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# Burning Mouth Syndrome and $\alpha$ -Lipoic Acid

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To the Editor:

Burning mouth syndrome (BMS) is a painful, chronic, idiopathic complaint characterized by a sensation of burning, pain, itching, or scalding of the oral mucosa in the absence of clinically evident lesions. It is a common condition that usually affects postmenopausal women and that is often associated with anxiety, depression, or cancerophobia. There are currently no effective treatments available and, among others, anticandida agents, drugs for ulcers, hormone replacement therapy, benzodiazepines, tricyclic antidepressants, selective serotonin uptake inhibitors, and psychotherapy are used. 2,3

α-Lipoic acid (thioctic acid) is a potent antioxidant able to neutralize free radicals formed in the organism. It is a molecule that acts in aqueous and fatty media and that is active in both its reduced and oxidized state. In addition, it is able to regenerate other antioxidants such as glutathione, vitamin E, vitamin C, and coenzyme Q, and plays an important role in cell metabolism in that it acts as a cofactor in mitochondrial dehydrogenase-mediated reactions. Different clinical studies have demonstrated the neuroprotective effect and efficacy of this agent in the treatment of peripheral neuropathies caused by conduction disorders and neurotrophism.4 At the recommended dose of 600 mg/d, no relevant adverse effects have been reported, even over long treatment periods. Its usefulness in BMS was proposed by Fermiano et al,5-10 who suggested that the disorder behaves as a peripheral neuropathy influenced by stressful psychological events.

To test this hypothesis, we treated 10 patients who were suffering from BMS with  $\alpha$  lipoic acid. A full medical history was taken, and the patients underwent a detailed examination of the oral mucosa; cultures for *Candida* species; and blood tests for vitamin  $B_{12}$ , iron profile, and antinuclear, anti-Ro, and anti-La antibodies to rule out other localized or systemic diseases that might cause similar symptoms. The severity of the BMS was assessed using a visual analogue scale (0, no pain/burning; 1, mild pain/burning; 2, moderate pain/burning; 3, severe pain/burning).

Oral treatment with  $\alpha$ -lipoic acid (600 mg/d) and  $\gamma$ -linoleic acid (360 mg/d) was administered over 8 weeks. Therapeutic efficacy was assessed after 2 months using another visual analogue scale (0, no improvement; 1 slight improvement; 2, moderate improvement; 3, strong improvement).

All our patients were postmenopausal women and the mean age of the series was 63.7 years (range, 55-74 years). Items of note in the personal history included anxiety and depression (3 patients). The mean duration of BMS was 35.5 months (range, 2-96 months). The symptoms were severe in 4 patients, moderate in 5, and mild in 1. Among the prior medication, of note were topical measures (antiseptic mouthwashes, corticosteroids, antifungals) (10 patients), oral antifungals (1 patient), tricyclic antidepressants (3 patients), serotonin reuptake inhibitors (1 patient), and antipsychotics related to olanzapine (3 patients). One patient had a positive culture for *Candida* species and was treated with oral antifungals

without any improvement in symptoms. Two patients tested positive for antinuclear antibodies and 1 of these, diagnosed with systemic lupus, also tested positive for anti-Ro antibodies.

Of all the patients treated, only 3 showed a mild improvement. The remaining patients showed no response to treatment

In the case series presented here, response was limited, as only 3 out of 10 patients reported a mild improvement in symptoms. Although this study cannot provide definitive conclusions, the results would seem to reject the hypothesis of the usefulness of  $\alpha$ -lipoic acid in the treatment of BMS, as indicated in the systematic review published by the Cochrane library in 2005. Rigorous clinical trials would therefore be needed to demonstrate whether or not this treatment is effective.

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#### **Conflicts of Interest**

The authors declare no conflicts of interest.

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# Blaschkoid, Zosteriform Linear Lichen Sclerosus et Atrophicus

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To the Editor:

Lichen sclerosus et atrophicus is a chronic inflammatory disease that can affect the genital and perineal area, occurring less frequently in extragenital locations. Blaschkoid or zosteriform linear forms of this dermatosis have rarely been described in the literature. We present a case of lichen sclerosus et atrophicus forming linear lesions of 2 different patterns in the same patient: the first along the Blaschko lines, and the others on top of previous scarring from herpes zoster as the manifestation of an isotopic response.

A 47-year-old man was referred to us for a clinical condition with onset 4 years previously. This consisted of the appearance of slightly pruritic, whitish lesions on an area of atrophic scars on the right-hand side of the

abdomen where the patient had suffered an episode of herpes zoster 7 years previously. Over the last 2 years he had also noted the appearance of similar lesions extending from the right scapular region to the shoulder and the right pectoral zone. He reported no history of previous trauma, autoimmune disease or other relevant issues. Laboratory tests, including autoimmunity screening (antinuclear, anti-DNA, anti-SS-A, anti-SS-B, anti-RNP and anti-Scl-70 antibodies) were normal.

Physical examination revealed the presence of whitish plaques with an atrophic surface, follicular plugs, and erythematous edges in linear formations along the upper right-hand side of the back (Figure 1), as well as more isolated lesions in the area under the clavicle on the right.