A Complication after Intralesional Methylprednisolone Acetate Application to Oral Mucosa: A Case Report

Introduction

Oral lichen planus is a chronic inflammatory immunological reaction in which epithelial basal cell damage produces mucosal lesion of various types. It tends to be chronic; complete remissions are either non-existent or infrequent, particularly in patients with erosive lesions, and exacerbations are unpredictable and common.

The large number of medication that has been used in the management of the disease; however, not any agent could control the symptoms in all patients. The mainstay of the treatment of oral lichen planus remains on corticosteroids, which can be used topically, intralesionally, or systemically. Of these treatment forms, intralesional injection of steroids can improve the symptoms.

This study is to evaluate one possible complication of the intralesional corticosteroid injection to a patient with oral lichen planus.

A Case Report

A 47-year-old male patient with a painful lesion of the left buccal mucosa was referred to the Department of Oral Diagnosis and Radiology, Faculty of Dentistry. Examination revealed an ulcerous lesion (2x3cm) with surrounding erythematous area and Wickham’s striae (Fig. 1). An incisional biopsy specimen was taken from the lesion and histopathologically diagnosed as erosive oral lichen planus. The treatment plan included 10 intralesional injections of methylprednisolone acetate, each 0.1 cc and 1 cm apart, at intervals of 15 days.

An infection with an extraoral minor swelling of the left cheek developed after third application. As abscess findings were absent, it was thought to be sialoadenitis, and sipramycin (30000000 I.Ux2, rovamycine) tablets were prescribed (Fig. 2). The swelling increased, and phleghmonous appearance was detected after 2 days (Fig. 3). The patient was sent for MRI examination, and the medication was changed to amoxicillin/clavulanate potassium (klamoks BID, 2x1) and omidasole (250 mg, 2x2) tablet combination.
Figure 1. Ulcerous lesion with surrounding erythematous area and Wickham’s striae.

Figure 2. Minor swelling of the left cheek.

Figure 3. Extraoral view of the patient 2 days later.

Figure 4. MRI – axial (a) and coronal (b) plane T1W images.

Figure 5. MRI - axial (a) and coronal (b) plane T2W images.
MRI revealed an abscess formation (Figs. 4 and 5) between muscles (6x4 cm). Patient was hospitalized, and drainage of the abscess was performed (Fig. 6).

**Discussion and Conclusion**

The main treatment for erosive and atrophic forms of the oral lichen planus is corticosteroid therapy\(^1,4,12\). It is reported that even complete healing can be observed after systemic corticosteroid application\(^5,11\). This kind of application is limited as the side effects of systemic corticosteroids are much more exerted than those after the other steroid treatments.

Successful results have been reported for local corticosteroid treatment of oral lichen planus\(^1,3-5,16\). However, it may be difficult to apply the drug to the proper sites in old patients. Optimal effect can be achieved with 5-10 applications a day\(^10,11\). Furthermore, swallowing and salivary wash-out can prevent the drug adhesion to the lesion. Thus, the absorption through the semi-permeable mucosa is decreased\(^2,6\).

Many studies have shown that intralesional therapy with steroid anti-inflammatory drugs is useful in controlling ulcerative and inflammatory oral mucosal diseases, especially oral atrophic and erosive oral lichen planus\(^5,6,11,13\). This local treatment of steroids is based on the concept that a high activity could be produced at the site of administration and, at the same time, the severity of systemic side-effects may be minimized or avoided\(^2,7\).

The most frequent side-effects in the intralesional application are tissue atrophy and candidiasis\(^6,8,9,13,14,16-19\). In this case, an abscess formation was the complication. This abscess formation may be due to the inoculation of the oral flora to the deep tissues during the injections. Antiseptic mouthwashes can help to prevent this complication and must be used during the treatment.

**References**


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