

## An Unusual Lesion on The Palate: A Rare Case Report

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### Abstract

Minor salivary glands are present in most parts of the mouth. They are the important components whose secretion directly bathe the tissues of the oral cavity. Smoking is the most commonly seen deleterious habit among men which directly affects minor salivary glands in the palate. Smoking also causes stomatitis nicotina in the oral cavity.

**Keywords:** Minor Salivary Gland, Sialadenitis, Stomatitis Nicotina, Palate, Saliva

## Introduction

The salivary glands are exocrine glands that secrete saliva into the oral cavity. There are two types of salivary glands: Major salivary glands and minor salivary glands. There are about 600 to 1000 minor salivary glands in the lips, palate, buccal mucosa, and tongue [1]. They consist of a group of secretory end pieces made up of mucous cells and serous or seromucous demilune cells. Each gland is usually present in the submucosa or between the muscle fibres.

Sialadenitis is an inflammation of salivary glands most commonly affecting the submandibular and parotid gland. It is rarely seen in minor salivary glands [2]. This article is about the case report on ulcerative sialadenitis of the minor salivary glands of the palate.

## Case Report

A 54-year-old male patient came to the department of Oral Medicine and Radiology with the chief complaint of bleeding from the palate in the last 5 months, which increased for 1 month. Bleeding started spontaneously during eating and drinking, continued for about 3 mins. Bleeding was profuse with no other associated symptoms. The patient approached a nearby doctor for the same and was prescribed some medication but the complaint was not resolved. Details of the medication were not known. The patient was diabetic and hypertensive for 23 years. He was under insulin therapy for diabetes and under medication for hypertension. The patient was a beedi smoker in the past 25 years (13-14 beedis per day). As a part of the routine protocol, informed consent has been obtained. Extra orally no abnormalities detected. Intraoral examination revealed solitary well-defined papule, measuring approximately 0.5x0.5 cm in diameter, ovoid in shape, located on the left side of the mid palatine raphe, along the line running from the right first molar to the left first molar. Mucosa over the lesion was ulcerated. Edge of the ulcer was slightly raised. The surface of the ulcer was erythematous. Mucosa adjacent to the lesion appeared pale with multiple pigmentation and petechiae [Figure 1].



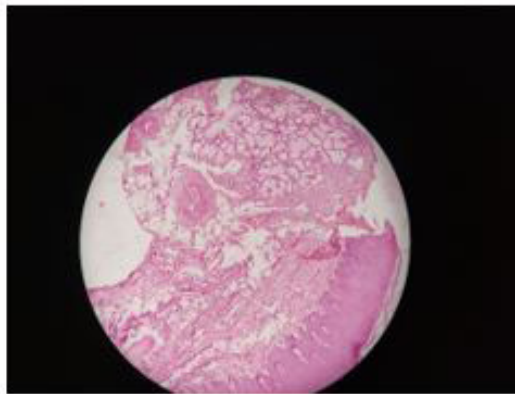
**Figure 1:** Solitary papule on the left side of the mid palatine raphe with ulceration of the overlying mucosa.

On palpation, the lesion was nontender, slightly compressible, no discharge and bleeding were noted on palpation. The case was provisionally diagnosed as ulcerative sialadenitis of the palatal minor salivary gland. Minor salivary gland adenoma and adenomatoid hyperplasia were considered as differential diagnosis.

The maxillary occlusal radiograph showed no bony changes [Figure 2]. Excisional biopsy of the lesion was carried out and histopathological examination revealed ulcerated hyperplastic para keratinized stratified squamous epithelium overlying inflamed connective tissue stroma. The connective tissue stroma exhibits extravasation of mucin, minor salivary gland acini, adipocytes, prominent blood vessels with moderate chronic inflammatory cell infiltrate [Figure 3]. Based on clinical and histopathologic features the lesion is finally diagnosed as ulcerative sialadenitis of the minor salivary gland of the palate. The patient has been following up for two months and no recurrence has been noted to date [Figure 4].



**Figure 2:** Maxillary occlusal radiograph showed no bony changes.



**Figure 3:** Histopathological image showing ulcerated hyperplastic para keratinized stratified squamous epithelium overlying inflamed connective tissue stroma.



**Figure 4:** Healing of the surgical site after two weeks.

## Discussion

Minor salivary glands have a very important role in the physiology as well as pathology of the oral cavity. It protects and bathes the oral tissue through a continuous flow of saliva. Each gland opens directly into the oral cavity and regulates the local environment [1]. Smoking tobacco generally affects general as well as oral health [3]. Nicotine stomatitis is also called stomatitis nicotina of the palate. It was described by Thoma in 1941. Saunder explained that nicotine stomatitis of the palate was produced by the heat from the tobacco smoke to the palate.[4] Nicotine stomatitis is seen on the hard and soft palate as a white papular lesion with surrounding mucosa may be normal or blanched which is caused by the blockage of the palatal mucosal gland [5].

Smoker's palate is divided into three grades by Greenburg et al.[6].

1. Grade I: Mild - Consisting of red, dot-like appearance on the blanched area.
2. Grade II: Modern - Characterized by well-defined elevation with central umbilication.
3. Grade III: Severe - Marked by papules of 5mm or more with umbilications of 2-3mm.

In our case, ulcerated sialadenitis was noted with Grade II smoker's palate. Sialadenitis is inflammation of the salivary gland. It is most commonly seen in the parotid gland. It is caused by hyposalivation and duct obstruction [7]. Inflammation of the minor salivary gland opening due to smoking and traumatic irritation will result in ulceration. This ulcerated mucosa will have a higher propensity to bleed on microtrauma while consumption of food [2]. To date, only one similar case has been reported in the literature. Surgical excision is a treatment of choice. Complete excision has been done in our case.

## Conclusion

A variety of disease processes can occur within salivary gland tissue which is associated with smoking. It is important to be familiar with the clinical signs and symptoms to treat the case in an appropriate manner. Counselling the patient about the offending deleterious habit is required to avoid the complications associated with the minor salivary glands.

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