

CASE REPORT

LOBULOMAXILLARY CYST OF THE HARD PALATE: A RARE CASE REPORT IN A YOUNG FEMALE

*Hira Bushra*¹

¹Associate Professor, Radiology Department, Sheikh Zaid Medical College/Hospital, Rahim Yar Khan

ABSTRACT:

Cysts affecting the hard palate are infrequent and are often detected incidentally. Non-odontogenic cysts that may occur in this region include globulomaxillary, nasolabial, nasopalatine, and median palatal cysts. This case report discusses a 22-year-old female who presented with a painless swelling on the left side of the hard palate, persisting for two years. Radiological assessment, including computed tomography (CT) and magnetic resonance imaging (MRI), led to the identification of a globulomaxillary cyst, which was subsequently confirmed through histopathological analysis.

Keywords: Non-odontogenic cyst, palatal cyst, globulomaxillary cyst

INTRODUCTION:

Palatal cysts are uncommon, non-odontogenic developmental cysts that arise within the hard palate¹. They tend to be more frequently observed in males than females, with an estimated male-to-female ratio of 3:1. These cysts are typically asymptomatic, manifesting as painless swellings. While they generally appear in middle-aged adults, some cases are congenital². The globulomaxillary cyst, in particular, forms at the junction of the globular segment of the medial nasal process and the maxillary process, an area known as the globulomaxillary fissure. These cysts are most commonly found between the maxillary lateral incisor and canine³. Due to their rarity, only a few cases have been reported in the literature.

CASE STUDY:

A 22-year-old female presented with a painless swelling on the left side of the hard palate (Figure 1).

Initially asymptomatic, the swelling later developed mild roughness and localized tenderness. There was no history of trauma or associated symptoms. The

overlying mucosa appeared intact, with no signs of ulceration. Radiographic examination revealed no divergence of the roots of adjacent teeth.



A plain CT scan of the face and neck demonstrated a well-defined cystic lesion occupying nearly the entire left side of the hard palate, extending anteriorly to the pterygoid plates posteriorly (Figure 2).



Correspondence: Hira Bushra

Sheikh Zaid Medical College/Hospital, Rahim Yar Khan

Email: dr.hirusman@yahoo.com

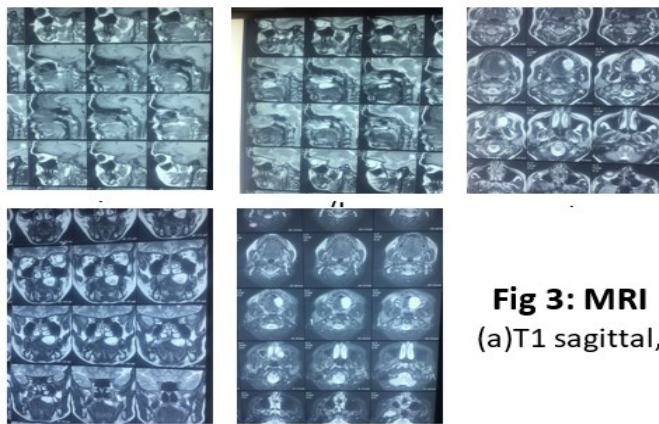


Fig 3: MRI
(a)T1 sagittal,

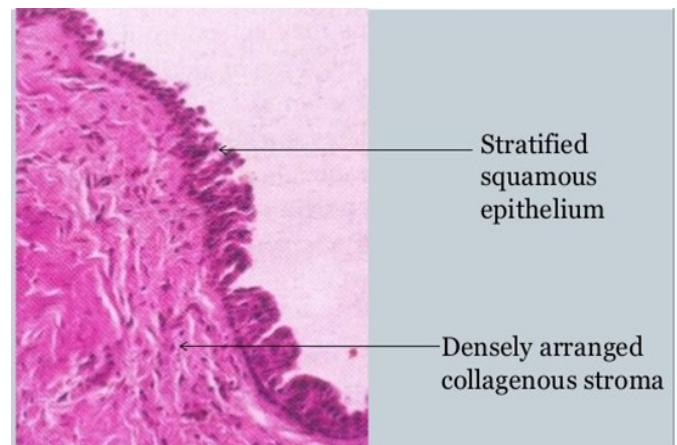
The lesion measured approximately 3 x 2.5 cm and was associated with thinning of the surrounding bone. Magnetic resonance imaging (MRI) of the face and neck revealed a fluid-density lesion with abnormal signal intensity, appearing hypointense on T1-weighted imaging (T1WI) and hyperintense on T2-weighted imaging (T2WI) (Figure 3).

No other abnormalities were detected. Histopathological examination confirmed the diagnosis of a globulomaxillary cyst (Figure 4).

DISCUSSION:

Cysts of the hard palate are broadly classified into two categories: odontogenic and non-odontogenic cysts. Non-odontogenic, or fissural, cysts include globulomaxillary, nasopalatine, median palatal, and nasolabial cysts, which are distinguished by their anatomical locations. Globulomaxillary cysts arise at the junction of the maxilla and premaxilla. Radiographically, they typically present as pear-shaped or tear-shaped radiolucent lesions located between the roots of the lateral incisor and canine teeth⁴.

CT imaging typically reveals a hypodense lesion without contrast enhancement on post-contrast scans, accompanied by bone expansion but without cortical disruption. On MRI, these cysts appear as low to intermediate signal intensity lesions on T1WI and hyperintense on T2WI, with no enhancement following gadolinium administration⁵. Histopatho-



logical examination typically shows a cystic cavity lined by thin stratified squamous epithelium, occasionally interspersed with pseudostratified columnar epithelium. The cyst wall is composed of dense collagenous fibrous tissue⁴. Differential diagnoses include odontogenic keratocysts and adenomatoid odontogenic tumors

CONCLUSION:

This case highlights the clinical significance of globulomaxillary cysts, given their rarity and often asymptomatic nature. Non-odontogenic cysts, such as the one described, frequently remain undiagnosed for extended periods due to their lack of symptoms. Advanced imaging modalities, including CT and MRI, play a crucial role in the accurate diagnosis and characterization of these lesions. Early recognition and appropriate management are essential to prevent potential complications.

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