A Rare Presentation of an Unusual Foreign Body: A Case Report

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Foreign bodies within the submandibular gland are found to be a rare phenomenon and when it occurs is most frequently found within the submandibular duct. Here, we present a case of a 33-year-old male who presented with submandibular sialadenitis caused by the foreign body penetrating the submandibular gland.

Keywords: Foreign body, Obstructive sialoadenitis, Submandibular gland

INTRODUCTION

Obstructive salivary gland disease due to sialoliths is one of the most common disorders affecting the submandibular gland.1 Sialoadenitis caused due to the foreign bodies is relatively rare as the retrograde passage of foreign bodies through the Warthin’s duct is unusual due to the continuous flow of saliva and small caliber of the duct and when occurs, are most commonly found within the Warthin’s duct.2,3 We present a case of a 33-year-old male who presented with left submandibular sialadenitis caused by an intraglandular foreign body.

CASE REPORT

A 33-year-old male presented with a history of foreign body sensation in the oral cavity of 3 months duration following ingestion of a blade of grass. He also complained of recurrent swelling in the left submandibular region 3 months following the incident. The swelling was associated with pain which was aggravated on taking food. On examination, the left submandibular gland was found to be enlarged. It was tender on palpation and mobile. An ultrasound of the submandibular gland showed a linear hyperechoic structure deep to the left submandibular gland surrounded by a minimal hypoechoic area suggestive of a foreign body (Figure 1). The patient underwent excision of the left submandibular gland which on gross examination showed 1 cm blade of grass within the substance of the gland and pus within the submandibular duct (Figure 2). Histopathological examination revealed dilated ducts with extensive periductal neutrophilic infiltration and areas of necrosis and hemorrhage along with lymphoid aggregates in acinar lobules suggestive of acute on chronic sialoadenitis.

DISCUSSION

Salivary gland dysfunction may have various causes of which obstructive salivary disease is one of the most common causes.1 The causes for obstruction are most frequently endogenous due to sialoliths and strictures. Exogenous causes, like foreign bodies, are found to be relatively less common as retrograde migration through the salivary duct is prevented due to constant flow of saliva and a narrow caliber of Warthin’s duct.1,3

Foreign bodies in the submandibular gland although rare are most commonly found within the Warthin’s duct. A review of literature carried out by Su et al. reported 22 cases of submandibular obstruction caused by foreign bodies between 1967 and 2011. Of the 22 reported cases, 14 were within the main duct, 1 was intraglandular part of Warthin’s duct, 1 case penetrating the gland and the rest were not clearly mentioned.2 These foreign bodies are predominantly found to be of vegetative origin like grass...
blades and vegetal nidus although non-vegetative material like toothbrush bristles have also been reported.²

Various investigations such as ultrasonography, sialendoscopy, sialography, computed tomography scan, and magnetic resonance imaging are found to be useful for the foreign body within the submandibular duct. Sialoendoscopy which has the advantage of direct imaging of the intraductal system making diagnosis easier and lack of radiation.³ However, in our patient as the foreign body was found penetrating the gland, the patient would not have benefitted from the same.

The treatment of choice includes surgical removal via intraoral approach for foreign bodies within the submandibular duct or excision of the submandibular gland through external approach for intraglandular foreign bodies and associated sialadenitis. Foreign body within the submandibular duct may be removed via sialoendoscopy.²

**CONCLUSION**

Although foreign bodies are rarely found in the submandibular gland, when they do occur is usually seen within the Submandibular duct. The present case, however, is unusual as the foreign body was found to be penetrating the substance of the submandibular gland.

**REFERENCES**