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A horrific but harmless case of Traumatic ulcerative granuloma with stromal eosinophilia of the tongue - Look before you leap

[1]Dr. Aritra Chatterjee, Clinical Tutor, Department of Oral and Maxillofacial Surgery, Dr. R Ahmed Dental College and Hospital, Kolkata, India

[2]Dr Mohsina Hussain, Post Graduate Trainee (PGT), Department of Oral and Maxillofacial Surgery, Dr. R Ahmed Dental College and Hospital, Kolkata, India

[3]Dr. Sandip Ghosh, Assistant Professor, Department of Oral and Maxillofacial Pathology, Dr. R Ahmed Dental College and Hospital, Kolkata, India

[4]Dr. Nayana De, Clinical Tutor, Department of Oral and Maxillofacial Surgery, Dr. R Ahmed Dental College and Hospital, Kolkata, India

[5] Prof. Dr. S.K. Majumdar, Professor and Head, Department of Oral and Maxillofacial Surgery, Dr. R Ahmed Dental College and Hospital, Kolkata, India

[6]Dr. Md. Arif Hossain, Resident Surgeon, Department of Oral and Maxillofacial Surgery, Dr. R Ahmed Dental College and Hospital, Kolkata, India

Corresponding Author: Dr. Mohsina Hussain, Post Graduate Trainee (PGT), Department of Oral and Maxillofacial Surgery, Dr. R Ahmed Dental College and Hospital, Kolkata, India

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Abstract

Traumatic ulcerative granuloma with stromal eosinophilia (TUGSE) is an extremely rare, benign ulcerative lesion of the oral mucosa. The clinical entity of the lesion mimics malignancy to a great extent, such that diagnosis is often quite difficult. We report a case of a 34-year-old female patient, who presented with an indurated ulcer which exhibited elevated rolled margins on the lateral surface of the tongue. An incisional biopsy was taken and histopathological results revealed Traumatic ulcerative granuloma with stromal eosinophilia. Wide local excision of the lesion was performed under Local anesthesia. There is no report of any recurrence for a follow up period of 2.5 years.

Keywords: Traumatic ulcerative; granuloma; eosinophils; tongue; wide local excision

Introduction

Traumatic ulcerative granuloma with stromal eosinophilia (TUGSE) is an extremely uncommon, benign, ulcerative lesion of the oral mucosa occurring most commonly on the tongue. They can also occur on other oral mucosal sites including buccal mucosa, retromolar area, floor of the mouth, vestibular mucosa, gingiva, and palatal mucosa[1-4]. An oral TUGSE lesion exhibits as a slow-healing ulcer with elevated or rolled borders, mimicking a more serious condition such as oral squamous cell carcinoma. However, it is self-limiting and tends to resolve spontaneously. The duration of healing ranges

from 1 week to 1 year.[1,2]Oral TUGSE is generally considered to be a reactive lesion[4].

Case Report

A 34-year-old female presented with a chief complaint of pain and ulceration on the right side of her tongue since 2 months. Patient did not give any history of local trauma by adjacent teeth. No deleterious oral habit was present. On examination, an ulceroproliferative lesion, with a whitish surrounding halo of size approximately 3cm x 2.5 cm in greatest dimension, was present on the postero-lateral aspect of tongue, proximal to the mandibular first and second molars of the same side (Figure 1). The margins of the lesion were everted. On palpation the ulcer was smooth, tender and firm in consistency, with well-defined margins and induration. There was no fixation to the deeper structures or any regional lymphadenopathy. Cuspal grinding of the lower molars adjacent to the lesion was performed to rule out the possibility of further trauma and evaluate the regression of the lesion (if any) after 2 weeks. The patient was also advised to undergo contrast enhanced computed tomography (CECT) of the face and neck to exclude spread of the lesion to the regional lymph nodes. CECT revealed a contrast enhancing non homogenous growth on the right side of her tongue and no cervical lymph node enlargement. There was no regression of the lesion after 2 weeks, so an incisional biopsy was carried out under local anesthesia and sent for histopathological examination. Microscopic examination showed superficial hyperplastic epithelium displaying hyperkeratosis with a central area of ulceration. The area of ulceration was infiltrated with dense mixed inflammatory cells chiefly composed of eosinophils and macrophages (Figure 2). These cells extended deep into the musculature of the tongue with evidence of infiltrating the muscle fibers. The infiltrated tissue was well vascularized. No atypical cells were seen. Based on the clinico-pathologic and radiographic features, a diagnosis of Traumatic Ulcerative Granuloma with Stromal Eosinophilia (TUGSE) was made.

In the second sitting Wide Local Excision of the lesion was performed (using monopolar cautery) under Local anesthesia and sent for histopathological examination again (Figure 3 and Figure 4). The patient was prescribed routine antibiotic and anti-inflammatory medications, hence making the post-operative healing uneventful. The same histopathological features were noted for the second time, which reconfirmed our diagnosis. Complete healing was noticed after 1 month. No treatment was required other than regular observation and routine check-ups. The patient was kept under vigilant follow up every 7 days for the next 3 months, followed by follow up at 6 months, 9 months, 1 year, 1.5years, 2 years and 2.5 years. The surgical site healing was satisfactory and no signs of any recurrence were observed (Figure 5).

Discussion

TUGSE was originally described clinically in 1881 by Riga and histologically in 1890 by Fede. The term TUGSE was first coined by Elzay in 1983. This lesion has been known by various names, Riga-Fede disease in infants and neonates, sublingual granuloma, traumatic granuloma, eosinophilic granuloma, eosinophilic ulcer, and ulcerative eosinophilic granuloma[5, 6]. In 1970, this lesion was proposed as a distinct entity by Shapiro and Juhlin[7].

The aetiology of TUGSE still remains to be unraveled but the main theory is matched with trauma. Viral or toxic agents, accidental bites have also been included as a likely cause of its development.

TUGSE exhibits a slight female predominance in most of the cases. It occurs mainly on the dorsal or lateral surface of the tongue (60% of lesions), which seems reasonable since movement makes it more vulnerable to

trauma[7].Other areas such as lip, palate, gingiva, vestibular mucosa and floor of the mouth may also be involved.

A wide age range of patients are affected, seen from childhood to old age with a peak incidence between the sixth and seventh decades of life[8].

Clinically, most of them appear as a rapidly developing solitary ulcer with elevated or indurated margins[9].

Indurated lesions represent an earlier phase in the development of the typical ulcer. However, the microscopic studies and immunohistochemical features indicate a benign process. Lymphadenopathy can be observed in extremely rare cases [10].

Conclusion

We conclude that, though TUGSE is an extremely rare oral lesion, its possibility cannot be totally ruled out while diagnosing lesions mimicking oral malignant ulcers. Oral TUGSE is a benign self-limiting lesion and usually does not require aggressive surgical intervention. Wide local excision with regular follow up is usually sufficient. Hence, in patients who do not give any history of deleterious oral habits, ulcerated lesions occurring on the dorsal surface of tongue, in the 4th to 6th decades of life, the possibility of TUGSE should be given a consideration before venturing on to a more radical mode of treatment

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Figures:

Figure 1: Pre Operative view of the lesion

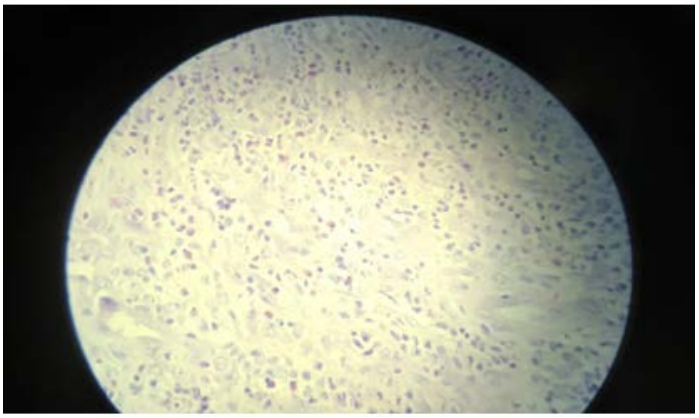

Figure 2: Histopathology of the specimen

Figure 3: Wide Local Excision of the lesion done

Figure 4: Excised Specimen

Figure 5: Post-operative healing