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### Case Report

# STOMATITIS AREATA MIGRANS OF THE GINGIVA - A RARE CASE REPORT

Radhika Arjunkumar\*

BDS, MDS, Department of Periodontics, Saveetha Dental College, 162, PH road, Vellappanchavadi, Poonamallee, Chennai, India

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\*Corresponding Author: **Radhika Arjunkumar**

Department of Periodontics, Saveetha Dental College 162, PH road, Vellappanchavadi Poonamallee, Chennai- 600077

### ABSTRACT

A 28 year old male patient presented to the hospital with a no medical history and intra oral lesions consistent with stomatitis areata migrans of the gingiva (SAM). Gingival involvement with Stomatitis areata migrans was rare, with two purported instances. This paper presents, with clinical and histologic documentation of a patient having SAM with gingival involvement.

**Keywords:** Cooke's disease, Geographic Tongue, Gingiva, Stomatitis Areata Migrans.

### INTRODUCTION

Cooke in 1955 first described Stomatitis areata migrans (SAM)<sup>1</sup>. It is considered a more extensive involvement of the same process found in the geographic tongue. Geographic tongue is an interesting lesion of unknown etiology, although often related to emotional stress. Geographic tongue is also known as wandering rash of tongue, benign migratory glossitis, glossitis areata exfoliativa and erythema migrans. The condition comprises multiple areas of desquamation of the filiform papillae of the tongue in an irregular circinate pattern. The central part of the lesion sometimes appears inflamed, while the border may be outlined by a thin, yellowish white line or band. Stomatitis areata migrans is known by various other names such as erythema migrans, ectopic geographic tongue, geographic stomatitis, Cooke 's disease, erythema circinata migrans migratory stomatitis and migratory mucositis

### CASE REPORT

A 28-year-old male patient complained of pain in the right lower back tooth for the past 2 days. History revealed that the pain was insidious in onset dull intermittent pain aggravated by mastication and relieved by rest. There was no significant medical history. Intraoral examination revealed dental caries with apical periodontitis in 46, which warranted extraction. Gingival examination showed erythematous areas in marginal and attached gingiva in upper and lower anteriors and premolar region (Figure 1).

Examination of buccal mucosa, palatal mucosa, dorsum of tongue and floor of mouth for abnormalities revealed none. On

examination of the flexor and extensor surfaces of the arms and legs for any dermatological involvement, no abnormalities were found. The differential diagnosis for this patient's condition was either desquamative gingivitis or plasma cell gingivitis (history of change of tooth paste 2 weeks back). Routine hematological investigations yielded apparently normal reports.



**Figure 1:** Intra oral view: The anterior view showing erythematous areas in marginal and attached gingiva in the anterior and premolar region.

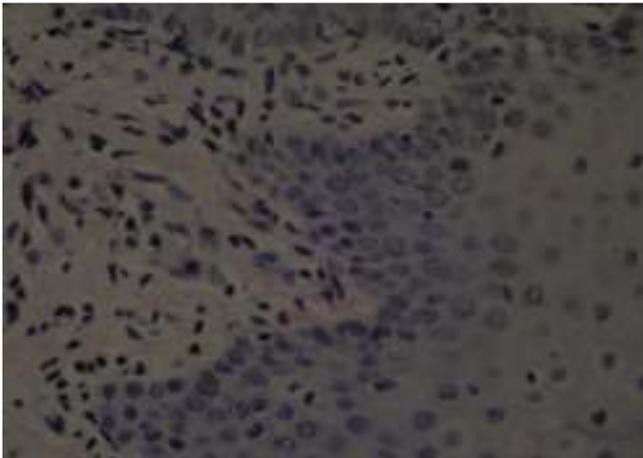
### Histopathology

The site of biopsy was the attached gingiva of the right upper first premolar tooth and H&E staining of the tissue was done. Soft tissue section showed a parakeratinised stratified squamous epithelium and fibro vascular connective tissue with an overlying hyperplastic and acanthotic epithelium. The epithelium shows narrow, elongated rete ridges with only a

thin layer of epithelium overlying the connective tissue papillae and the underlying connective tissue comprised dense, irregularly arranged collagen fiber bundles lined by spindle shaped fibroblasts. A moderate chronic inflammatory cell infiltrate is present, comprising predominantly of lymphocytes, macrophages and plasma cells (Figures 2 and 3). Correlating clinical features and histopathology a diagnosis of stomatitis areata migrans of the gingiva was given.



**Figure 2: Histopathology:** The section shows a parakeratinised stratified squamous epithelium with narrow, elongated rete ridges; the epithelium was hyperplastic and displayed acanthosis.



**Figure 3: Histopathology (100x magnification):** The connective tissue shows dense, irregularly arranged collagen fiber bundles lined by spindle shaped fibroblasts and a mixed cell infiltrate is present, comprising predominantly of lymphocytes, macrophages and plasma cells.

## DISCUSSION

Several cases are reported under the term geographic tongue or erythema circinata in which patients have reddish lesions usually with well - defined borders that appear clinically like the lesions of geographic tongue but are on other sites of the oral cavity<sup>2</sup>. They may or may not occur in a given patient in association with typical tongue lesions. Apart from the tongue erythema migrans is said to occur in the buccal mucosa, gingiva, palate, lips and floor of the mouth. A close association among psoriasis, Reiter's syndrome, and SAM has been reported in literature<sup>2</sup>. SAM may represent an incomplete

form of either psoriasis or Reiter's syndrome<sup>2</sup>. Hume in 1975<sup>3</sup> described four types on the basis of clinical distribution:

(i) lesions that migrate with time and with periods of activity and remission on the dorsum, lateral borders, and tip of the tongue with possible extension to the undersurface (ii) similar to type 1 but with lesions elsewhere in the mouth (iii) tongue lesions that are not typical of type 1 and that may be accompanied by lesions elsewhere in the mouth (two subtypes: fixed forms and abortive forms); and (iv) no tongue lesions but lesions elsewhere in the mouth.

Gingival involvement with SAM was rare, with two such instances reported in literature<sup>3</sup>. The absence of the condition on the gingiva is both conspicuous and noteworthy<sup>4,6</sup>. This case is rare and does not appear to have been documented either histologically or clinically (with photographs) often in literature. Kuffer et al<sup>7</sup> described multiple lesions on the buccal mucosa, tongue, lip, and two examples on lower gingival tissues. In addition, this patient had a recurring ulcerative gingivitis. Stephen A. Rails, Gary R. Warnock in 1985<sup>8</sup> history and oral lesions consistent with stomatitis areata migrans. The stomatitis areata migrans affected essentially all oral soft tissues, including the gingival tissues which were rarely involved. The gingival involvement was documented by clinical and histologic means. In our case the clinical appearance of the lesions remained consistent with SAM of the gingiva, with no concomitant dermatological problems or systemic diseases.

## Management

Since the etiology was unknown the treatment is empirical. The patient was reassured as to the benign nature of the process. Heavy doses of vitamins have been used, but in general all types of treatment have been unsuccessful. A 10 - year study of patients with geographic tongue treated in a variety of ways concluded that treatment influenced neither the lesions nor the subjective complaints of the patients<sup>9</sup>.

## CONCLUSION

Stomatitis areata migrans of the gingiva is a rare clinical condition, which has been reported sparingly in literature. Knowledge about the occurrence of such a benign lesion in the gingiva is important as it prevents the clinician from misdiagnosing the case and instituting unnecessary treatment. The asymptomatic nature of the patient regarding the gingival lesions can help in the diagnosis of this condition and empirical treatment is preferred.

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