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Sphenopalatine ganglion block in refractory cluster headache: a case report

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Introduction

Cluster headache is a severe and debilitating trigeminal-autonomic headache. It is often underdiagnosed, has few therapeutic options, and in 10-20% of cases, patients can be refractory to acute and prophylactic medications.

Objective

To describe a difficult to manage cluster headache responsive only to sphenopalatine block

Case Report

A 58-year-old woman presented with intense, right-sided orbital pain, with 60-minute duration attacks occurring 1-2 times a day, mostly at night. These were associated with right-sided ptosis, conjunctival hyperemia, lacrimation, and rhinorrhea. The patient had previously tried prophylactic treatment with verapamil 320 mg/day, achieving only partial reduction in attacks. Valproic acid and lithium were added at different times to optimize treatment but were discontinued due to adverse reactions. Initially, the cluster headache responded to prednisone 1 mg/kg; however, due to long-term effects, the medication was tapered off, leading to a return of attacks shortly after.

Acute treatment with sumatriptan (oral and subcutaneous) resulted in poor responses, providing only mild relief. In most cases, complete relief was achieved only with oxygen therapy in the emergency department. Due to the refractory nature of the condition, bilateral occipital nerve block with lidocaine and dexamethasone was performed while maintaining verapamil at 320 mg/day. However, the patient still experienced severe headaches, responsive only to oxygen therapy.

Finally, an alternative approach using a sphenopalatine ganglion block was performed. The patient showed significant improvement on the same day of the procedure, with complete resolution of attacks and no need for any medications. This improvement was maintained in the subsequent days, allowing her to return to normal daily activities.

This case highlights the complexity of cluster headaches management and underscores the importance of an individualized approach in treatment. Although occipital nerve block is evidenced to be effective for many patients, therapeutic response can vary. In this case, the sphenopalatine ganglion block proved to be a safe and effective alternative, providing complete symptom relief.

Conclusion

Thus, it is crucial to consider individual characteristics when choosing treatment, recognizing that the sphenopalatine ganglion block can be a viable and highly effective option for patients with refractory cluster headaches.