CASE REPORT

Lichenoid reaction to carbamazepine in the oral mucosa - Case report

Reação liquenoide à carbamazepina em mucosa bucal - Relato de caso

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Abstract: Lichenoid drug reactions are more commom in skin, but they may also occur in the oral mucosa. It is difficult to diagnose these lesions due to their clinical similarity to the idiopathic oral lichen planus lesions. The present article reports a case of lichenoid reaction in oral mucosa associated to the use of carbamazepine, emphasizing the diagnostic process.
Keywords: Carbamazepine; Lichen planus, oral; Mouth mucosa

Resumo: As reações liquenoides por drogas são mais comuns na pele, mas também podem ocorrer na mucosa bucal. Estas lesões são de difícil diagnóstico por causa de sua semelhança clínica com às do líquen plano oral idiopático. O presente artigo relata um caso de reação liquenoide em mucosa bucal, associado ao uso de carbamazepina, no qual o processo de diagnóstico é enfatizado.
Palavras-chave: Carbamazepina; Líquen plano bucal; Mucosa bucal

INTRODUCTION

Lichenoid drug reactions (LDsR) are clinically and histopathologically similar to the idiopathic oral lichen planus lesions, making its diferential diagnosis difficult.[1,2,3,4,5] Considering that there is no specific test to diagnose LDR the most accepted criterion is based on the observation of improvement or disapearance of the lesions after withdrawal of medication added to recurrence of the lesions when medication is reintroduced.[6,7,8,9]

LDsR are more frequent in the skin than in the oral mucosa.[6,8,9] The present article emphasizes the diagnostic process in a case of LDR in the oral mucosa associated with the use of carbamazepine.

CASE REPORT

Thirty-nine year-old male patient, Caucasian, sought our dental clinic complaining of pain and mouth burning for six months. It was observed, during clinical examination, the presence of papules and whitish plaques in the jugal mucosa associated with erythematous and ulcerated areas. (Figures 1A and 1B). There were also present hyperpigmented areas accompanied by white plaques and streaks (similar to Wickhan's) in the upper and lower lips (Figure 1C). The patient had been using carbamazepine and fluoxetine in the last 12 months to control "alcohol withdrawal syndrome".

It was performed an incisional biopsy on the

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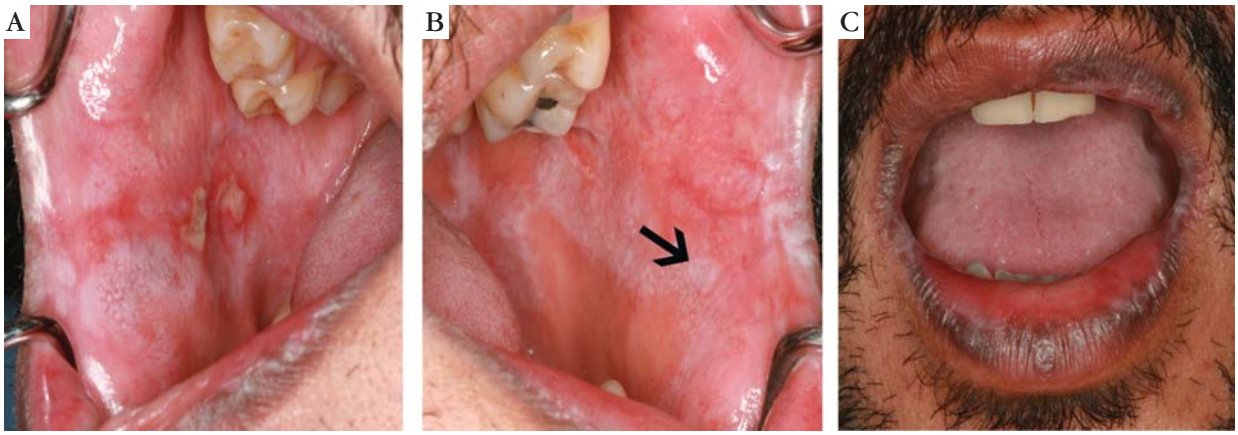

Figure 1: A and B. clinical aspect of the jugal mucosa showing papules and withish plates with ulcerations and erythema; (C) hyperpigmented areas accompanied by plates and withish streaks on the upper and lower lips **B.** indicate the site of the first and second biopsy respectively

left side of the jugal mucosa and histopathology showed hyperkeratosis and hypergranulosis, areas of acanthosis and exocytosis, besides occasional keratinocytes showing dyskeratosis in the epithelium. Analysis also showed areas of degeneration of the basal membrane and presence of inflammatory infiltrate predominantely lymphocytic in justaepithelial region, although not presenting standard band. Mild pigmentary incontinence could be observed and there was no evidence of epithelial dysplasia. Therefore, the histopathological diagnosis was compatible with oral lichen planus. (Figures 2A and 2B).

For initial control of the lesions it was prescribed the use of clobetasol propionate 0.05% in orabase twice a day, for 15 days. In the revaluation consultation it was observed substantial improvement of the lesions and disappearance of symptoms. Given the significant improvement of the white-keratinized and hyperpigmented lesions, in which topical corticosteroids are not usually effective, the patient was asked if there had not been any changes in his treatment for alcohol withdrawal syndrome. The medical history was re-done and it was discovered that the medication had been suspended by the psychiatrist three weeks before. The significant improvement of the oral lesions suggested the diagnosis of LDR induced by carbamazepine.

The use of topical corticosteroids was then suspended and the patient was kept under clinical monitoring with manteinance of improvement of the lesions after 10 months of monitoring and presenting only small remaining plates in the retrocommissural mucosa (Figures1D, 1E and 1F). A new biopsy was performed in area previously affected and histopathology showed only hyperkeratosis and mild diffuse inflammatory infiltrate (Figure 2C).

DISCUSSION

Carbamazepine is a drug with GABAnergic properties and blocker of N-methyl D-aspartate

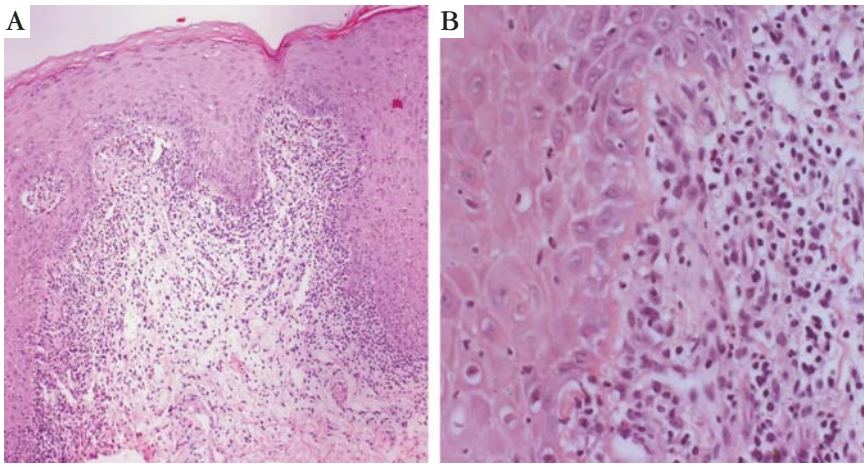

Figure 2: A. photomicrography of material from the first biopsy showing characteristics compatible with the diagnosis of lichen planus such as hyperkeratosis and justaephitelial inflammatory infiltrate (HE 25X); **B.** enlarged photomicrography of material from the first biopsy showing degeneration of the basal membrane and lymphocytic inflammatory cells (HE 100X)

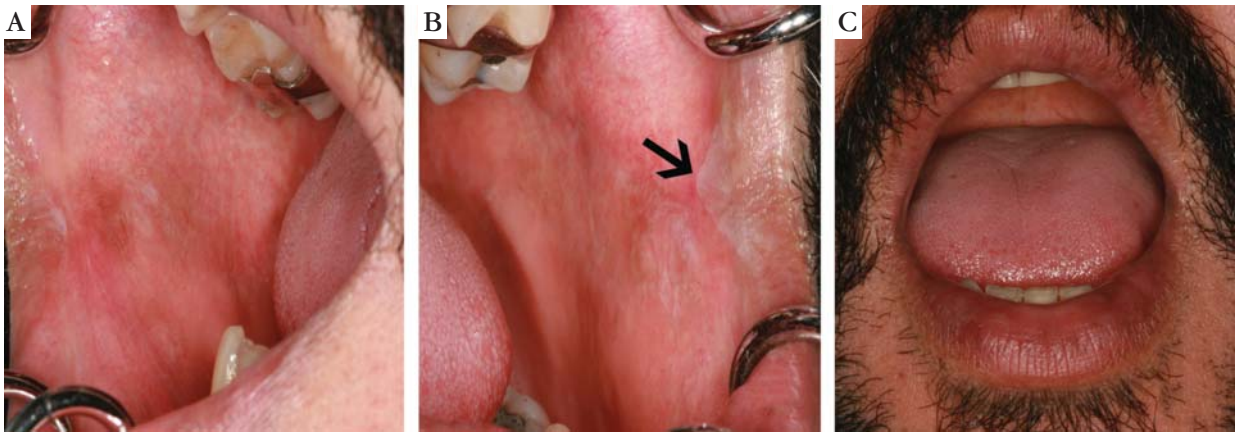

Figure 1: A, B and C. significant improvement of lesions on lips and jugal mucosa, only with minor remaining plates on retrocommissural mucosa. The arrows in pictures **B.** indicate the site of the first and second biopsy respectively

(NMDA) receptor and with potential to induce the appearance of LDR type lesions, mainly in the skin. [8,9]

The findings of this case are consistent with what has been observed in other reports showing that the appearance of LDR generally occurs a long time after the patient has started the use of the medication which induces the lichenoid reaction that, in this case, occured 12 months after the use of carbamazepine. [3,5,8] In accordance with similar studies, the latency period for the appearance of LDR type lesions can vary from 2 months to 3 years, depending on the type of medication involved, being longer for the penicillamine[5]. The average latency period is 12 months coinciding with the period observed in the present case.[5] Diagnosis is based on the medical history of the patients, on the characteristic histopathological findings complemented by the observation of improvement of the condition after withdrawral of the medication.

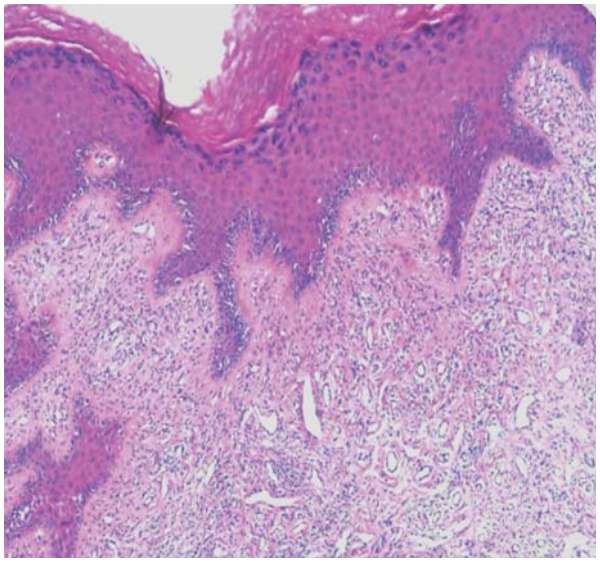

Figure 4: photomicrography of material from the second biopsy showing hyperkeratosis and mild difuse inflammatory infiltrate (HE 25X)

In the case of a cause-effect reaction as it is the case of LDRs, the suspension of the drug associated with the condition usually produces the complete disappearance of the lesions. However, as mentioned in the medical literature, there is not always complete resolution of the lesions after drug withdrawal.[5,7,8]. In reports of oral lesions of LDR pattern the withdrawal of the suspected drug led more to substantial improvement of the lesions than to their complete disappearance occurring, in general, persistence of the lesions in the format of keratinized plates similar to what happened in the observed case.

It was reported an unusual case of lichenoid eruption triggered by medication, exclusively located in the oral mucosa. Withdrawal of the drug was fundamental for improvement of the disease. ❑

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