



## DESQUAMATIVE GINGIVITIS: A DIAGNOSTIC DILEMMA

Minakshi Rana<sup>1</sup>, Preeti Upadhayay<sup>2</sup>, Anita Hooda<sup>3</sup>, Amit Dahiya<sup>4</sup>, Arun Kumar<sup>5</sup>

<sup>1</sup>Department of Periodontology, Manav Rachna Dental College and Hospital, Faridabad, Haryana, India.

<sup>2</sup>Department of Periodontology, Indraprastha Dental College and Hospital, New Delhi, India.

<sup>3</sup>Department of Oral Anatomy, <sup>4</sup>Orthodontics, <sup>5</sup>Pedodontics & Preventive Dentistry, Post Graduate Institute of Dental Sciences Rohtak-124001, Haryana, India.

Corresponding Author:- **Arun Kumar**

**E-mail:** drarun922@gmail.com

<p><b>Article Info</b>  <i>Received 15/06/2015</i>  <i>Revised 27/07/2015</i>  <i>Accepted 15/08/2015</i></p> <p><b>Key words:</b>          Gingivitis,          Desquamative,          Ulcerative,          Immunosuppressants.</p>	<p><b>ABSTRACT</b></p> <p>Desquamative gingivitis is a fairly common disorder, with wide range of causes. It is clinically characterized by erythematous and desquamative involvement of the free and attached gingiva. It may be the initial symptom of the underlying disorder, and patient may therefore present to the general dental practitioner or specialist in Periodontology. The presence of plaque induced gingival inflammation may exacerbate the condition, mask histological features of the underlying disorder, and can lead to delay in diagnosis and misdiagnosis. The present report describes case of desquamative gingivitis and its management.</p>
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### INTRODUCTION

Desquamative gingivitis is a fairly common disorder, with wide range of causes, most commonly lichen planus and mucous membrane pemphigoid. Chronic desquamative gingivitis was coined in 1932 by Prinz. [1], to describe a peculiar condition characterized by intense erythema, desquamation and ulceration of free and attached gingiva. In 1960, McCarthy et al suggested that desquamative gingivitis is not a specific disease entity, but a gingival response associated with a variety of conditions [2]. Various mucocutaneous conditions involved under desquamative lesions are lichen planus, pemphigus, pemphigoid, epidermolysis bullosa, chronic ulcerative stomatitis, systemic lupus erythematosus, linear IgA disease. Around 95% of total desquamative gingivitis cases account for lichen planus and cicatricial pemphigoid. Providing an exact diagnosis to desquamative lesion becomes very difficult due to various differential diagnostic lesions including chronic bacteria, viral and fungal infection, as well as reaction to medications, mouthwashes, and chewing gum. Some less common, Crohn's disease, sarcoidosis, some leukemias also present

clinically as desquamative lesion [3]. Therefore it is of paramount importance to ascertain identity of disease responsible for desquamative gingivitis. Management of oral symptoms includes removal of contributing/causative factors where possible and medication with topical and systemic immunosuppressants.

### Case report:

A 53 year old female patient reported to department of Periodontology, Manav Rachna Dental college, Faridabad with a chief complaint of inability to eat and drink food because of burning sensation associated with gums from two years. Patient had a medical history of hysterectomy 2 yrs ago and patient also had a tooth supported metal base fixed prosthesis for maxillary 1<sup>st</sup> molar and for entire mandibular arch since 2 years. Intraoral examination revealed bilateral erythematous and diffuse desquamative lesions of the gingival in maxillary arch. (Figure 1). The associated teeth had no mobility but had bleeding on probing, and a variable amount of dental biofilm was observed. Hematological and urine analysis



were within normal range. Based on the clinical features and biopsy reports a diagnosis of erosive oral lichen planus was made (Fig. 2).

**Management of case:**

During initial visit the possible etiology suggested for the diagnosis was the patient's medical history of hysterectomy and is on maintenance. Treatment provided to patient during 1<sup>st</sup> visit was non-surgical periodontal therapy consisting of scaling and root planing. Patient was advised topical application of corticosteroid [betnesol (0.5mg)] over the lesion 3-4 times a day, along with NSAID (Tantum) mouthwash. Alcohol free chlorhexidine mouth wash was also advised twice daily for oral hygiene maintenance. Patient was then recalled after 1 month for further evaluation.

On recall visit (after 1 month from initial visit) the lesion was less erythematous but striae had increased. Patient also reported no relief in burning sensation and discomfort was more in mandibular 3<sup>rd</sup> molar region suspecting to be the etiology for the discomfort. (Figure 3). Thus patient was advised extraction for 38 and 48 as patient had undergone extraction of opposing contralateral teeth few years back. After 1 week of extraction (1.5 month from initial visit) patient was reassessed and was advised immunomodulators (levamisole) for 1 month seeking immunosuppression as an etiology due to age and long standing lesion.

After 1 month (i.e. 2.5 months from initial visit) of immunomodulator therapy, patient was reassessed and

to our surprise there was increase in patient's symptoms. Thus oral hygiene instructions were reinforced and immunomodulators were discontinued. (Figure 4,5)

The suspected etiology at this point of time after failure of immunomodulator drugs ruled out to be a parasitic infection, so patient was advised anti-helminthic (Vermisol 150mg) and steroidal (kenacot) ointment application over the lesion for 1 month.

On re-evaluation (4 months from initial visit), no improvement in lesion as well as burning sensation was reported by the patient. Again thorough non-surgical periodontal therapy was done for the patient along with it patient was prescribed topical application of Dexamethasone oral solution (0.5mg per 5ml) twice daily after meals. After 1 week of its use patient got around 70-80% of symptomatic relief but our effort to treat the patient went in vain as the symptoms again appeared after 2 weeks (5 months from initial visit). (Figure 6,7)

Following the recurrence, the metal base prosthesis was suspected to be an etiologic factor, so it was planned to remove the tooth supported metal base prosthesis (Figure 8). Endodontic therapy was planned for abutments on which prosthesis was supported, followed by prosthetic rehabilitation. Patient was asked to continue with dexamethasone oral solution (0.5mg per 5ml) for another 1 month and was kept on regular recall visits.

After 8 month recall visit, patient got symptomatic relief and lesion subsided clinically.(Fig. 9) Mandibular prosthesis was placed. (Fig. 10) Patient was further kept on regular recall visits.

**Figure 1. Pre-operative clinical picture showing erosive lesion and nikolsky sign i.r.t 13, 14**



**Figure 2. Photomicrograph of Biopsy specimen after Hematoxylin & Eosin staining at (40 X and 10 X)**



**Figure 3. Healed lesion after 1 month of scaling & root planing along with Betnesol 0.5mg ointment application**



**Figure 4. Recurrence in 2<sup>nd</sup> quadrant after 3 months from initial**



**Figure 5. Erosive lesion on palatal aspect i.r.t 25,26 (after 3 months)**



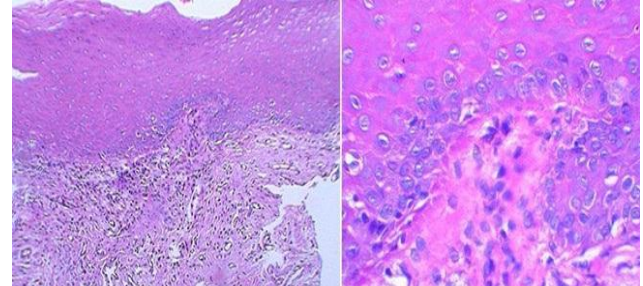
**Figure 6. Recurrence of lichen planus lesion over 21,22,23,24,26 (after 5 months)**



**Figure 7. Recurrence of erosive lesions i.r.t 13,14 (after 5 months)**



**Figure 8. After removal of prosthesis in mandibular arch (after 5.5 months)**



**Figure 9. Completely healed lesion (after 8 months)**



**Figure 10. Final prosthesis placed in mandibular arch**



## DISCUSSION

The gingiva is a target of autoimmune diseases and about 10% of patients with oral lichen planus (OLP) have the disease confined to the gingiva, clinically named desquamative gingivitis (DG). It can present as reticular, erosive or atrophic subtypes however, the clinical appearance of DG is not pathognomonic and may represent the gingival manifestation of many other autoimmune diseases [4]. Exacerbations of DG have been associated to periods of psychological stress, anxiety and mechanical trauma [5]. Chronic low-grade irritation from dental biofilm, calculus, may also cause exacerbation of DG. The presence of gingivitis and periodontitis can complicate the symptoms of DG [6]. On the other hand, Ramon-Fluixa C, Bagan-Sebastian J, Milian MM, Scully C (1999) suggested in global terms that periodontal status in lichen planus is no worse than that observed among healthy controls; therefore, periodontal attachment loss was found to be very similar in lichen planus patients both with and without gingival involvement [7]. They failed to demonstrate that lichen planus patients have increase long - term risk of periodontal disease. There is a large amount of available

treatments due to recurrence, high prevalency and risk for malignant transformation of oral lichen planus [8]. Anti-inflammatory agents mainly topical corticosteroids are widely used in the treatment of OLP. Other therapeutic agents that have been investigated are acitretin, retinoids, immunosuppressants such as cyclosporin, azathioprine, mycophenolate, mofetil, tacrolimus and pimecrolimus, thalidomide, interferon alpha, levamisole and phototherapy [9]. Out of the large number of options available, corticosteroids are most widely used for the treatment. Corticosteroids suppress the cell mediated immunity but the response to the drug may differ from patient to patient. Topical corticosteroids have not been reported to have any systemic side effects and can be used safely [10]. In the present case, steroidal therapy have not proven a success in improving the patient's condition and discomfort till now. The various different etiological factors responsible for oral lichen planus make its treatment complicated and diffuse in nature with no definitive treatment outcome. In the present case various etiological factors were considered at each recall visits and treatment was provided to patient

accordingly but no improvement in patient symptoms was noted for a period of 8 months. No standard treatment regimen is available to treat the lesion permanently; the main dilemma remains with depicting its etiology and to provide appropriate treatment for relieving patients symptoms.

## CONCLUSION

In view of the chronic nature of desquamative gingivitis and frequent reactivations, the patients should be

monitored throughout life. It is not only important to control the symptoms but as a dentist it is our responsibility to treat and relieve patient sufferings from desquamative gingivitis.

In the present scenario the management of desquamative gingivitis can be challenging for oral health practitioners. Periodic follow-ups should be performed and treatment started immediately when gingival lesions recur.

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