Desquamative gingivitis as a clinical sign of oral lichen planus: review of literature

Abstract

The term desquamative Gingivitis (GD) is used in the area of oral medicine to explain a periodontal clinical condition not associated with biofilm, which is usually observed in a group of patients presenting with autoimmune diseases such as: lichen Oral plane, Pemphigus vulgaris, and mucous membrane pemphigoid, among others. Desquamative gingivitis is most commonly mistaken for other plaque-related types of gingivitis, preventing a correct diagnosis of the lesion and consequently underlying systemic processes, some of which present an important Morbidity and even mortality.

Keywords: desquamative gingivitis, lichen planus, erythematous lesions, gingivitis

Introduction

Desquamative Gingivitis is a term that indicates diffuse desquamation, erythema and erosion of marginal and inserted gum, introduced by Pritz in 1932. It’s a clinical sign of chronic evolution with periods of remission and exacerbation. It’s a gingival alteration not associated with biofilm and is framed within the gingival manifestations of systemic conditions. The lesions affect the gingiva free and adhered mainly, and according to the clinical affection can be distinguished two types:  

a. Mild forms: Its course is acute, characterized by the presence of erythema and mild desquamation without ulceration. They are localized lesions caused by allergic mechanism or hypersensitivity to oral hygiene products, or trauma from parafunctional or aggressive brushing habits.

b. Severe forms: They are a clinical manifestation of various mucocutaneous diseases. They have erythema, desquamation, and painful ulcerations that affect free and adhered gums.

Oral Lichen planus (LPO) is an inflammatory mucocutaneous disease of unknown origin, but with an indication of being related to defense cells due to the prevalence of T-lymphocytes and immunoglobulins. In most cases it occurs between 30 and 60 years, is classified in: Reticulate, erosive and plaque. Desquamative Gingivitis can occur in all three types without clinical differences. LPO occurs more frequently with a reticular pattern and may even be asymptomatic, however in its erosive variant the lesions may occur with multiple ulcers in the oral cavity, which usually take pain and even present lesions Blisters.

Literature review

Since 1856 it had already been reported in several books, as well as in medical and dental journals a type of chronic gingivitis described as unusually painful and with localized and generalized hemorrhage. In 1894, take and take described for the first time these lesions in the English-speaking literature and in 1932, Prinz named this condition as Desquamative chronic gingivitis. For many years, Desquamative Gingivitis was thought to be a pathological entity of unknown etiology, which was possibly triggered by a deficiency of sex hormones in older women and rarely manifested in men. Today, however, there is little evidence to support this concept.

The term desquamative gingivitis is a clinical description, not a diagnosis. Erythematous lesions, located in the free and adhered gum, characterize it. Most of the time the changes are confined to the vestibular region and range from light red to intense. The epithelium is easily detached, as a consequence of the vesiculo-erosive lesions, leaving the connective exposed and bleeding to the slightest stimulus. Rarely the lingual or palatal gum is compromised and the most common causes are lichen planus, mucous pemphigoid or Pemphigus. However, if this definition is used, the most frequent cause is lichen planus. This can affect the gum around even variable number of teeth. When the cause is a lichen planus, white scales may be identified on a red background. Desquamation or formation of blisters or small epithelium polyps may be identified on the margins of epithelial separation zones.

General clinical features

The clinical characteristics of this disease vary according to the severity of the lesion: the gingival mucosa acquires a bright red color, with small greyish opaque plaques, which take both the free and adhered gums. The superficial epithelium, when rubbed, is detached and reveals the connective tissue that, to clinical exploration, is very painful and bleeding. There is a dry burning sensation in the mouth and sensitivity to thermal changes. Highly seasoned foods are not tolerated and tooth brushing is very annoying, so plaque control is difficult, and patients often develop secondary, marginal gingivitis. The severity of desquamative gingivitis varies; Glickman and Smulow, quoted by Lemus and collaborators, have described the forms mild, moderate and severe.

Diagnosis

To begin the evaluation of desquamative gingivitis, it is essential to obtain a thorough anamnesis. The facts about the symptoms related to this condition, as well as the antecedents (onset of the lesion, aggravation, habits that exacerbate it, among others) represent the basis for a precise examination.

Clinical examination

Recognition of the pattern of distribution of lesions (focal or multifocal, confined to the gum or not) provides the information needed to formulate the differential diagnosis. In addition, the positive Nikolsky sign, obtained through a simple maneuver, makes evident the presence of a vesiculo-blottering disorder.
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C. Atrophic lesions: atrophy of the gingival tissues, with the consequent thinning of the epithelium, causes Erythema limited to the gingiva.

Histopathology

Histologic picture is characterized by hyperkeratosis, parakeratosis, and basal cell degeneration. There is a dense lymphocytic infiltrate in the dermis, with the presence of CD4 and CD8 lymphocytes. Immunofluorescence testing is positive for IgA, IgG, and IgM, indicating a humoral immune response. The oral cavity is affected, with the presence of ulcers and erosions.

Immunofluorescence: Immunofluorescence tests are positive, if an immunofluorescent signal is observed in the epithelium, basal membrane or connective tissue underlying a specific area of antigens in human serum (anti-IgG, anti-IgA, anti-IgM, Anti-fibrin and anti-C3) marked with Fluorescein. By correct diagnosis, the different alterations that lead to the emergence of chronic desquamative gingivitis has been established, which has been considered as a sign of a wide variety of vesiculo-blistering diseases. The AAP, in its exhaustive classification for the superficial chronic inflammatory processes, includes all those gingival manifestations of systemic conditions, and groups them in: mucocutaneous disorders (Lichen planus, pemphigoid, Pemphigus vulgaris, erythema multiforme, lupus erythematosus, drug-induced and others), allergic reactions (mercury, nickel, acrylic, others), reactions attributed to toothpastes, mouthwashes, chewing gum additives, food additives) and other unspecified conditions. Due to the importance of these systemic conditions for the establishment of the accurate diagnosis, it was considered necessary to particularize in the alterations that they study with gingival manifestations of desquamative type.

Histopathology

The most frequent oral lichen planus is the oral cavity, however it is difficult to give an accurate prevalence data, since the numbers vary depending on the geographic region to be studied. In some patients it may affect the skin, oral mucosa and also other mucous membranes while in others it compromises the skin and oral mucosa only. It is type of oral lichen planus (LPO) a thin, whitish reticulate, called Wickham striae, slightly elevated, which tend to adopt a reticular arrangement, arboriform in the form of lace. In the LPO, they most frequently affect the oral vestibular mucosa, and the palate and sublingual region are rare. Gingival involvement is common, and in about 10% of cases LPO is observed only in the gums. The typical presence is that of chronic desquamative gingivitis.

Gingival lesions may present the following patterns:

A. Keratotic lesions: white and elevated defects, with the appearance of groups of individual papules, such as linear lesions, reticular or plaques.

B. Erosive or ulcerative lesions: extensive erythematous areas of irregular distribution, which may occur as focal or diffuse hemorrhagic regions. Vescicular or blistering lesions: elevated, liquid-occupied abnormalities, rare and short-lived in the gum, as they soon rupture to leave an ulcer.

Immunologic disorders: cicatricial pemphigoid, lupus, Morphea.

Microbial lesions: syphilis, fungi.

factitial injury, radiation, other physical or chemical agents.

3. Immunologic disorders: cicatricial pemphigoid, lupus, Morphea.

4. Anormogénesis, hyperplasia and benign tumors: white nevus, dyskeratosis, psoriasis.

5. Precancer and cancer: Leukoplakias

When we are faced with a form of lichen planus red predominance with erythema-desquamative lesions, the differential diagnosis should be performed mainly with other Vesciculo-erosive lesions such as Erythema multiform, Pemphigus vulgaris or Pemphigoid.

Treatment

There is No drug that solves the lichen planus alone and
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Acknowledgements

None.

Conflict of interest

Author declares that there is no conflict of interest.

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