

Verruciform xanthoma of the tongue

ABSTRACT

Verruciform xanthoma is a benign, soft tissue lesion occurring on the orogenital mucosa. Presentation of oral lesions can be pink, yellow, or gray raised plaque or papule with granular, papillary, or verrucous in nature. There are many theories proposed for the etiopathogenesis of verruciform xanthoma. Clinical observations may be misleading as the lesion resembles malignant and premalignant lesions. Histopathological confirmation is essential for diagnosis and avoiding radical surgery. Once excised, the lesion does not recur. Here, we present a case report of verruciform xanthoma of the tongue in a 50-year-old female patient.

Keywords: Foam cells, tongue, verruciform xanthoma

INTRODUCTION

Oral verruciform xanthoma is a rare, benign, soft tissue growth.^[1] The lesions are usually slow growing, painless, pedunculated, or sessile.^[2] Shafer in 1971 presented 15 cases of xanthoma and was the first to coin the term verruciform xanthoma.^[3,4] Verruciform xanthoma can occur as a result of irritation to the oral mucosa or unknown immune reaction. However, etiology and pathogenesis of this lesion are not yet clearly described in the available literature.^[2,5] Wide excision of the lesion usually gives good result. Recurrence or conversion into malignancy after excision is very rare.^[2,6] Clinical presentation of oral verruciform xanthoma is very similar to that of leukoplakia, verruca vulgaris, and some neoplastic lesions, so it is very much essential to do a biopsy for the confirmation of diagnosis.^[2,7,8]

CASE REPORT

A 50-year-old female patient reported with a chief complaint of painless soft tissue growth on the tip of tongue for 6 months. She also gave history of occasional bleeding from the growth. On clinical examination, well-circumscribed, sessile, papillomatous, reddish growth was seen on tip of the tongue [Figures 1 and 2]. There was no history of tobacco-related habits. There was no confirmatory history


of trauma. Medical history was unremarkable. Reddish appearance of the growth was clinically suggestive of vascular lesion. Hence, excisional biopsy was performed under general anesthesia [Figure 3]. On histopathological examination [Figures 4 and 5], the epithelium is parakeratotic stratified squamous with parakeratin plugging in between the clefts of projections. There are elongated pointed rete ridges mostly at the same level. At places, there is entrapment of connective tissue in between the epithelium. Some areas of the epithelium show basilar hyperplasia; basement membrane is intact. Characteristically noted in the papillae of the lamina propria are foamy macrophages which are xanthoma cells. Foamy macrophages are associated with small capillary-sized vessels. In one deeper area of the connective tissue supporting vascular stroma, intense and diffuse infiltration of lymphocytes is seen. Overall features are suggestive of oral verruciform xanthoma.

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Figure 1: Patient with verruciform xanthoma of tongue

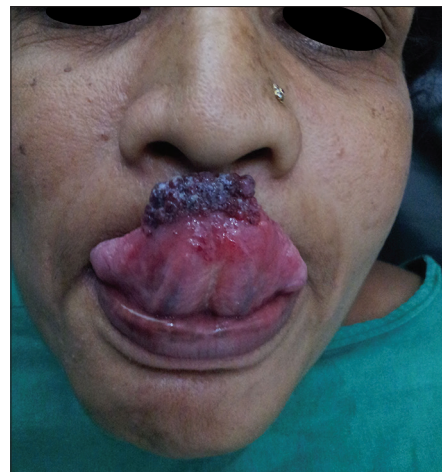


Figure 2: Minimal extension of lesion on ventral surface of the tongue



Figure 3: Excision of the lesion

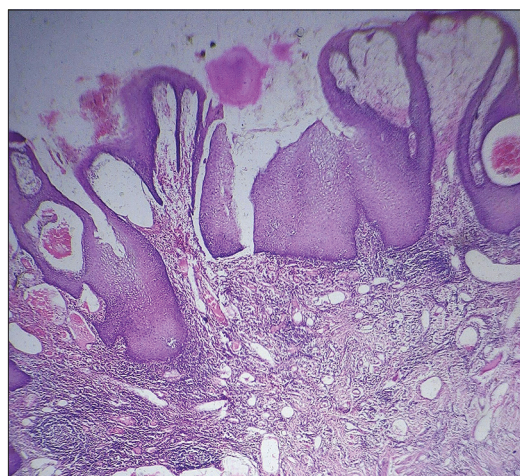


Figure 4: Parakeratinized stratified squamous epithelium with juxtaepithelial areas of xanthoma cells (H and E, $\times 100$)

DISCUSSION

Verruciform xanthoma is often found in the age group of 40–60 years. Site of occurrence is oral and genital mucosa where they are usually found as an isolated lesion.^[2] Intraoral sites for occurrence of verruciform xanthoma are masticatory mucosa, gingival margin, hard palate, tongue, buccal mucosa, floor of mouth, alveolar mucosa, soft palate, and junction between hard and soft palate.^[7,9]

Diagnostic finding of verruciform xanthoma is the presence of foam cells in submucosal spaces.^[11,4] Depending on light microscopic views, Nowparast *et al.* described verruciform xanthoma into three different types.

1. A warty or verrucous appearance
2. A papillary or cauliflower architecture
3. A slightly raised or flat lesion.^[9,10]

Recently, many studies have been conducted to understand the mechanism of formation of foam cells as well as their migration to subepithelial region. Immunohistochemical studies suggest that foam cells originate from macrophages because of their strong immunoreactivity to CD-68 antibody.^[1] Zegarelli *et al.* proposed that local trauma causes epithelial entrapment which initiates inflammatory reaction. This leads to epithelial breakdown and release of lipid substance which is engulfed by macrophages.^[9,11] This theory can be accepted as oral verruciform xanthoma is most often found on the masticatory mucosa which is subjected to trauma and subsequent inflammatory reaction. Ide *et al.* proposed that some of the oral agents such as periodontal pathogens, mechanical stimuli, tobacco, alcohol, drugs, sensitizing or allergic substances of food stuffs, and dental materials are the reasons for initiation of oral verruciform xanthoma. Malignant transformation of verruciform xanthoma is not yet reported in the literature.^[9,12]

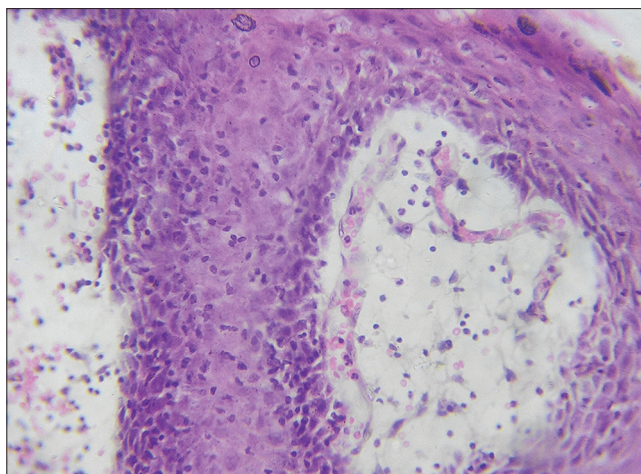


Figure 5: Xanthoma cells along with vascular channels and inflammatory cells in papillary portion of lamina propria (H and E, ×400)

CONCLUSION

Very few cases of oral verruciform xanthoma are reported in the literature. Oral verruciform xanthoma is a benign lesion which can be treated by conservative wide excision. Usually, it does not recur after excision. Proper understanding of clinical and histopathological findings is essential for diagnosis and differentiation from similar oral lesions. This will help in avoiding radical surgical procedure.

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published

and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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