Nasopalatine Cyst: A Rare Entity
Joshi Udupi Krishna, Patil Satish Kumar and Siddiqua Aaisha

Abstract:
Cysts are the common pathologies found in the oral cavity. Nasopalatine or nasoalveolar cyst is a rare intraosssseous developmental cyst occurring in the midline of maxillary anterior region. Only few cases have been reported in the literature. This paper reports the management of a case of Nasopalatine Cyst in a 54 yr old male patient.

Keywords: Nasopalatine Cyst, Median palatine cyst, Nasoalveolar cyst, etc.

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Introduction:
Cysts are not very uncommon pathologies found in the oral cavity. Being defined to have collection of fluid within a cavity lined by epithelium, a variety of cysts are described. Some are developmental and some are congenital in origin. Some varieties of cysts are known as their own entity because of their position. The Nasopalatine cyst was first described by Meyer in 1914(1, 2). Nasopalatine duct cyst also termed as incisive canal cyst arises from embryologic remnants of Nasopalatine duct. Most of these cysts develop in the midline of anterior maxilla near the incisive foramen(3). The majority of cases occur between 4th and 6th decades of life. Slightly more common in males than women, the ratio being 3:1(3).
Almost all the cysts in the palate are approached from palatal side but this cyst being observed in the anterior palate and the erosion of the labial cortex makes the labial approach also a feasible method(4). This paper reports the Management of a case of Nasopalatine Cyst in a 54 yr old male patient by labial approach.

Case Report:
A 54 year old patient reported to the Department of Oral & Maxillofacial Surgery, S. Nijalingappa Institute of Dental Sciences & Research, Gulbarga, India with complaints of salty discharge from the anterior palatal region for last 6 to 8 years. Careful history revealed extraction of upper central incisors 10-12 years back due to mobility of anterior teeth. The upper left lateral incisor was also showed grade I mobility.

The normal anatomy was not distorted. In relation to upper right permanent lateral incisor a pinpoint sinus opening was noticed. On palpation a watery discharge was expressed from the sinus (Fig.1).


Aspiration confirmed the presence of a cystic pathology with a straw coloured fluid. Radiographs revealed a circular to oval radiolucency measuring 2 by 2.5 cm which was well defined with sclerotic margin suggestive of cystic pathology (Fig.2).

This case was operated under local anesthesia for enucleation with primary closure. The labial approach was used to enucleate rather than the palatal approach which is usually used.

The specimen was sent for histopathological examination (Figure.3).
The histopathologic examination of the cystic lining revealed fibrous wall lined by thin stratified squamous epithelium and partly by pseudo stratified columnar epithelium. A few nerve bundles and blood vessels were seen in cyst. These histological features, in conjunction with the site of lesion, suggested nasopalatine duct cyst, which is regarded as a rare entity (1, 2, 6).

**Discussion:**
Cysts in the midline of the palate & nasoalveolar or nasopalatine cysts are very uncommon(4-9). The cysts in this region are usually an extension of cysts from adjacent regions, which involve or cross the midline. The cysts which arise from the midline and expand from there include median palatal cyst, nasopalatine or nasoalveolar cyst and nasopalatal duct cyst(10).

Median alveolar or midline anterior cyst which is usually found in incisive foramen region is a controversial fissural cyst(2). The fact that no epithelial remnant exist due to the fusion of embryonic processes rules out the possibility of such a cystic origin(11, 12).

However few cases of median palatine cysts have been reported which may accidentally be found to be present on routine radiographic examination. Approximately about 20-30 cases have been reported in last 40 years(6). Most of them are asymptomatic, but when symptomatic they present with a swelling on the palate either in midline or adjacent to it, however lying posterior to the incisive papilla. One feature common to this cyst is presence of vital teeth adjacent to the lesion and residual or periapical cyst(4). However these can be confused with the primordial cyst arising from anterior supernumerary teeth i.e. Mesiodens(13-15).

In this case the cyst presented like a residual cyst, as the history of the extraction of the teeth due to the mobility was present. However the patient had also lost other teeth due to same reason, it was ruled out. Since the cyst was present in the midline and in the anterior part of palate, giving a differential diagnosis of a Nasopalatine cyst.

The cysts in palate are usually approached from the palatal side, but in this case it was convenient to approach from labial side, probably because of the absence of anterior teeth. The possible cortical erosion on the labial side can also be attributed for the easy labial approach(8).

The histopathologic examination of the cystic lining revealed fibrous wall lined by thin stratified squamous epithelium and partly by pseudo stratified columnar epithelium. A few nerve bundles and blood vessels were seen in cyst. These histological features, in conjunction with the site of lesion, suggested nasopalatine duct cyst, which is regarded as a rare entity (1, 2, 6).

**Conclusion:**
The Nasopalatine duct cyst is a developmental cyst derived from proliferation of embryonic epithelial remnants of the nasopalatine duct. This case is of particular clinical interest as Nasopalatine cysts are rare and it is important that clinician should be aware of the features of this cyst as nearly 40% of the cases are totally asymptomatic and found only during routine clinical examination. Due to extent of the lesion, surgical enucleation was the choice of treatment. Our case demonstrated typical clinical, radiographical and histopathological features of Nasopalatine duct cyst.

**Authors Affiliations:**
1. Udupi Krishna Joshi, Professor & H.O.D. 2. Satish Kumar Patil  Professor, 3. Aaisha Siddiqua Associate Professor, Department of Oral & Maxillofacial Surgery, S. Nijalingappa Institute of Dental Sciences & Research, Gulbarga, India.

**References:**

Address for correspondence
Prof. Dr. Udupi Krishna Joshi, MDS, Professor & H.O.D,
Department of Oral & Maxillofacial Surgery,
S. Nijalingappa Institute of Dental Sciences
Gulbarga, India.
Phone No: + 91.9448830768.
Email: dr_udupijoshi@yahoo.com