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Case Report

An Unusual Clinical Presentation of Nasopalatine Duct Cyst- A Case Report

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ABSTRACT

Nasopalatine duct cyst also known as incisive canal cyst usually arises from remnants of nasopalatine duct, in midline of maxilla near the incisive canal, having male predilection. We report a case of nasopalatine duct cyst in a 24 year old male patient in lateral palatal region with dark brown mucinous aspiration, posing a diagnostic dilemma for us.

Keywords: lateral palate, mucinous, nasopalatine duct cyst.

INTRODUCTION

First described by Meyer in 1914, nasopalatine duct cyst is one of the most common non-odontogenic cysts occurring in 4th to 6th decade of life. [1] The cyst seen more commonly in male than female; usually develops due to infection, trauma, minor salivary mucous retention or may develop from nasopalatine duct remnants. [2] Most common presentation being swelling in anterior maxilla though may be asymptomatic.

We report a case in a 24 year old male patient with unusual clinical presentation in lateral palate.

CASE REPORT

A 24 year old male patient presented to our outpatient department with chief complaint of swelling in upper right front region of jaw past 1 year. It was not accompanied by pain or any discharge. There was no prior history of trauma or any infection of odontogenic origin. On examination, extraorally swelling was seen in relation to right maxilla extending from right ala of nose to the right cheek approximately 2-3 cm in size. The lesion was hard on palpation.(Fig 1)

Intraorally the swelling was extending from midpalatine raphe uptil the right lateral maxilla. Lesion was well defined, overlying mucosa was intact. Swelling was soft, fluctuant, non- tender on palpation. On aspiration dark brown aspirate was found. Clinically no palpable lymph nodes. (Fig 2)

Computed tomography showed well defined cystic lesion with no calcification approximately 6 × 4 cm in size in the palate involving the right maxillary sinus. (Fig 3)

Incisional biopsy was done considering the size of the lesion before planning for enucleation. Reports revealed it to be a nasopalatine duct cyst.

The patient was planned for cyst enucleation under GA where the entire cyst lining was removed in toto following which extraction of central incisor until the last molar was done. Post-operative histopathological examination (HPE) revealed cyst wall lined by respiratory

epithelium and stratified squamous epithelium with fibrosis and focal mild infiltration of lymphocytes and plasma cells. It was suggestive of nasopalatine duct cyst.(Fig 4, Fig 5).

The rate of recurrence in literature is low ranging 0-2%, [3] yet the patient was followed closely for one year with no local recurrence. (Fig 6).

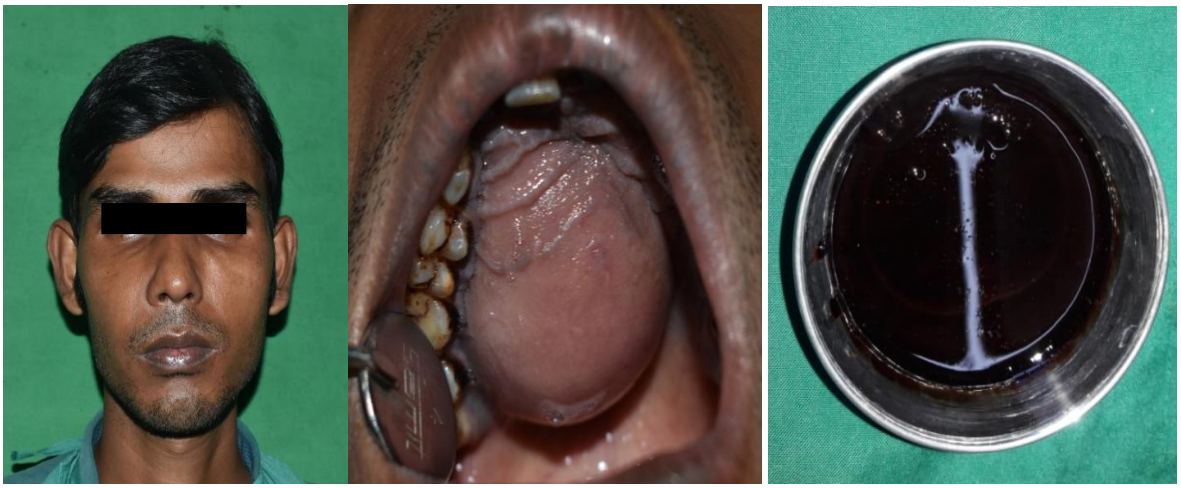

Figure 1(a)&(b)- Extraoral picture and intraoral picture of the lesion showing the extent of the lesion
Figure 2- Brown mucinous aspirate

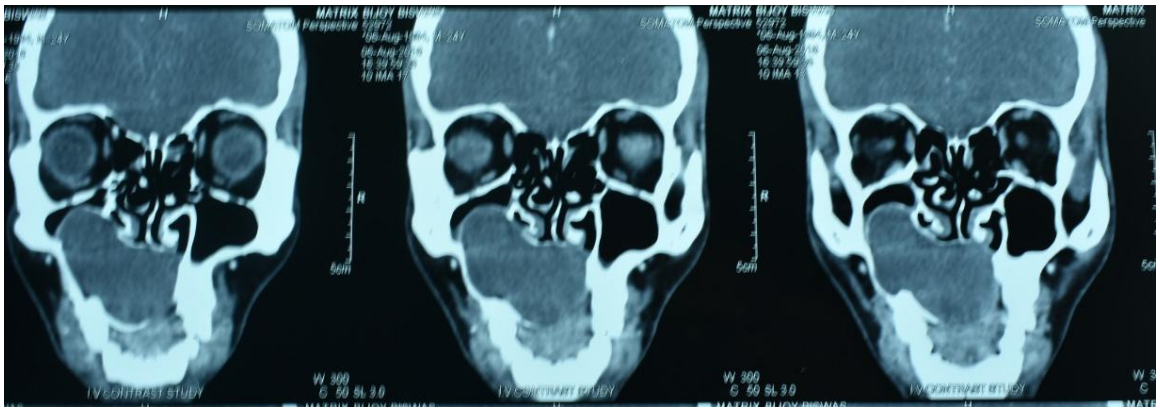

Figure 3- CT scan coronal section showing well defined cystic lesion on right side involving the sinus also.

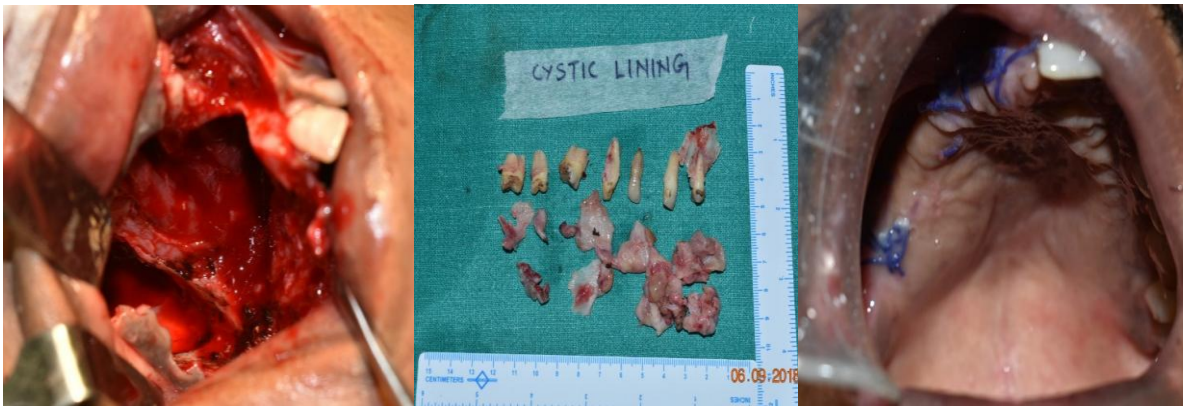

Figure 4- Intraop picture after cyst enucleation&
Figure 5- Cystic lining and extracted teeth.
Figure 6- First post-operative pic after 10 days.

DISCUSSION

The mucus glands present within the lining may give rise to the cyst presentation [4] and in our case also we found mucinous dark brown aspirate though such aspirate is

not a very common finding in nasopalatine duct cyst.

The lining of the cyst varies depending upon its proximity to the oral and nasal apertures. In our case HPE report revealed lesion lined by respiratory epithelium.

The lesion is usually seen to be associated with premaxilla [5] but in our case it was involving the lateral maxilla also with a high superior extent. The rate of progression of the lesion to malignancy is low.

Most of the time, the lesions are less than 20mm in diameter [6] and some may be associated with displacement of roots but seldom are associated with teeth resorption [2] unlike our case where root resorption was seen and so the teeth were extracted intraoperatively. There are very less cases in literature with large size and such rare variety usually seen in African patients, which is similar to our case.

In our case CT scan images proved the lesion to be aggressive with extension in right maxillary sinus region.

Surgical enucleation is the treatment of choice. But for larger lesions, marsupialization may be opted. [7] In our case both the treatment aspects were explained to the patient but patient opted for enucleation. Though recurrence is rare in nasopalatine duct cyst yet, patient was recalled for follow-up with necessary radiographs.

CONCLUSION

Our case of 24 year old male patient presenting with nasopalatine duct cyst is rare of its kind. Owing to its large size (considering Indian population), aggressive nature, mucinous brown aspirate and moreover its widespread location making it a unique presentation.

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