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PLASMACYTOSIS - A RARE CASE REPORT

Dental Science

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ABSTRACT

Plasmacytosis is a very rare, chronic ,multifocal, benign and inflammatory condition of unknown etiology. It is known as a plasma cell proliferative disorder mostly involving the gingiva, lips and the upper aerodigestive tract. This article describes a very rare case of orofacial plasmacytosis that affected the buccal and palatal gingiva of maxillary anterior tooth region and its management.

KEYWORDS

INTRODUCTION:

Plasmacytosis (plasma cell mucositis, mucous membrane plasmacytosis, oral papillary plasmacytosis) is a chronic, multifocal, idiopathic, non-neoplastic plasma cell proliferative disorder of the upper aerodigestive tract. Not more than 50 cases were reported in the literature[1]. It was first reported by Zoon in the year 1952. The clinical and histological features of plasmacytosis may resemble many common benign and neoplastic conditions of the oral cavity and hence it is a diagnosis requiring extensive investigations and multidisciplinary evaluation.

CASE REPORT:

The present case is about a 29 year old male patient reported to the Department of Oral and Maxillofacial Surgery, Meghna Institute of Dental Sciences, Nizamabad with a chief complaint of swelling in upper front tooth region since one month.

Patient gives history of swelling since one month which has gradually increased to present size. Swelling is associated with pain which is localized, continuous, dull which aggravates during mastication and also gives history of bleeding during mastication.

Fig 1: pre operative clinical photograph

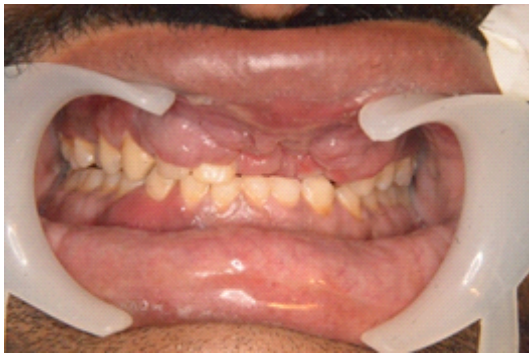

Fig 2: clinical presentation of case

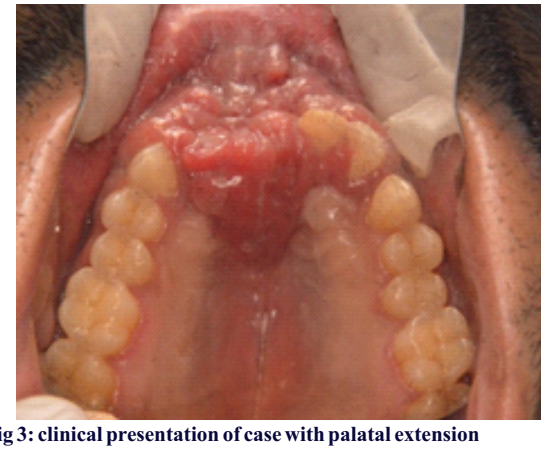

Fig 3: clinical presentation of case with palatal extension

Extraorally, on examination facial asymmetry is seen with swelling seen in relation to upper lip.

Intraorally, on inspection proliferative nodular erythematous growth is seen in relation to maxillary anterior tooth region extending palatally superioinferiorly from maxillary vestibule to palatal region and anteroposteriorly from 13 to 23.

Missing tooth noted in relation to 11,12,21.

On palpation, lesion is tender and profuse bleeding on probing was noted. The axial section of computed tomographic scan image shows a hypodense lesion in the maxillary anterior region indicating unilateral

osteolytic destruction of the labial cortical plate extending from the midline to the canine region.

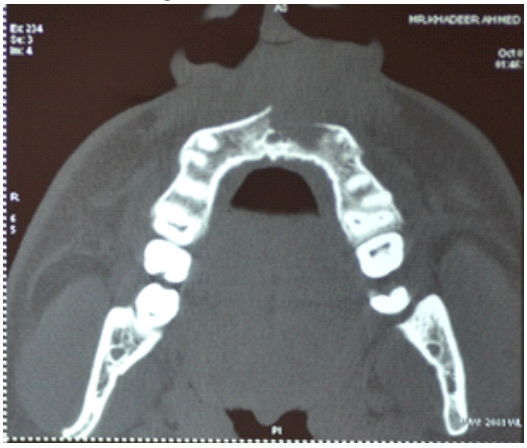

Fig 4: computed tomographic scan

Histopathological examination showed diffuse dense infiltrate of mature plasma cells and the report revealed Plasma cell gingivitis.

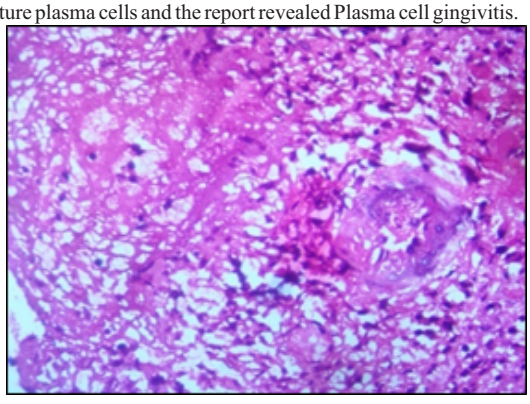

Fig 5: histopathological picture with H & E staining

Serum protein electrophoresis revealed increase in alpha, beta and gamma globulins. Test for Bence jones protein was negative. Special investigations such as Immunohistochemistry confirmed expression of polytypic light chains kappa and lamda stains and shows positive plasma cells.

From the clinical correlation, histopathology and special investigations like serum electrophoresis and immunohistochemistry; it can be diagnosed as Plasmacytosis. The patient was then prescribed systemic corticosteroids (tablet prednisolone 60 mg once daily) along with topical application of corticosteroids. The systemic steroid was then tapered after 2 months. Regular monitoring for side-effects of long term steroid therapy is carried out. After steroid therapy, patient had satisfactory results with no signs of recurrence

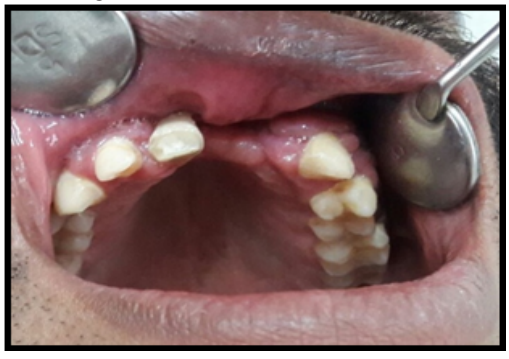

Fig 6: post operative clinical photograph

DISCUSSION:

Plasmacytosis is generally more common in males than females with mean age group of 56.6. Literature suggested that various allergens may cause plasmacytosis but no evidence could be found[2]. Various treatments have been used, including corticosteroids, immunosuppressants, , excision, carbon dioxide laser excision, radiotherapy, cryotherapy, and withdrawal of sus-pected allergens, but evidence of their efficacy is not known[3]. Our patient did not had any systemic conditions or allergens that could have caused the condition and, as in many other case reports, his signs and symptoms resolved spontaneously over several months[4]. A cautious approach to the use of corticosteroids and immunosuppresants with a periodic monitoring of their side effects should be adopted in view of the possibility of sponta-neous regression, and the potential risk of malignancy in future[5]. Patient should be scheduled for constant recall and follow up periodically.

CONCLUSION:

The clinical and histological features of plasma cell mucositis resemble many common benign and neoplastic conditions of the oral cavity. The exact etiology of Plasma cell mucositis is not known, but it may be result of hypersensitivity reaction to other unidentified environmental antigens. .Hence it is a diagnosis of exclusion requiring extensive investigations and multidisciplinary evaluation Long-term follow-up and new treatment strategies are therefore required.

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