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macules.<sup>4</sup> The present case would be the first and only described in an adult patient, based on a survey conducted in December 2016 on PubMed using the keywords "tongue", "melanotic macule," and "adult".

Most melanotic macules are congenital, affect Caucasian individuals, may be single or multiple, have a diameter varying between 0.3cm and 3cm, tend to grow in proportion to the body growth, and are unrelated to any systemic condition.<sup>24</sup> Their clinical features are not yet well-defined.<sup>12</sup> The etiology of the disease still remains uncertain, but it is suggested that congenital cases may represent melanocyte hamartomas.<sup>2</sup>

Histology of the described cases of lingual melanotic macule reveals increased melanin in the basal cell layer, some pigment-laden macrophages in the dermis, normal number of melanocytes with no or a slight increase of melanin in their interior and variable degrees of hyperkeratosis. There are no nests of melanocytes, atypia, or alterations in the lingual tissue, and, in some cases, slight elongation of the epithelial ridges has been described. Also, according to Dohil *et al.*, no similar histopathological alteration was identified in the non-affected lingual tissue.

Our patient is an adult woman, which is uncommon when compared to other cases described. The most relevant differential diagnosis in this case would be to rule out the possibility of melanoma.

Some authors recommend anatomopathological examination for diagnostic confirmation, although others sustain that the diagnosis is only clinical and follow-up is necessary to investigate changes in size, shape, and color of the lesion.<sup>24</sup> Although the number of documented cases allows no definitive conclusions, a clinical diagnosis of congenital melanotic macule of the tongue should be considered in the presence of the following characteristics: single or multiple lingual melanotic lesions, presence of a macular lesion at birth with proportional growth, and absence of family history of systemic conditions associated with mucosal pigmentation.<sup>2</sup> For acquired cases, lingual melanotic macules, although rare, should be considered in the differential diagnosis of pigmented lesions of the oral mucosa. Dohin *et al.* suggest that the biopsy sample of lingual melanotic lesions include normal tissue so that it is easier to compare the normal pigmentation with that of the lesion.<sup>2</sup>

Although lingual melanotic macule is a benign condition, an important differential diagnosis is made with melanoma. Therefore, we reiterate the importance of anatomopathological examination, especially in acquired cases.  $\square$ 

## REFERENCES

- Buchner A, Merrell PW, Carpenter WM. Relative frequency of solitary melanocytic lesions of the oral mucosa. J Oral Pathol Med. 2004;33:550-7.
- Dohil MA, Billman G, Pransky S, Eichenfield LF. The congenital lingual melanotic macule. Arch Dermatol. 2003;139:767-70.
- Tsunemi Y, Saeki H, Tamaki K. Labial melanotic macule diagnosed by dermoscopy. Acta Derm Venereol. 2008;88:524-5.
- Savoia F, Ricci L, Patrizi A, Gaddoni G. Congenital melanotic macules of the tongue.
  A case report and brief review of the literature. Pediatr Dermatol. 2015;32:109-12

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## Intralesional betamethasone as a therapeutic option for alopecia areata\*

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Dear Editor,

Alopecia areata (AA) is an inflammatory disease of the hair follicles with a probable multifactorial origin, with autoimmune and genetic components.<sup>1</sup> Hair loss in this condition occurs by the abrupt discontinuation of hair synthesis, without the primarily destruction of hair follicles. Therefore, AA is a potentially reversible disease. According to the main therapeutic guidelines, intralesional corticosteroids are considered first-line therapy in adults with AA involving less than 50% of the scalp.2 Intralesional infiltration of corticosteroids is considered relatively simple, effective, and minimally invasive. This route of administration transposes the epidermal barrier, delivering the drug directly into the inflamed area. Thus, it minimizes the possible adverse effects related to systemic corticosteroid therapy. In addition, penetration of the drug is more expressive compared to the topical route. The aim of this article is to suggest the use of intralesional injection of betamethasone as an alternative to triamcinolone in the treatment of alopecia areata.

Since 1956, intralesional corticosteroids have been used for the treatment of several dermatoses. Usually, triamcinolone acetonide is the most widely used injectable synthetic corticosteroid in the world, with several studies proving its efficacy.<sup>3</sup> In Brazil, because of the lack of triamcinolone acetonide supply, the most common form of therapy is with triamcinolone hexacetonide (although there is no reference in the patient information leaflet formalizing its dermatological indication). Triamcinolone hexacetonide is found as

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a 20mg/mL sterile suspension and is marketed in 5mL bottles or in 1mL ampoules in packs of 5 (a single 1mL ampoule is not marketed). Dilution with saline solution, glucose, or distilled water is recommended, with an optional mixture of lidocaine. According to the leaflet, llidocaine containing methylparaben, propylparaben, or phenol should be avoided since these compounds may increase the risk of flocculation of the steroid.

A comparative study demonstrated similar efficacy of intralesional triamcinolone acetonide for the treatment of AA on the scalp regardless the concentration (2.5mg/mL, 5mg/mL, and 10mg/mL). However, the authors observed a lower risk of cutaneous atrophy at the lowest dose (2.5mg/mL). For the face, recommended concentrations of 2.5-5mg/mL have already been described, with a maximum concentration of 10mg/mL for the scalp, always respecting the maximum dose of 20mg per monthly session.<sup>4</sup>

A possible option for the substitution of hexacetonide is betamethasone.<sup>5</sup> It is a low-cost, easy-to-access drug that has a formal recommendation for dermatological use in its package leaflet, which includes a specific indication for alopecia areata. In Brazil, there are two different options for betamethasone injectable suspension. The first one associates acetate salt with betamethasone disodium phosphate, both at a concentration of 3mg/mL. The second, combines dipropionate 5mg/mL with betamethasone disodium phosphate 2mg/mL. Due to the ease of access to the drug, the latter is the authors' choice for the treatment of AA. For being more soluble, betamethasone dipropionate is rapidly absorbed. The less soluble disodium phosphate is absorbed more slowly and maintains an effective concentration of the drug for a longer time. Betamethasone is found as a sterile injectable suspension and is marketed in individual packs of 1 mL. This presentation minimizes contamination of the product as it allows for the disposal of the ampoule immediately after use.

A comparative study of intralesional triamcinolone and betamethasone for the treatment of oral lichen planus demonstrated greater efficacy and less recurrence of lesions with the use of betamethasone.<sup>5</sup> From a practical point of view, to infiltrate AA plaques using betamethasone (dipropionate 5mg/mL + disodium phosphate 2mg/mL), drug dosage should be initially calculated using the 2.5mg/mL triamcinolone concentration as a basis. This concen-

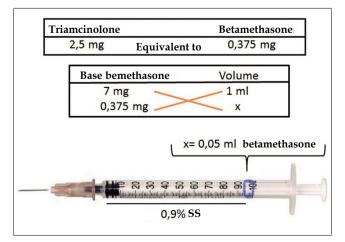


FIGURE 1: Corticosteroid equivalence, conversion, and dilution

tration is safer and as effective as higher concentrations (Figure 1). Using a syringe with 1 mL graduation interval and a  $30\,\text{G}^{1/2}$ -inch *needle*, aspirate 0.05mL of the medication and dilute it with a 0.9% saline solution until the syringe is full. The infiltration of 0.1mL/injection point occurs in the intradermal plane, with spacing of 0.5-1cm between the punctures and interval of 4-6 weeks between sessions.

The use of topical anesthetics, vibration, and pre-cooling of injection site may be useful to minimize procedural pain. Treatment should be discontinued if there is no improvement after six months of infiltration.<sup>2</sup> Therefore, because it is viewed as a consecrated medication with a high anti-inflammatory potential, low cost, easy access, and with dermatological indication formalized in the package leaflet, betamethasone injectable suspension seems to be a good option to be considered as an alternative to triamcinolone in the intralesional treatment of alopecia areata.  $\Box$ 

## REFERENCES

- Messenger AG, McKillop J, Farrant P, McDonagh AJ, Sladden M. British Association of Dermatologists' guidelines for the management of alopecia areata 2012. Br J Dermatol. 2012:166:916-26.
- Shapiro J. Current Treatment of Alopecia Areata. J Investig Dermatol Symp Proc. 2013;16:S42-4.
- Richards RN. Update on Intralesional Steroid: Focus on Dermatoses. J Cutan Med Surg. 2010;14:19-23.
- Chu TW, AlJasser M, Alharbi A, Abahussein O, McElwee K, Shapiro J. Benefit of different concentrations of intralesional triamcinolone acetonide in alopecia areata: An intrasubject pilot study. J Am Acad Dermatol. 2015;73:338-40.
- Liu C, Xie B, Yang Y, Lin D, Wang C, Lin M, et al. Efficacy of intralesional betamethasone for erosive oral lichen planus and evaluation of recurrence: A randomized, controlled trial. Oral Surg Oral Med Oral Pathol Oral Radiol. 2013:116:584-90.

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