Non Odontogenic cysts of the jaws

Nasopalatine duct cyst

The nasopalatine duct cyst **(NPDC)** occurs in the median of the palate, it often appears between the roots of the maxillary central incisors. It is usually asymptomatic, but may sometimes produce an elevation in the anterior portion of the palate. It was first described by Meyer in 1914.



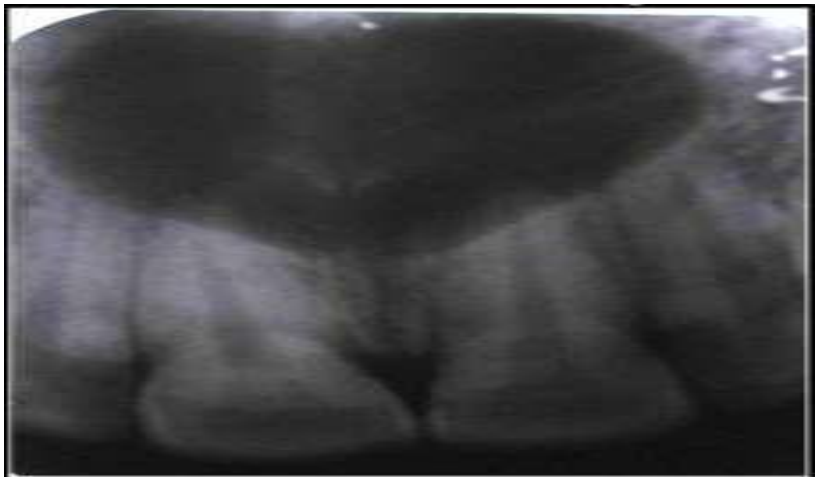
Signs and Symptoms

Nasopalatine duct cysts usually present as asymptomatic palatal swellings, but they may rarely be accompanied by pain ,pressure , swelling and purulent discharge.

Causes NPDC : arises from embryonic remnants of the nasopalatine duct and derived from the island of epithelium remaining after closure of the embryonic nasopalatine duct. Most of these cysts develop in the midline of the **anterior maxilla near the incisive foramen.**

Radiographically

The nasopalatine duct cyst present as a well-circumscribed **oval or heart-shaped radiolucency** located in the midline of the anterior maxilla between the roots of the central incisors.



Treatment:

Treatment of the nasopalatine duct cyst is by surgical enucleation , using a palatal approach. Recurrence of this cyst is rare.

Globulomaxillary Cyst

The globulomaxillary cyst is a cyst that appears between a maxillary **lateral incisor and the adjacent canine**, and causes the roots of adjacent teeth to diverge. Previously described as fissural cyst that arise from epithelium entrapped during fusion of the globular portion of the medial nasal process with the maxillary process, Current theory holds that most (if not all) cysts that develop in the globulomaxillary area are actually of odontogenic origin.

Clinical feature

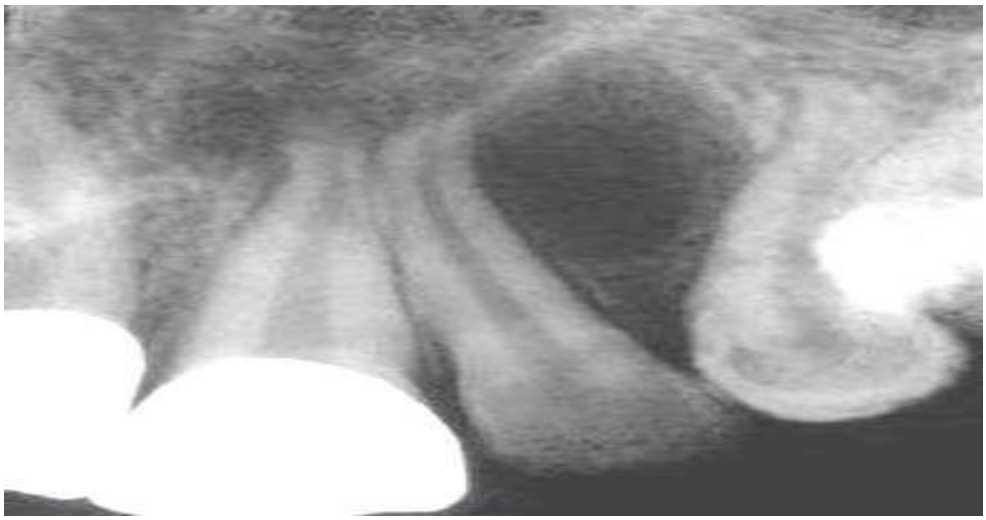
1-site between lateral incisor and canine, teeth are vital.

2- Usually asymptomatic,some cause pain and discomfort only when it is infected.



Radiographically

On radiograph it will appear as **inverted pear** shaped radiolucency between the maxillary lateral incisor and canine teeth with divergence of the roots **.**



Treatment : Surgical enucleation**.**

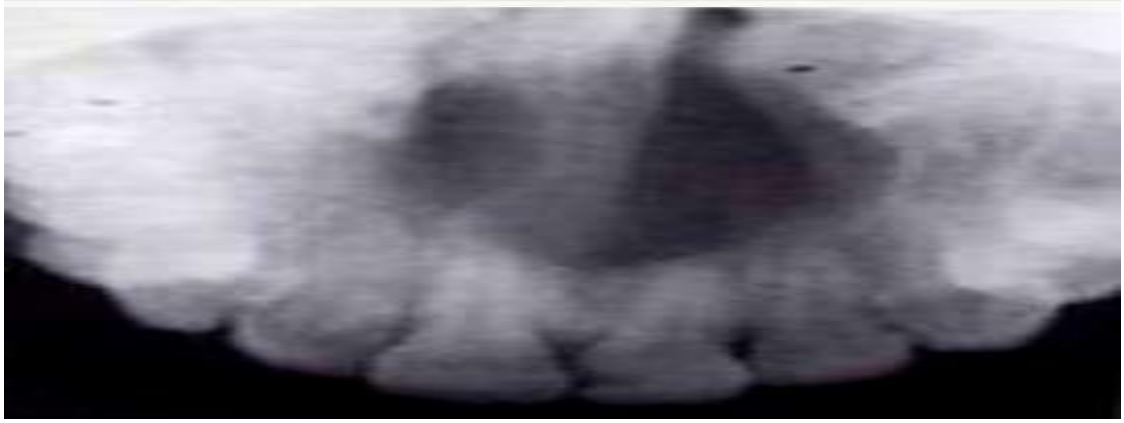
Median palatal cyst Median palatine cysts are rare, non-odontogenic fissural cysts of the hard palate. These cysts occur in the midline of the hard palate, behind the incisive canal**.** The most widely accepted theory suggests that it is the result of abnormal palatal development during embryogenesis. Fusion of the palatal shelves of the maxilla occurs during the sixth fetal week .Remnants of epithelium surrounding the two lateral maxillary processes that fuse to form the hard palate become entrapped. For unknown reasons, the epithelial remnants proliferate later in adult life and become cystic**.** Other pathologists suggest it is more likely that median palatine cysts are really nasopalatine cysts which have been displaced posteriorly to an unusual extent.

Clinically

The most common clinical presentation is **painless, fluctuant swelling** along the lingual surface of the palate in the midline. However, most of cases have been discovered as an incidental finding during routine dental or radiological examination). The cysts may become painful if the nasopalatine nerve is involved by local extension or if the cyst becomes infected.



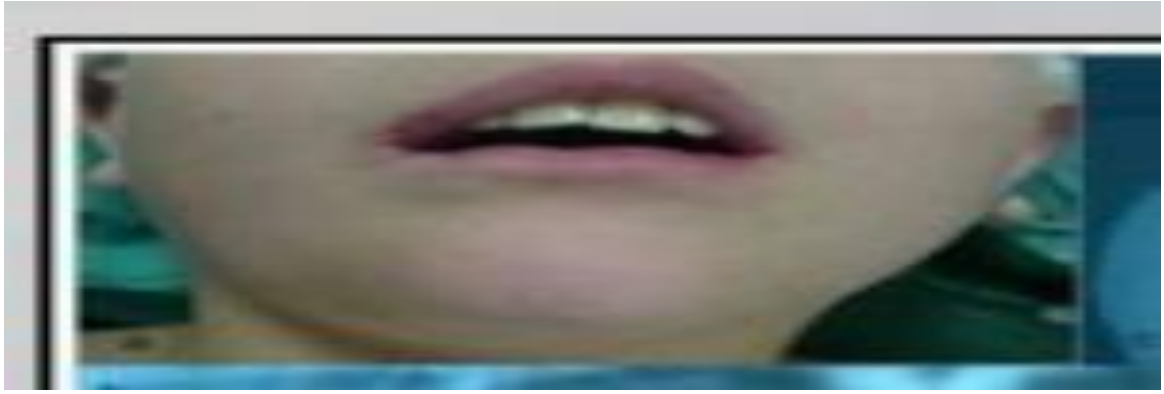
Radiographically : Well – defined unilocular oval or round radiolucency.



Treatment The cysts are usually treated by surgical enucleation, and recurrence is rare.

Median mandibular cyst

Is a type of cyst that occurs in the midline of the mandible, thought to be created by proliferation and cystic degeneration of resting epithelial tissue that is left trapped within the substance of the bone during embryologic fusion of the two halves of the mandible, A true median mandibular cyst would therefore be classified as a non-odontogenic, fissural cyst.



CLINICAL FEATURES : Clinically asymptomatic and discovered during routine x-ray, rarely expands the cortical plate, associated teeth are **vital.**

Radiographically

Well circumscribed unilocular radiolucency, surrounding the mandibular central incisors.



Extraosseous developmental cysts

Nasolabial cyst:

A developmental cyst of the **soft tissue** of the anterior mucobuccal fold beneath the ala of the nose, most likely derived from remnants of the inferior portion of the nasolacrimal duct. Also known as the naso-alveolar cyst , this rare condition occurs entirely in the soft tissues of the anterior maxillary vestibule.

Clinical and radiographical features:

This cyst is a unilateral or occasionally bilateral **painless** soft tissue swelling that result in a flattening of the naso-labial crease on the skin below the ala of the nose. If the upper lip is appropriately retracted, this cyst also can be seen inta-orally as a swelling located at the depth of the maxillary vestibule. Most of these cysts occur in the fourth and fifth decades of life and have a female predilection of approximately 3 to 1. Because this cyst is located entirely within soft tissue, it is **not readily apparent radiographically.**



Treatment: A nasolabial cyst is treated by surgical enucleation with particular care being exercised to prevent the lesion's perforation and collapse. Recurrence is rare.

Oral lymphoepithelial cyst

The Oral lymphoepithelial cyst , also termed benign lymphoepithelial cyst , commonly located intraorally on the posterior lateral border of the tongue and the anterior floor of the mouth.

Clinical features

The oral lymphoepithelial cyst is most commonly found on the anterior floor of the mouth and on the posterior lateral borders of the tongue. However, it can also occur on the ventral surface of the tongue, soft palate, tonsillar pillars, and oropharynx. It is a **symptomatic**, **yellow or tan**, superficial submucosal mass that usually measures less than 1 cm in diameter.



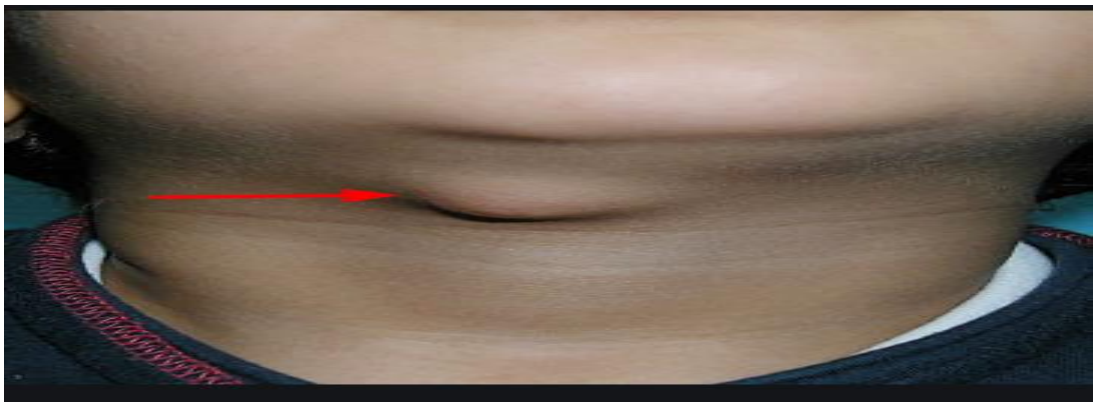
Thyroglossal tract cyst:

A cyst located above the thyroid gland and beneath the base of the tongue,The thyroglossal tract cyst is a relatively uncommon lesion derived from embryologic remnant of the thyroglossal tract. This tract extends from the foramen caeccum on the middorsum of the tongue to the thyroid gland.

Clinical features:

This cyst occurs primarily in children and young adults and presents as an **asymptomatic**, slowly enlarging, and mobile swelling involving the midline of

the **anterior neck above the thyroid gland**. A small percentage of these cysts occur within the tongue, where they can cause dysphagia. If infected or inflamed a draining fistula that communicates between the cyst and the overlying skin surface will occasionally develop.



Treatment: The treatment of the thyroglossal tract cyst requires complete surgical excision, because recurrence is a distinct possibility.

PALATALCYSTS OF THE NEWBORN (EPSTEIN'SPEARLS; BOHN'S NODULES)

Small developmental cysts are a common finding on the palate of newborn infants.

Clinical Features

Palatal cysts of the newborn are quite common and have been reported in 65% to 85% of neonates. The cysts are small, 1 to 3 mm white or yellowish-white papules that appear most often along the midline near the junction of the hard and soft palates, occasionally, they may occur in a more anterior location along the raphe or on the posterior palate lateral to the midline. Frequently a cluster of two to six cysts is observed, although the lesions also can occur singly.



Treatment and Prognosis

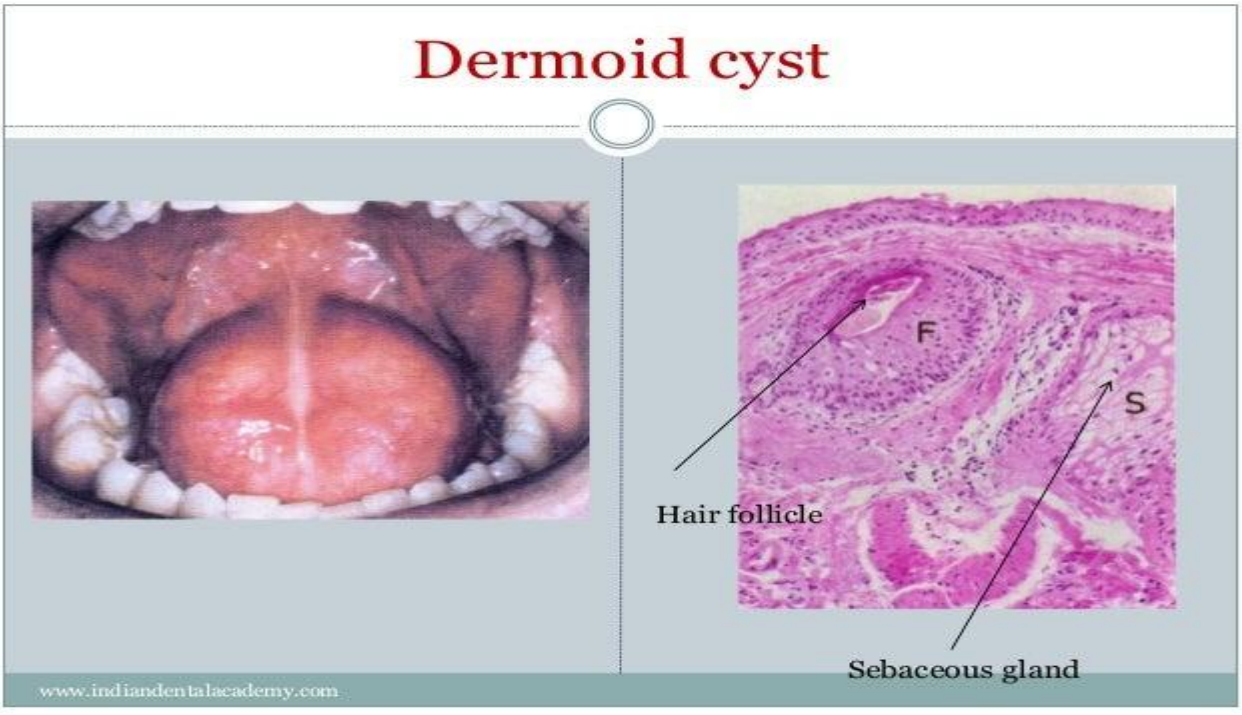
Palatal cysts of the newborn are innocuous lesions, and no treatment is required. They are self-healing and rarely observable several weeks after

birth. Presumably the epithelium degenerates, or the cysts rupture onto the mucosal surface and eliminate their keratin contents.

***Dermoid cyst*:** a cyst of the midline of the upper neck or the anterior floor of the mouth of young patients, derived from remnants of embryonic skin, consisting of a lumen lined by a keratinized stratified squamous epithelium, and containing one or more skin appendages such as hair, sweat, or se*baceous glands.*

Clinical features:

The dermoid cyst is a lesion of young adults (teenagers).no gender predilection is seen. Cysts of the anterior upper neck or floor of the mouth present as **painless swellings** exhibiting a doughy consistency on palpation. Cysts that develop above the mylohyoid muscle present as a midline swelling in the sublingual (floor of the mouth) area. In this location the cyst results in elevation of the tongue and can interfere with eating and speaking. Cysts that develop below the mylohyoid muscle appear as a midline swelling in the submandibular and submental region. The size of these cysts is variable, but most are 2 cm or less in diameter.



Histopathology

A layer squamous epithelium exhibiting variable number of **dermal appendages,** including **hair follicle, sebaceous glands,**. The cystic lumen is generally filled with a **hair shafts**. The cyst capsule is composed of generally free of inflammation.

Treatment

This cyst is best treated by surgical enucleation or excision. Recurrence is uncommon.

Epidermoid cyst:

A cyst of skin with a lumen lined by keratinizing stratified squamous epithelium, usually filled with keratin and **without skin appendages in the capsule wall.** The epidermoid cyst closely resembles a dermois cyst, except that the former exhibit **no dermal appendages**. They are lined by squamous epithelium and exhibit a lumen that is generally filled with desquamated **keratin**. The cyst wall consists of a narrow zone of compressed fibrous connective tissue that is generally free of inflammation. This cyst is treated by surgical enucleation or excision. Recurrence is uncommon.