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# Sphenopalatine and occipital nerve blocks for chronic migraine

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**Introduction**

Headache is one of the most prevalent conditions in medicine, with migraine being the most common representative of primary headaches. Although it doesn't lead to high mortality, it carries with it great potential for incapacitation The therapeutic arsenal includes various classes of drugs, but when these drugs prove ineffective or are not tolerated, there is a need for other forms of treatment. Evaluating the functional anatomy of the sensory systems related to headache, sensory afferents are not only the result of the occipital nerves, but also of the trigemino-vascular system, represented by the sphenopalatine ganglion. These structures present a functional convergence, carrying sensory afferents and contributing to the phenomenon of sensitization.This model served as the basis for developing a protocol to block these fundamental structures in the pathophysiology of headache.

**Objective**

To evaluate the therapeutic response to serial blockade of the sphenopalatine ganglion and the greater and lesser occipital nerves in patients with chronic migraine at the headache clinic at HC UFPR. Quantifying the response after the blocks, assessing intensity, frequency of pain crises and adverse effects.

**Methods**

Blockades of the sphenopalatine ganglion and the greater and lesser occipital nerves. The solution used contained 0.2% Ropivacaine with 45mcg Clonidine, 2ml of which was applied bilaterally to the region adjacent to each occipital nerve, and 12ml of which was slowly instilled in gauze inserted with forceps into the lower nasal meatus bilaterally. These procedures were to be carried out five times in series.

**Results**

The blocks were performed on 21 patients with chronic migraine at the headache clinic of the HC UFPR after consent. The majority were female, with a higher proportion aged between 48 and 62.

After a series of 5 blocks, satisfactory results were seen in more than 60% of the sample. Adverse effects were rare, with dizziness being the most frequently reported, leading to discontinuation in only 1 patient.

**Conclusion**

The results were promising in terms of pain control and a low level of adverse effects, suggesting that the procedure was safe. Further studies should be carried out to assess the effectiveness and level of sustained improvement over time.

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