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CASE STUDY

CHRONIC DESQUAMATIVE GINGIVITIS – A CASE REPORT

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ABSTRACT

Desquamative gingivitis is a clinical term associated with a variety of clinical conditions and is characterized by the erythematous gingiva, desquamation, ulceration and erosion of gingival epithelium. It may be a manifestation of a variety of dermato - mucous disorders and conditions such as dermatitis, bullous pemphigoid, pemphigus, psoriasis, cicatricial, herpetiformis, lichen planus, erythema mulitiformae. of all the diseases entitled, Lichen Planus is a relatively most common disorder affecting the skin as well as the mucous membrane. The lesions of oral lichen planus have myriad but distinct morphology and as they mimic many other mucocutaneous disorders, many lesions of oral lichen planus are diagnosed wrongly. This case report describes a case of desquamative gingivitis which was diagnosed with erosive lichen planus based on symptoms, clinical findings and histological examination.

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INTRODUCTION

"Chronic Desquamative gingivitis" was described for the first time by Tomes and Tomes in 1894 (Guiglia *et al*., 2007). The term "Chronic diffuse desquamative gingivitis" for chronic diffuse inflammation cases which were characterized by severe epithelial desquamation in the marginal gingival (Prinz, 1932). Desquamative gingivitis (DG) is not a specific disease, but a gingival response manifested by varieties of clinical diseases entities including a number of mucocutaneous conditions and dermatoses; like Lichen planus, pemphigus, erythema multiformae, lupus erythematous. In 1964, Glickman and Smulow stated that DG could be the symptom of severe conditions, especially mucocutaneous diseases (Glikman and Smulow, 1964; Scully and Porter, 1997). DG as a presenting feature is most commonly noticed in Oral Lichen Planus (OLP) (Scully and Porter, 1997). Lichen planus is a relatively common immunologically mediated mucocutaneous disease of unknown aetiology. It is more common in middle aged to elderly females. The most common site of involvement is buccal mucosa followed by the tongue and the gingiva. The gingiva may be the only site of involvement in about 10% of cases. The atrophic form of Lichen planus present often on the gingiva giving the classical appearance of DG. The whole thickness of the attached gingiva up to mucogingival junction may be affected.

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The tissues of gingiva appear erythematous with erosion and possibly white striae at the periphery (Jandinski and Shklar, 1976). This case was diagnosed as chronic desquamative gingivitis with erosive lichen planus based on symptoms and clinical and histological findings.

CASE REPORT

A 37 year old female patient reported to Dept. of OMR with the chief complaint of burning sensation in the gums of anterior region of upper and lower jaw associated with redness and spontaneous bleeding for last 5 years. The burning sensation was aggravated during consumption of hot and spicy food stuffs. Medical history was non-contributory. Personal history revealed that patient was a non-smoker, brushes her teeth with toothbrush and avoid hot and spicy food, all of which rule out the possibility of thermal burn or any other allergic reactions. The patient had visited a private dental clinic 6 months back for the same and had advised oral prophylaxis and prescribed an ointment for topical application all over the lesion. There was no relief from symptoms.

Intra oral examination of lesion

On inspection of gingiva it appears reddish, inflamed and generalised erosion throughout the maxillary and mandibular marginal, attached and interdental papillae with irregular margin with rough surface and peripheral erythema (Fig. 01). On palpation lesion was rough, non-scrapable and tender. On inspection of buccal mucosa greyish white striae was seen

bilaterallyin the line of occlusion extending from corner of mouth to pterygomandibular raphe measuring 5 x 3cm, irregular margins, interspersed with area of pigmentation and periphery erythema (Fig. 02). On palpation, lesion was rough, non-scrapable, mobile and non-tender. Periodontal findings include generalised attrition and due to burning sensation and pain, oral hygiene measures were difficult and discouraged for the patient. Patient was advised for CBC and biopsy. Based on history, clinical and histological findings, a diagnosis of chronic desquamative gingivitis with erosivelichen planus was established. Based on diagnosis patient was advised for soft and bland diet, oral prophylaxis, topical application of clobetasol propionate gel mix with clotrimazole mouth paint 3-4 times/day, gargling with dexamethasone 0.5 mg tablet 3-4 times/day, antioxidant capsule twice a day and analgesic gel for application before meal for 7 days. Patient was recalled after 7 days for follow up.

Second visit

The patient was re-evaluated after 7 days; administration of steroids led to improvement of clinical symptoms (Fig. 03). Patient was advised for to continue the prescribed drugs and recalled after 10 days for follow up and oral prophylaxis.

Third visit

The patient was re-evaluated after 10 days. Within 2 weeks, most of the lesions in the mouth had reduced (Fig. 04). Since the lesions resolve, the patient was instructed to stop the previous medication and was advised for oral prophylaxis and prescribed topical triamcinolone ointment 0.1%, 2-3 times/day for 7 days.

Figure 1.

Figure 2.

Figure 3.

Figure 4.

DISCUSSION

Chronic desquamation gingivitis is a clinical condition characterized by the intense erythema, desquamation, ulceration and erosion of the marginal and attached gingival epithelium and blister formation. The term “desquamation” is derived from the Latin word ‘Desquamare’, which means scraping fish flakes. As a word, desquamation means ‘loss of epithelial tissues in small and large amounts, peeling of skin and exfoliation (http://en.wikipedia.org/wiki/Desquamation). It is not a diagnosis alone but a gingival response associated with a variety of clinical conditions. Several mucocutaneous diseases in which clinical desquamative gingivitis is observed have been reported in the literature (Table 1). The desquamative gingivitis is seen after puberty, especially in women in 4th to 5th decades of life with the complaints of burning sensation. Upto 75% ofcases also have a dermatological basis. Lichen planus and cicatricial pemphigoid account for more than 95% of these dermatologic cases (DeRossi and Greenberg, 1998). About 50% of patients who have OLP also have skin lesions (Yiannias *et al*., 2000). In 1869, this condition was initially described by Wilson. Prevalence in the general population is between 0.5% - 2% while in India it is 1.5% (Greenspan *et al*., 1978). The oral lesions are seen clinically as bilateral white striations, plaque on buccal mucosa, tongue and gingiva with erythema, erosions and blisters (Kirtschiq *et al*., 1999). Lichen planus is believed to be a T-cell mediated autoimmune disorder. The T-cell and CD8 cells or the cytotoxic T-cell trigger apoptosis of the oral epithelium by recognizing class I major histocompatibility complex (MHC) antigen on oral

Table 1. Disease in which DG is clinically observed

- Lichen Planus..... Scully et al. (2), 1997; Lo Russo et al. (20), 2008
- Mucous membrane pemphigoid..... Chan et al.(21), 2002; Alkan et al. (22), 2003
- Pemphigus vulgaris..... Navarro et al. (23), 1999; Scully et al. (24), 1999; Boy etal. (25), 2006; Scardina et al. (26), 2005
- Bullous pemphigoid..... Yih et al. (27), 1998;Sklavounou and Laskaris (28), 1983
- Paraneoplastic pemphigus..... Yih et al. (27) , 1998
- Dermatitis herpetiformis..... Chorzelski and Jablonska (29), 1975; Egan et al. (30),1997
- Chronic ulcerative stomatitis..... Lorenzana et al. (31), 2000
- Linear Ig A disease..... Porter et al. (32), 1992; del Valle et al. (33), 2003
- Psoriasis..... Jones and Dolby (34), 1972
- Pyostomatitisvegetans..... Wray (35),1984
- Erythema multiforme..... Arteaga and Eisenberg (36), 1990
- Diskoid lupus erythematosus..... Blanco et al. (37), 2000
- Dyskeratosis congenital..... Anil et al. (38), 1992
- Epidermolysis bullosa..... Kossard et al. (39),1979
- Graft-versus-Host disease..... Lo Russo et al. (20), 2008
- Plasma cell gingivitis..... Lo Russo et al. (6), 2009; Leao et al. (13), 2008
- Foreign body gingivitis..... Leao et al. (13), 2008
- Kindler syndrome..... Ricketts et al. (40), 1997
- Ulcerative colitis..... Ricketts et al. (40), 1997
- Hepatitis C..... Lo Russo et al. (6), 2009
- Akutmiyeloidlösemi (AML)..... Lo Russo et al. (20), 2008
- Dermatomitosis, mixed connective tissue disorders..... Leao et al. (13), 2008
- Crohn disease..... Scully and Porter (2),1997
- Sarcoidosis..... Scully and Porter (2),1997
- Drugs or chemicals implicated include various oral health care products..... Corrocher et al. (11), 2006; Kuttan et al. (41), 2001
- Sodium lauryl sulphate.....Herlofson and Barkvoll (42),1993; Ahlfors and Lyberg (43), 2001
- Magnesium monoperoxyphthalate..... Scully et al. (44) ,1999

keratinocytes (Greenspan et al., 1978). Unmasking the antigen could be induced by drugs such as NSAID's, sulfonylurea, anti-malarial, beta blockers and ACE inhibitors. The lesions of lichen planus exacerbate during stress followed by periods of remission (Kirtschiq *et al*., 1999). Clinically, oral erosive lichen planus is manifested by the presence of vesicles, bullae or ulcers of the oral mucosa. The lesions are sometimes surrounded by fine white radiating striations which usually persist for weeks to months (Bagan *et al*., 2005). The erosive form of lichen planus is associated with severe erythema, burning sensation and sensitivity to heat, acid or spicy foods (Black *et al*., 2005). In current case patient reported with a chief complaint of burning sensation in mouth while taking hot and spicy food stuffs. Maxillary and mandibular marginal and attached gingival tissues in anterior region were affected. Patient was middle - aged with stress as the common precipitating factor in the pathogenesis. The patient's clinical and histological examinations were suggestive of erosive lichen planus. Treatment of gingival lichen planus is professional scaling and root planning as well as effective but atraumatic oral hygiene needs to be maintained. The treatment of choice for erosive form of lichen planus is topical corticosteroids. Intralesional steroids can be used for indolent lesions and for severe lesions systemic corticosteroids may be considered for short time period. For a patient with severe erosions resistance to topical steroids, cyclosporine mouthwash may be adviced (Xavier et al., 2007). Tacrolimus has recently been used in a topical form and has been reported to be useful. Systemic isotretinoin and topical isotretinoin may also useful in these cases. Systemic etretinate, dapsone or photochemotherapy have also been reported to be effective in severe resistant cases (Huang *et al*., 2007; Wang *et al*., 2011).

Conclusion

A large number of cases of erosive lichen planus present with a picture of chronic desquamative gingivitis. However, it is important to remember that desquamative gingivitis is not a diagnosis but may manifest as a result of various dermatoses or mucocutaneous disorders. Early diagnosis and treatment of DG will help us arrest the further progression of the disease. Periodic follow up and evaluation is mandatory for the appropriate management of the recurrence.

Patient consent: Obtained

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