerve stimulation (ONS), and to evaluate the potential benefits of combining supraorbital nerve stimulation (SONS) in selected cases.

PATIENT	AGE (YEARS)	SEX	STIMULATION TYPE	WEEKLY ATTACKS (PRE-OP)	DISEASE DURATION	REDUCTION (%)	RESPONSE R (>50)
P1	36	M	UNILATERAL GON	10	7	100	Yes
P2	42	F	UNILATERAL GON	20	8	75	Yes
P3	52	M	UNILATERAL GON	35	12	50	Yes
P4	42	F	GON + V1	25	11	95	Yes

Discussion: These findings are consistent with previous reports supporting the efficacy of peripheral neuromodulation

for refractory CCH. The high responder rate and absence of adverse events reinforce the role of ONS and SON as safe and effective options in carefully selected cases. Despite the limited sample size, the sustained improvement observed justifies further investigation into optimization parameters and predictors of response.

Conclusions: Occipital and supraorbital nerve stimulation proved to be a safe and effective treatment for refractory chronic cluster headache, resulting in a significant reduction in attack frequency and high patient adherence.

References

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