Idiopathic red lesion: case series

İdiopatik kırmızı lezyon: olgu serisi

Abstract

The first step in the treatment of periodontal diseases is to mechanically remove plaque and dental calculus, which play a role in the etiology of periodontal diseases, and to establish oral hygiene. In some cases of oral diseases, some drugs and chemical agents can be used for various reasons in addition to mechanical treatment. Corticosteroids are frequently used in oral mucocutaneous diseases because of their strong anti-inflammatory, antiallergic and immunosuppressive effects in the treatment of many other diseases. Although there are different ways of using corticosteroids, the topical form is often preferred in the treatment of oral lesions associated with oral mucosal diseases. This case series aims to evaluate the effect of topical corticosteroid application on red lesions in the gingiva that do not heal with conventional periodontal treatment.

Keywords: gingivitis; idiopathic; corticosteroid

Öz

Periodontal hastalıkların tedavisinde ilk basamak, periodontal hastalıkların etiyolojisinde rol oynayan bakteri plağı ve diştaşlarının mekanik olarak uzaklaştırılması ve oral hijyenin sağlanmasıdır. Bazı oral hastalık durumlarında mekanik tedaviye ek olarak, çeşitli sebeplerle bazı ilaç ve kimyasal ajanlar kullanılabilmektedir. Kortikostreoidler; birçok hastalığın tedavisinde güçlü antiinflamatuar, antialerjik ve immünosupresif etkileri nedeniyle oral mukokütonoz hastalıklarda sıklıkla kullanılmaktadır. Kortikosteroidlerin farklı kullanım şekilleri olsa da oral mukozal hastalıklarla ilişkili ağız lezyonlarının tedavisinde sıklıkla topikal formu tercih edilmektedir. Bu olgu serisinin amacı, konvansiyonel periodontal tedaviyi takiben iyileşmeyen dişetindeki kırmızı lezyonlara topikal kortikosteroid uygulamasının etkisini değerlendirmektir.

Anahtar Sözcükler: gingivitis; idiyopatik; kortikosteroid

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INTRODUCTION

Oral mucosa is a region that has its specific lesions and many systemic diseases lesions can be seen in the oral mucosa (1). Lesions occurring in the oral mucosa are classified in many ways according to their color, localization, etiology, and morphological features and are classified as white, red, and pigmented lesions according to their color (2,3). The red colorization of the lesions may be due to thin epithelial structure, inflammation, dilatation or increased number of blood vessels, and extravasation of blood into the oral soft tissues (4). It is usually seen on the lips, buccal mucosa, floor of the mouth, tongue, palate, and gingiva. Etiology may be trauma, infection, immunological causes, or idiopathic (1).

Corticosteroids are used in the treatment of many diseases due to their strong anti-inflammatory, antiallergic and immunosuppressive effects. They can be used in different ways such as topical, oral/systemic, inhalation, nasal and intra-articular (5). Systemic steroids are preferred for multiple and widespread lesions in the acute period, as long-term use can cause serious side effects. Topical steroids (TS) can be applied in many forms such as cream, gel, and lotion in the basic treatment of many oral mucosal diseases such as lichen planus, recurrent aphthous stomatitis, pemphigus vulgaris, erythema multiforme, graft-versus-host disease (6). TS are preferred in long-term treatments because of their advantages such as strong anti-inflammatory and immunosuppressive effects, low side effects when used properly, and minimal systemic absorption (7).

In cases with gingival tissue involvement first and basic stages of periodontal treatment are the mechanical removal of bacterial plaque and dental calculus that plays a role in the etiology of periodontal diseases, and the establishment of oral hygiene. Local or systemic antimicrobial agents, antibiotics, and corticosteroids can be used to support periodontal treatment if the targeted improvement cannot be achieved. This case series aim to evaluate the effect of topical corticosteroids isolated by the physician on the red lesions of the gingiva that do not heal with periodontal treatment.

CASE 1

A 24-year-old female patient was admitted to the periodontology clinic with complaints of gingival bleeding and bad breath. Her medical history showed no systemic disease. Findings of clinical examination were intense plaque accumulation due to poor oral hygiene, gingival edema, hyperemia, and bleeding with a mild intervention by a periodontal probe. In addition, localized red lesions were observed in the free and attached gingiva, unlike erythema due to plaque accumulation (Figure 1A). The mean plaque index before treatment was 2.5 and the gingival index was 2.2. Initial treatment was administered to the patient, oral hygiene training was given and she was called for control at regular intervals. Although some gingival improvement was achieved after the initial treatment, hyperemia continued. Gingival hyperemia was inconsistent with the amount of plaque and calculus. The patient was followed up at regular intervals for three months. Topical corticosteroid (Kenacort–A Orabase, Deva, İstanbul) was applied by the physician once a day for 5 days to the persistent lesions that did not respond to conventional periodontal treatment after three months (Figure 1B). The area was isolated with cotton rolls, so tongue and mouth movements and saliva did not reduce the effectiveness of the drug (Figure 1C). The agent applied to the cotton swab was left on the lesion for 60 seconds and the patient was advised not to take any food or liquid for 30 minutes after the application. The patient was called for monthly follow-up examinations. At the end of the treatment process, it was observed that there were significant improvements in the lesions (Figure 1D).

CASE 2

A 14-year-old female patient applied to our clinic with the referral of another physician. Her medical history showed no systemic disease. In the clinical examination; oral hygiene was adequate and the mean plaque index before treatment was 0.5 and the gingival index was 0.2. Linear erythema was observed in the maxilla anterior vestibule region (Figure 2A). Initial periodontal treatment was applied to the patient. Despite conventional treatments, improvement in red le-

sions could not be achieved. After three months from conventional treatment, topical corticosteroid (Kenacort–A Orabase, Deva, İstanbul) application was performed with the procedure described above, and the lesions completely healed (Figure 2B).

CASE 3

A 29-year-old female patient was admitted to our clinic with the complaint of gingival redness that persists for 3 years. The patient stated that she had been treated many times during this time and used many drugs, but her gums did not heal. Clinical examination of the systemically healthy patient showed erythema in the free and attached gingiva in the anterior vestibule region of the mandibula (Figure 3A). Plaque and calculus were minimal, and the mean plaque index before treatment was 0.6 and the gingival index was 0.4. The patient received non-surgical periodontal treatment and oral hygiene training. The patient was called for follow-up at regular intervals. After three months, topical corticosteroid (Kenacort–A Orabase, Deva, İstanbul) treatment was applied to persistent red lesions with the same procedure. At the end of the healing process, the complete disappearance of lesions was observed (Figure 3B).

CASE 4

A 48-year-old female patient was admitted to our clinic with the complaint of bleeding in her gingiva. She had no systemic diseases and she had been using a fixed prosthesis for 5 years in her dental anamnesis. In the clinical and radiographic examination findings were gingival redness and edema, increase in pocket depth, and clinical attachment loss, and the patient was diagnosed with periodontitis (Figure 4A). The erythema seen in the anterior region of the maxilla was localized in the free and attached gingiva and was redder than the alveolar mucosa. The patient was given initial periodontal treatment and oral hygiene training was given. Then, a flap operation was performed on the area to eliminate pathological pockets. Topical corticosteroids (Kenacort–A Orabase, Deva, İstanbul) were applied with the same procedure to persistent red lesions that did not heal after six months from the operation (Figure 4B). Adequate recovery was achieved at the end of the treatment process and fixed prosthetic restoration was performed (Figure 4C). No recurrence was observed in the 5-year follow-up (Figure 4D).

Nikolsky sign was negative in all cases and no mucocutaneous lesion was observed.

Figure 1A

Figure 1B

Figure 1C

Figure 1D

Figure 2A

Figure 2B

Figure 3A

Figure 3B

Figure 4A

Figure 4B

Figure 4C

Figure 4D

Report ethics

Written informed consent was obtained from the patients for the publication of these case reports and the accompanying images.

DISCUSSION AND CONCLUSION

Periodontal diseases are chronic infectious diseases that cause inflammation in dental support tissues. The primary etiological factor is pathogenic bacteria and their products in microbial dental plaque. Many genetic, environmental, and systemic factors that drive the host response also influence disease onset, progression, and severity (8). The currently accepted treatment method for periodontal diseases is traditional periodontal treatments that include oral hygiene education, tooth surface cleaning, and root surface straightening. In cases where the effect of non-surgical periodontal treatment is little or insufficient, some drugs can be used to support non-surgical periodontal treatment (9).

Topical corticosteroids are classified according to their effectiveness as mild, moderate, potent, and very potent. Triamcinolone acetonide, which is in the moderate group, is a frequently preferred agent because of its orabase form that adheres to the oral mucosa, its effectiveness, and ease of use (10).

Thongprasom et al. in their study, applied 0.1% topical triamcinolone acetonide to 7 of 13 patients diagnosed with lichen planus, and 0.1% topical cyclosporine treatment to 6 of them 3 times a day. After 2 weeks, 33.5% improvement was observed in the lesions of the patients treated with cyclosporine, while the lesions of the patients treated with triamcinolone acetonide were improved by 50% (11).

In another study by Voute et al. the efficacy of topical corticosteroid use with the help of adhesive tape was evaluated in 20 patients diagnosed with oral lichen planus (12). In the follow-up of the patients for 3-17 months; it was reported that 20% had a complete and 60% a good-partial response to treatment while in the placebo group no complete response was obtained in any of the patients and the responses were evaluated as good-partial remained 30%.

Topical corticosteroids are among the drugs preferred in the treatment of recurrent aphthous stomatitis (13). A double-blind, placebo-controlled study evaluated the efficacy of topical corticosteroids in the treatment of recurrent aphthous stomatitis. It was reported that the duration of aphthae was shortened and the symptoms were reduced in the topical corticosteroid group compared to the placebo group (14).

In a case report, topical corticosteroids were used

in the treatment of rare plasma cell mucositis and improvement was reported in resistant oral lesions (15).

Although topical corticosteroids are frequently used in the treatment of many oral mucosal diseases in the literature, usage patterns and doses vary. The oral mucosa is a moist environment due to saliva and it is constantly exposed to mouth and tongue movements; this may result in reduced effectiveness of the local agents. Examination of studies that evaluate the efficacy of TS in the treatment of oral mucosal diseases showed that TSs were generally administered by the patient. In our study, the area to be treated with TS was isolated and the agent was applied by the physician at regular intervals, preventing the decrease in the effectiveness of the drug in the mouth.

Non-surgical periodontal treatment was applied to three of the cases and periodontal surgical treatment was applied to one, and it was observed that the red lesions did not show sufficient healing at the end of the process. Significant improvement was observed in red lesions following topical corticosteroid application. In resistant oral lesions, in addition to periodontal treatment and improvement of oral hygiene, topical corticosteroid application is beneficial for controlling lesions and regaining oral health.

Topical corticosteroids provide successful clinical results in the treatment of various diseases affecting the oral mucosa when applied correctly by the physician, not by the patients. Therefore, dentists should know the indications, side effects, and clinical application methods of topical steroids in order to apply an effective treatment in oral mucosal diseases and to protect patients from possible side effects.

Conflict-of-interest and financial disclosure

The authors declare that they have no conflict of interest to disclose. The authors also declare that they did not receive any financial support for the study.

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