

Truncal Anesthesia for Hair Mesotherapy

To the editor,

Mesotherapy with platelet-rich plasma or dutasteride has shown to be a useful therapeutic tool for alopecia in several studies, for both male and female androgenic alopecia.^[1,2] However, pain can make it difficult to perform this technique and even more patients' adherence. To overcome this difficulty, several analgesic methods have been used, like the application of cold or local vibration devices placed near the infiltration area. However, none of them provides satisfactory pain control.

In contrast, truncal anesthesia (TA) of the supraorbital nerve (SON) by infiltrating 1–2.5 mL of mepivacaine has been previously reported in the literature as a good analgesic technique in conventional photodynamic therapy (PDT) for the treatment of actinic keratosis.^[3] PDT is a painful procedure performed on the scalp, sharing these characteristics with mesotherapy.

TECHNIQUE DESCRIPTION

Once mepivacaine allergy is ruled out after taking into account the clinical history and antecedents of the patient, the first step is to manually find the supraorbital foramen located (SOF) in the upper orbital rim [Figure 1A] and insert the needle obliquely 1 cm above it. The needle is inserted until periosteum [Figure 1B], then it is slightly removed and in this point the infiltration of 1.5 mL of mepivacaine should be performed [Figure 1C]. In no case the infiltration should be done into the supraorbital orifice, because of the risk of damage to the SON. If the SOF cannot be identified by palpation, the infiltration should be performed 1 cm above the orbital rim (taking the patient's pupil facing infinity as reference, as seen in Figure 2). Five to ten minutes after this procedure, the scalp mesotherapy technique can be performed with minimal or null pain for the patient.

SON is a branch of the frontal nerve that runs through the roof of the orbit and emits fibers that exit toward the frontal region through the supraorbital foramen to collect the sensitivity of the medial and lateral frontal regions of the scalp,^[4] so blocking it would completely anesthetize the

frontal region of the scalp in most patients. In case treatment of vertex is also needed, a greater occipital nerve block could be performed but this is not necessary in most of the patients.

The only side effect of this technique is a slight pain during anesthesia infiltration and the periocular edema that disappears within 48–72 h of the procedure. Edema only occurs in a few patients and is well tolerated by all of them because of its low intensity and rapid disappearance. TA of SON is a simple procedure that can be fulfilled in any dermatology office that allows us to perform hair mesotherapy, reducing patient's discomfort and pain and improving their adherence to the treatment.

Consent for publication

All authors have read the manuscript and agreed to be a co-author.

We declare

This paper has not been published or submitted for publication elsewhere. All authors have contributed significantly with this manuscript. We have followed the principles outlined in the Declaration of Helsinki. Informed consent was signed by the patient.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

No. No financial support or benefits have been received by myself, by any member of my immediate family, or by any individual/entity with whom/which I have a significant



Figure 1: A. First step is to manually find the supraorbital foramen located (SOF) in the upper orbital rim. B. The needle is inserted obliquely 1 cm above the SOF. C. Infiltration of 1.5 mL of mepivacaine



Figure 2: Infiltration point if the SOF cannot be identified by palpation

relationship from any commercial source, which is related directly or indirectly to the scientific work reported on in this article.

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