Background. The purpose of this paper is to describe two cases of desquamating gingivitis (DG) that were treated with a topical gel containing clobetasol propionate and *Calendula officinalis* L in an acetate tray over two years.

Methods. Two patients with a diagnosis of lichen planus presenting as DG who had undergone previous treatments for this condition with no significant results, were treated by a handling gel containing clobetasol, nystatin, *Calendula officinalis* L and pectin in custom trays.

Results. Both patients had remission of symptoms while using the trays and after they stopped the treatment, the symptomatic outbreaks were delayed and presented as less severe symptoms in the two years follow-up. The treatment is aimed primarily at reducing the length and severity of symptomatic outbreaks desquamative gingivitis.

Conclusion. This handling gel using a tray may be an efficacious treatment of desquamative gingivitis.

INTRODUCTION

The oral lichen planus (OLP) is a chronic inflammatory mucocutaneous disease with uncertain etiology and auto-immune pathogenesis\(^1\)-\(^3\). The lesions are usually multiple and almost always have a bilateral symmetrical distribution, characterized by relapses and remissions periods\(^2\)-\(^5\).

OLP affects approximately 1% to 4% of the population, with a peak incidence in the 30-60 years age\(^5\)-\(^7\) and women are more commonly affected than men\(^8\).

Most patients are usually asymptomatic, however burning sensation and pain interference with speaking and eating are common symptoms in the atrophic and erosive forms\(^4\)-\(^6\). Spontaneous remission is rare and many lesions require treatment\(^7\). The most widely used agent in treatment are corticosteroids, which can be used topically, intralesionally or systemically\(^7\)-\(^8\).

Erythematous or ulcerated lesions that affect the entire width of the attached gingiva cause a condition called desquamative gingivitis (DG)\(^2\).

Case 1

A 40-year-old healthy white male was referred to the Stomatolgy Diagnosis Service at Pontificia Universidade Católica do Paraná with a chief complain of pain and associated soreness of the gingiva for about three years, with periods of exacerbation and quiescence. Intraoral examination revealed erythematous and diffuse desquamative lesions of the gingiva, which were generalized for all maxillary region, bilaterally (Fig. 1a,1b). The associated teeth had no mobility and no bleeding on probing, but a variable amount of dental biofilm was observed.

Based on the clinical features a diagnosis of atrophic-erosive OLP was made. Incisinal biopsy was performed and histopathological examination confirmed the diagnosis.

A prescription of a handling gel containing 0.05% clobetasol propionate, 3% *Calendula officinalis* L extract, 100.000 IU/ml of nystatin and 5% pectin was done. A custom-fitted tray was made with a 1.5 mm thick ethylene vinyl acetate sheet, which covered the upper and lower dental arch. The patient was instructed to fill the tray with the gel and keep it in place for 15 min, three times a day. He should refrain from eating and drinking for at least 30 min after application.

Following completion of 2-weeks treatment, substantial improvement was observed in the gingival lesions (Fig. 1c,1d). The patient reported reduction of pain.
At this time he was referred to the Periodontology Clinic to remove plaque and calculus deposits and to receive good oral hygiene instructions. He was seen weekly till the remission of the gingival lesions, what occurred one month later. Then the patient was instructed to stop using the tray and was scheduled to return at 3 months, but he failed and returned only approximately 7 months later with lesions and symptoms similar to the initial presentation. In this time the therapy was restarted for 4 weeks and 9 months after this period the patient remains symptom free. The patient has been under continuous care (more than 2 years) since the initial presentation.

Case 2

A 44-year-old healthy white female was referred by her private periodontist to the same Service for evaluation of persistent pain associated soreness of her gums for four years. She was also complaining of gingival burning during her oral hygiene. Intraoral examination revealed severe, extensive and erythematous desquamative lesions of the gingiva, which were generalized for all maxillary and mandibular teeth, bilaterally (Fig. 2a). Periodontitis was not verified on clinical probing. The patient had good oral hygiene.

Incisional biopsy was carried out and histopathological examination confirmed the diagnosis of atrophic-erosive OLP. The treatment prescribed for the patient was the same described in case 1. She was seen weekly till the remission of the gingival lesions, what occurred one month and half later. During this period a good healing of gingival lesions was noted with reduction in erythema in some regions and complete resolution of pain (Fig. 2b). She was oriented to stop using the trays and scheduled for a return at 3 months, remaining asymptomatic throughout this period.

An outbreak emerged one month after follow-up visit and the therapy was restarted for one month. Two years follow-up shows periodic recurrence, each 4–6 months, with less severe symptoms. The patient reported that acute exacerbations were linked to periods of psychological stress and anxiety. She continues to be on therapy, when clinical symptoms reappear.

DISCUSSION

The gingiva is a target of autoimmune diseases and about 10% of patients with OLP have the disease confined.
Management of two cases of desquamative gingivitis with clobetasol and calendula officinalis gel

337

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337

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337

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337

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337

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337

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337
Of these, the lauryl, myristoyl and palmitoyl esters of farradiol are the most abundant.

After a review of the literature, no reports on the association of Calendula and clobetasol in the treatment of LP were found. A case of recurrent exfoliative cheilitis successfully treated with topical Calendula officinalis L ointment 10% were reported.

Nystatin was added to the gel basis in order to prevent oral candidosis, one of the most frequent side effects in long term use of corticosteroid therapy; the occlusive nature of the tray method could induce oral candidiasis. Pectin is used as gelling and thickening agent to bind cells together and regulate water. It is also used in wound healing preparations and specialty medical adhesives. It helps to maintain the drug in contact with the gingival mucosa.

Patients with desquamative gingivitis should be monitored throughout lifetime, in view of the chronic nature of this disorder, with frequent reactivations. Control of symptoms, burning sensation to severe pain and functional incapacity in DG is particularly important. The application of this handling gel by means of a tray may be an efficacious treatment of desquamative gingivitis.

In summary, additional studies should be performed to elucidate the pharmacological action of Calendula officinalis L in the management of the desquamative gingivitis, as clobetasol has proven its effectiveness in several studies. A study showing the results of a larger group of patients will be provided in future.

CONCLUSION

The results presented allow the authors to consider the association between clobetasol and Calendula officinalis L as a potential therapy in cases of desquamative gingivitis.

REFERENCES