Developmental Defects of the Oral and Maxillofacial Region

口腔及顎顏面區域之發育缺陷

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學習目標

1. 了解口腔及顎顏面區域之發育缺陷之種類及內容
2. 了解發育性囊腫之種類、臨床、X光及病理表現

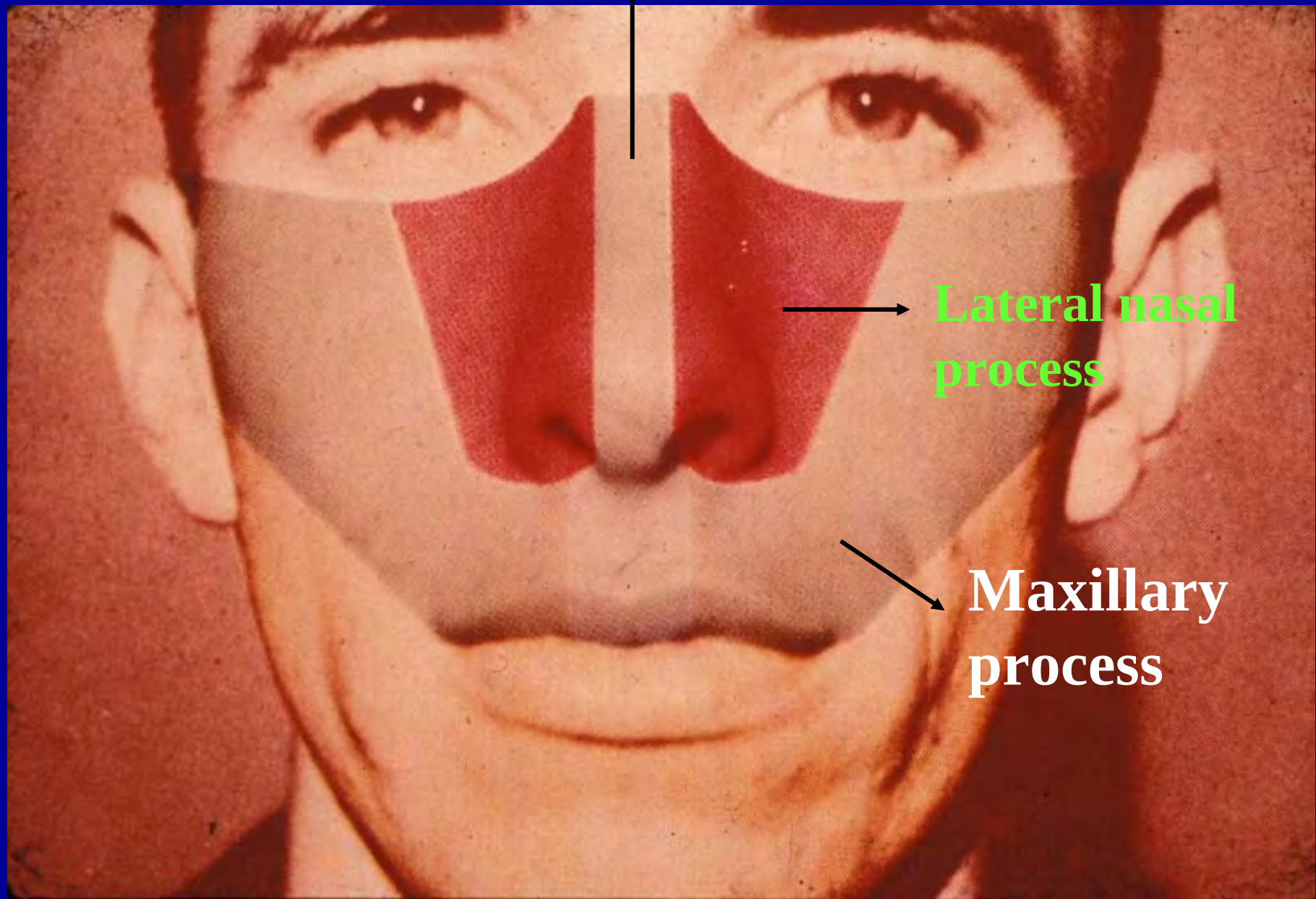
學習資源：**Oral and Maxillofacial Pathology, 2nd edition, Neville et al. pages 1-48**

Orofacial Clefts

Upper lip

1. Midportion – medial nasal process
2. Lateral portions – maxillary processes

Medial nasal process



Primary palate

1. From medial nasal processes
2. Forms premaxilla
3. Includes 4 incisors

Secondary palate

1. Forms 90 % of hard and soft palates
2. From maxillary processes of the first branchial arches

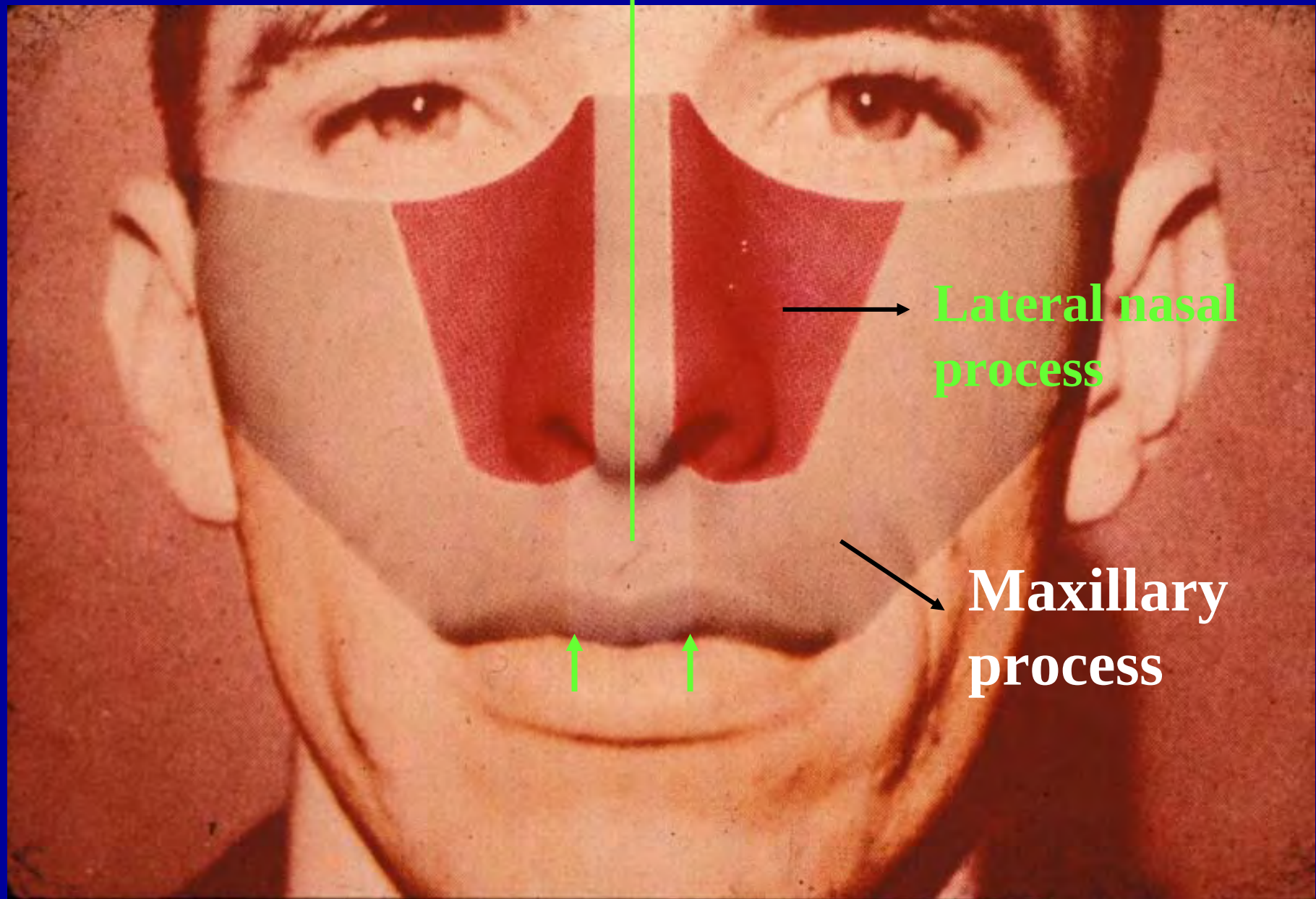
Palate formation

1. Palatal shelves – from medial aspects of the maxillary processes (6th week)
2. Tongue drops down
3. Palatal shelves rotate to a horizontal position, fuse one another, and fuse with primary palate and nasal septum (8th to 12th weeks)

Cleft Lip (CL)

Defective fusion of the medial nasal process with the maxillary processes

Medial nasal process



Cleft Palate (CP)

Defective fusion of the palatal shelves

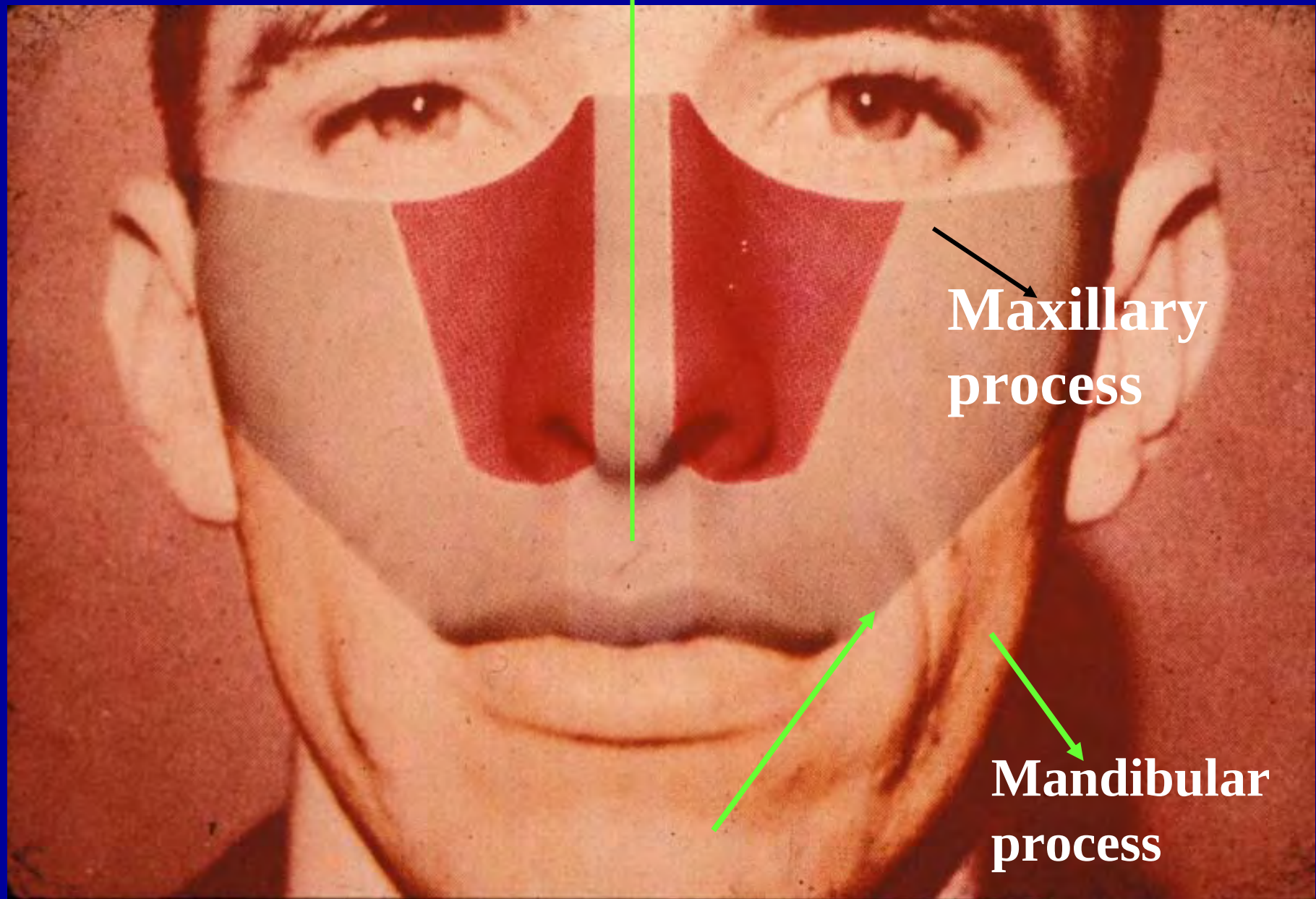
CL and CP

1. CL+CP – 45%
2. Isolated CP – 30%
3. Isolated CL – 25%

Lateral Facial Cleft

1. Lack of fusion of the maxillary and mandibular processes
2. 0.3% of facial clefts
3. From the commissure to the ear

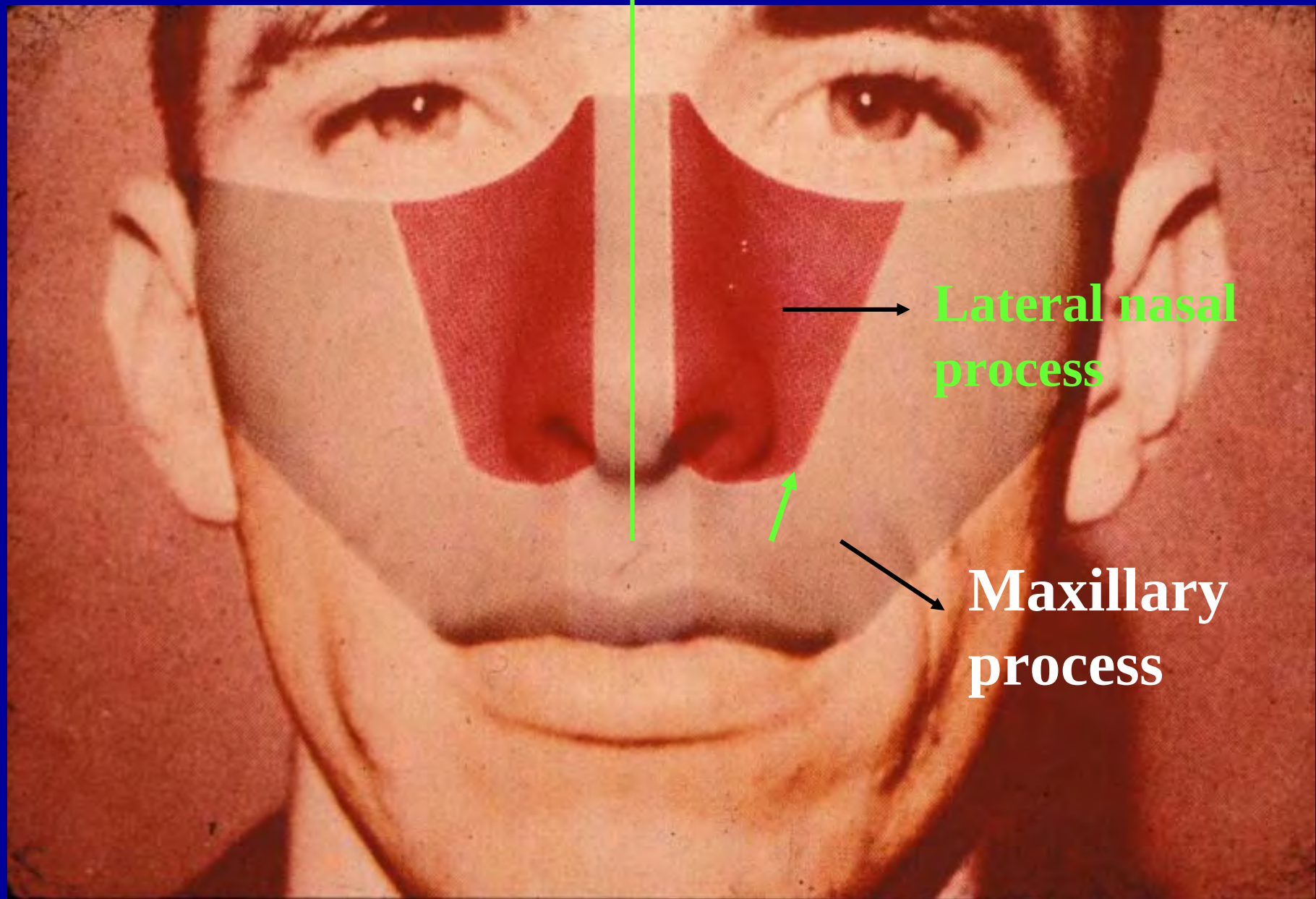
Medial nasal process



Oblique Facial Cleft

1. From upper lip to the eye
2. One in 1300 facial clefts
3. Failure of fusion of
   lateral nasal process with
   maxillary process or caused by
   amniotic bands

Medial nasal process



Median Clefts of Upper Lip

Failure of fusion of the medial nasal processes

Median Maxillary Anterior Alveolar Clefts

A bony defect in the midline of the maxilla between the central incisors

CL ± CP

1. Whites: 1 of every 700-1000 births
2. Asians: 1.5 of every 700-1000 births
3. Blacks: 0.4 per 1000 births
4. Native Americans: 3-6 per 1000 births

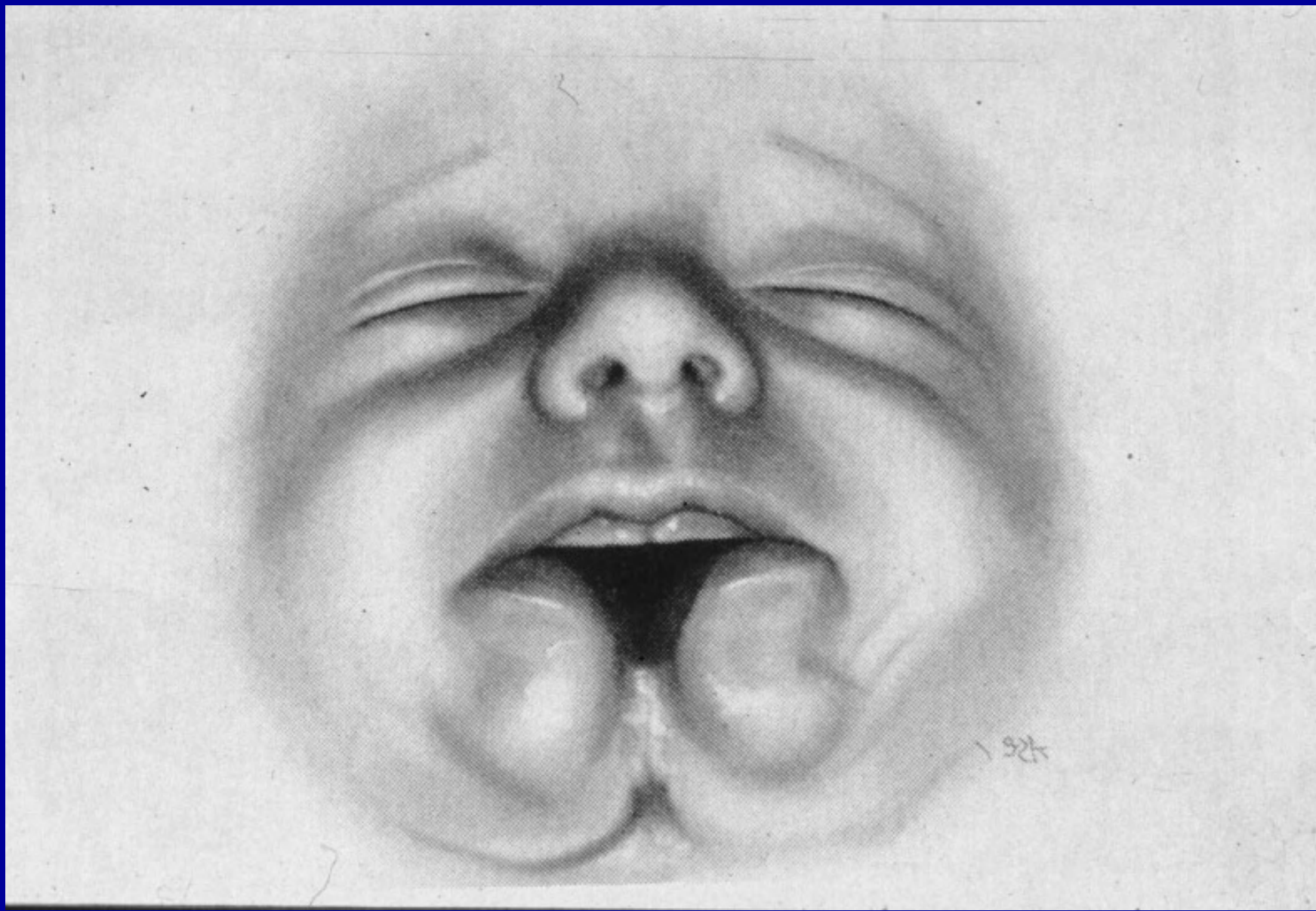
Cleft lip

Cleft lip and Cleft palate

Cleft palate

Cleft palate

Cleft lower lip and lower jaw defect



Isolated CP

Whites and blacks:

0.4 per 1000 births

Sex predilection

1. CL ± CP: male predilection
2. Isolated CP: female predilection

Male to female ratio for CL ± CP

1. Isolated CL: 1.5:1
2. CL + CP: 2:1

Male to female ratio for CP

1. Clefts of both hard and soft palates:

1:2

2. Clefts of soft palate only:

1:1

Cleft Lip

1. Unilateral: 80%
   (70% on the left side)
2. Bilateral: 20%

Cleft or bifid uvula

1. The most minimal manifestation of cleft palate
2. Whites: 1 in 80 persons
3. Asians: 1 in 10 persons
4. Native Americans: 1 in 10 persons
5. Blacks: 1 in 250 persons

Bifid uvula

Submucous Palatal Cleft

1. Surface mucosa intact
2. A defect in underlying musculature of the soft palate

Submucous Palatal Cleft

3. A notch in the posterior margin of the hard palate
4. A bluish midline discoloration occasionally
5. An associated cleft uvula

Pierre Robin sequence

Pierre Robin anomalad

1. Cleft palate
2. Mandibular micrognathia
3. Glossoptosis

Pierre Robin sequence

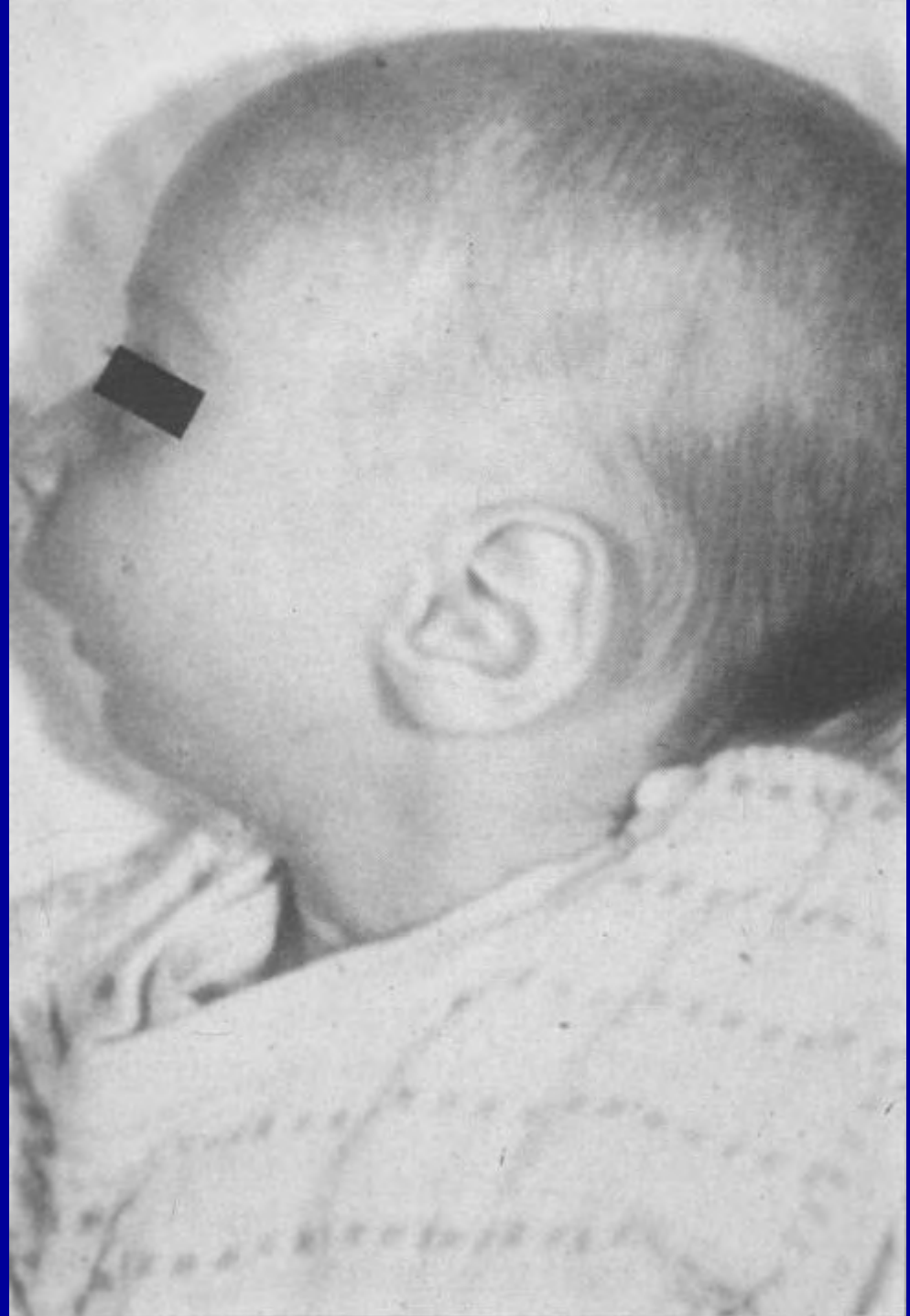
1. Constraint of mandibular growth in utero
2. Failure of the tongue to descend
3. Failure of fusion of the palatal shelves

Pierre Robin sequence

Micrognathic mandible

+

Cleft palate



Retruded mandible

Results in:

1. Posterior displacement of the tongue
2. Lack of support of the tongue musculature
3. Airway obstruction

Cleft palate

Results in:

1. Poor appearance, psychosocial difficulties
2. Feeding and speech difficulties
3. Malocclusion
4. Missing teeth or supernumerary teeth

Timing of surgery

1. CL – first few months of life
2. CP – 18 months of age

Genetic counseling

Nonsyndromic cases

The risk for cleft development in a sibling or offspring of an affected person

1. If no other first-degree relatives are also affected – 3-5%
2. If other first-degree relatives are also affected – 10-20%

Genetic counseling

Syndromic cases

Higher risk, depending on the possible inheritance pattern

Commissural lip pits

1. Small mucosal invaginations at the mouth corners
2. Failure of fusion of the embryonal maxillary and mandibular processes
3. 0.2-0.7% in children
   12-20% in adults (develop later in life)

Commissural lip pits

4. Males > females
5. Unilateral or bilateral
6. Blind fistula (1-4 mm)
7. Saliva may be expressed from the pit.
8. Higher incidence of preauricular pits

Commissural pits

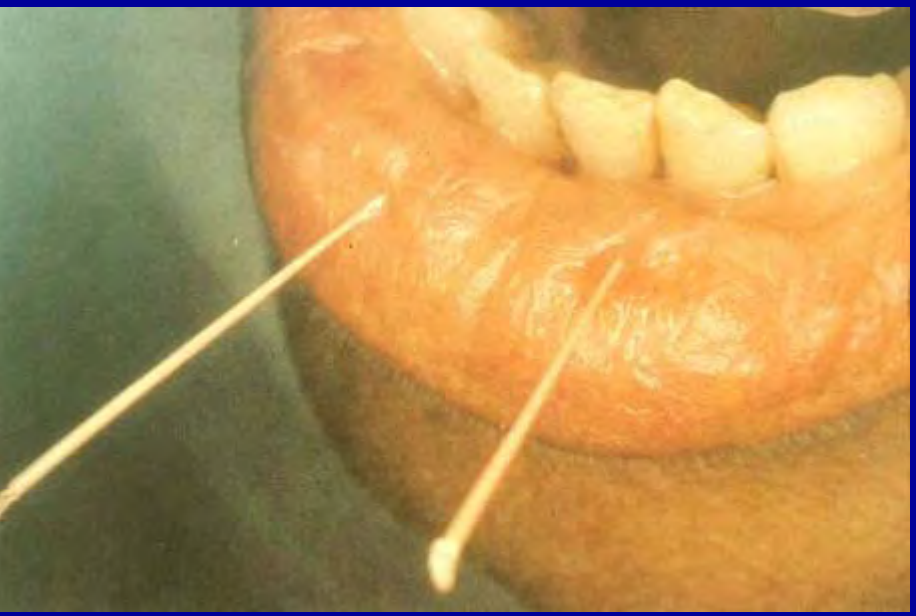
Paramedian lower lip pits

1. Persistence of the lateral sulci on the embryonic mandibular arch
2. Bilateral and symmetric fistulas
3. Blind sinuses up to 1.5 cm

Paramedian lower lip pits

4. May express salivary secretions
5. Autosomal dominant trait in combination with CL and/or CP (van der Woude syndrome)
6. May pass the van der Woude syndrome on to the offspring

Paramedian lip pits



Double lip

1. Redundant fold of tissue on the mucosal side of the lip
2. Congenital – persistence of the sulcus between the pars glabrosa and pars villosa of the lip

Double lip

3. Acquired – a component of Ascher syndrome or results from trauma or sucking on the lip
4. More on the upper lip

Double lip

Ascher syndrome

1. Double lip
2. Blepharochalasis (瞼皮鬆垂)
3. Nontoxic thyroid enlargement

Ascher syndrome

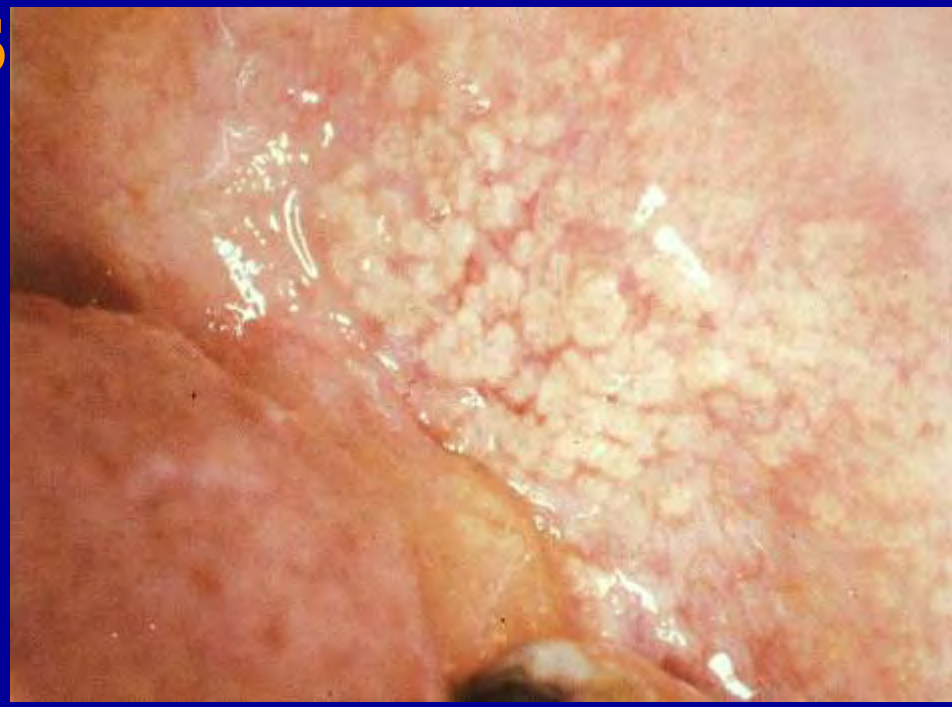
Edema of upper eyelids
Blepharochalasis

Fordyce granules

1. “Ectopic” sebaceous glands in the oral mucosa
2. $>$80% in the population
3. Yellow papules
4. On the buccal mucosa and vermilion of the upper lip
5. More common in adults than in children

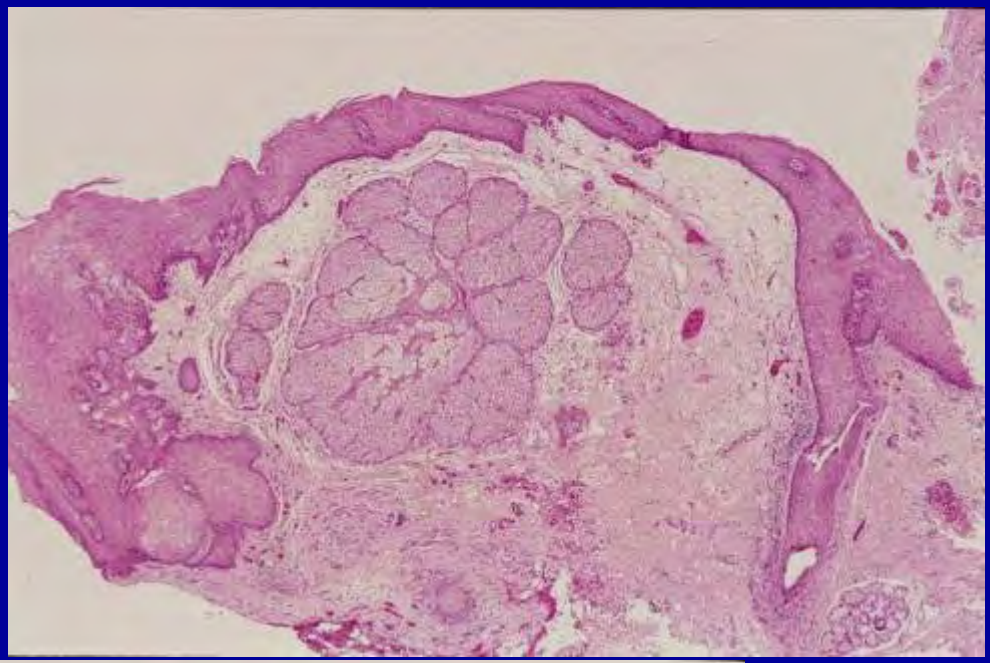
Fordyce's granules

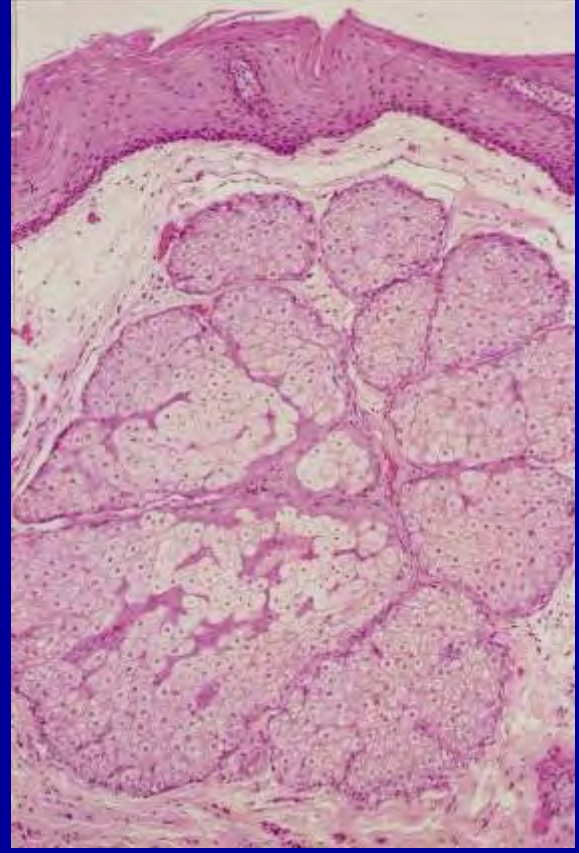
Fordyce’s granules

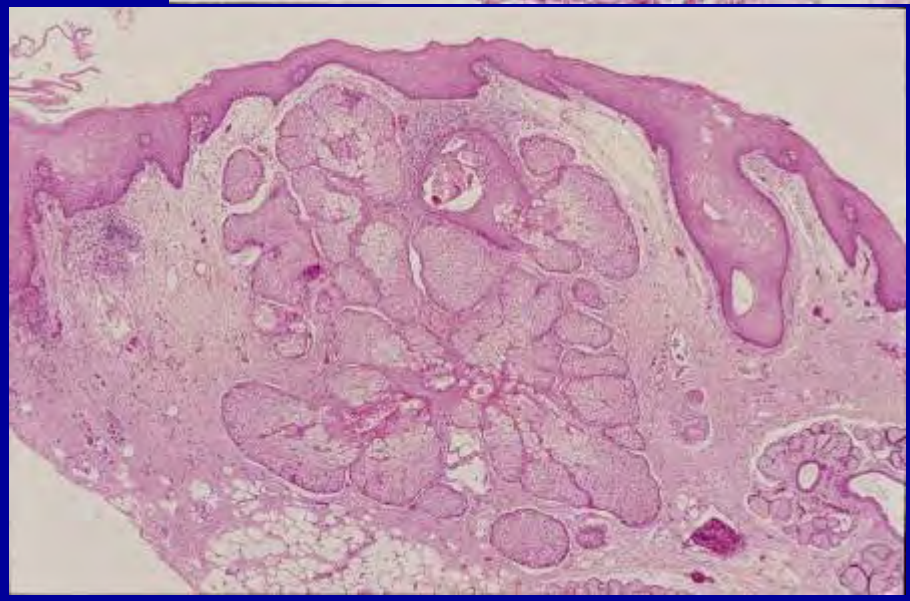


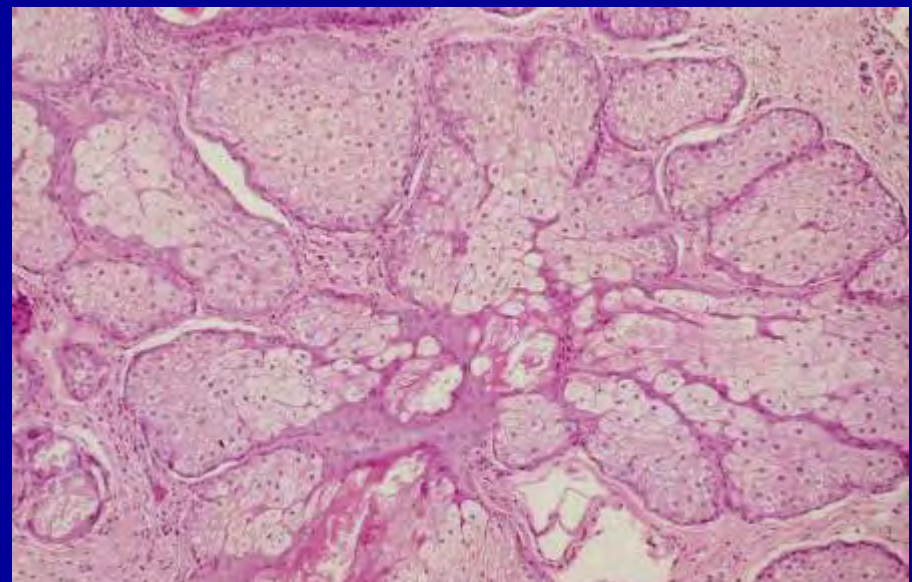
Fordyce's granules

Fordyce's granules

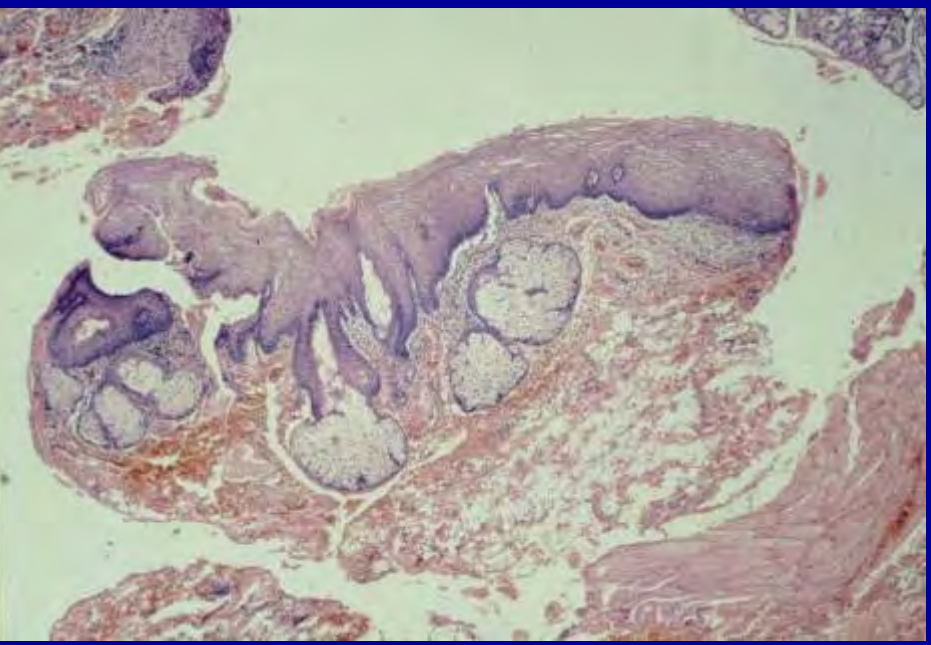


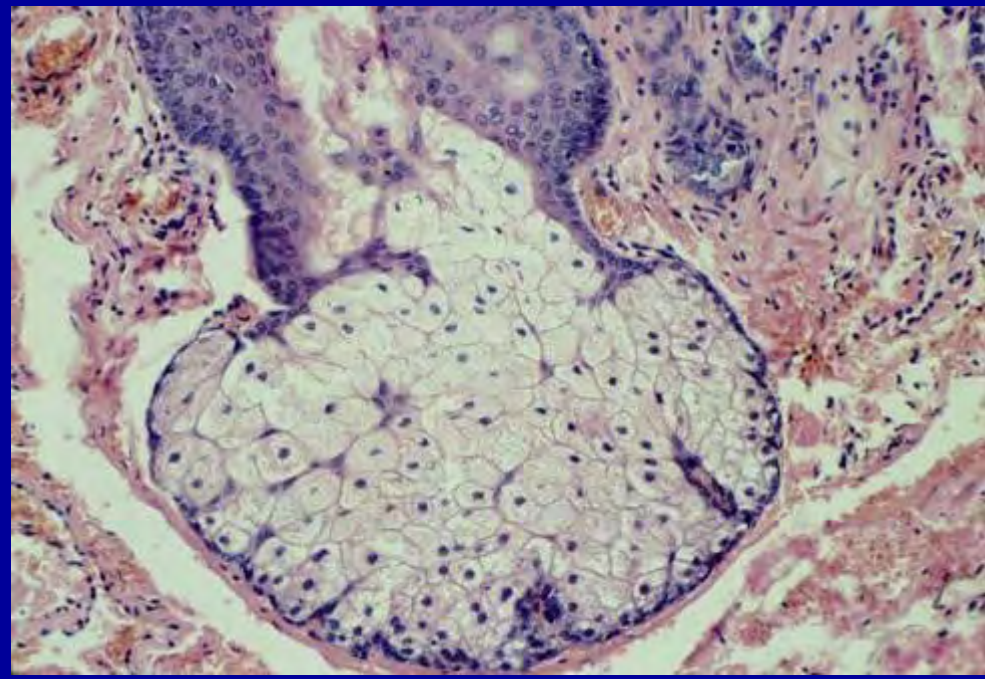






Fordyce’s granules





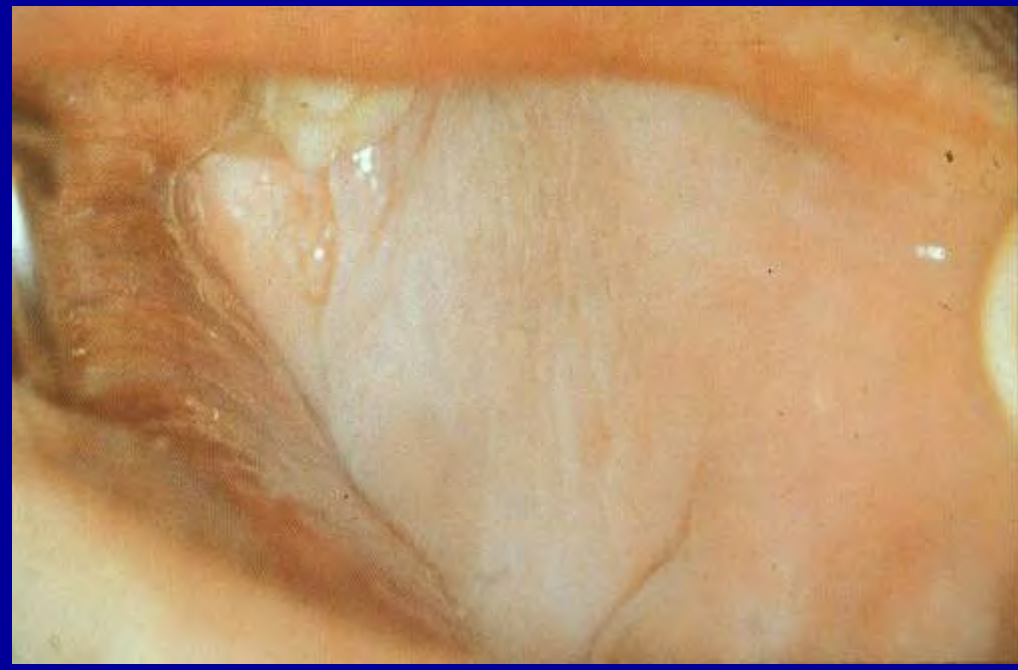
Leukoedema

1. More common in blacks than in whites
2. 90% in black adults
   50% in black children
3. 10 – 90% in whites
4. More common in smokers

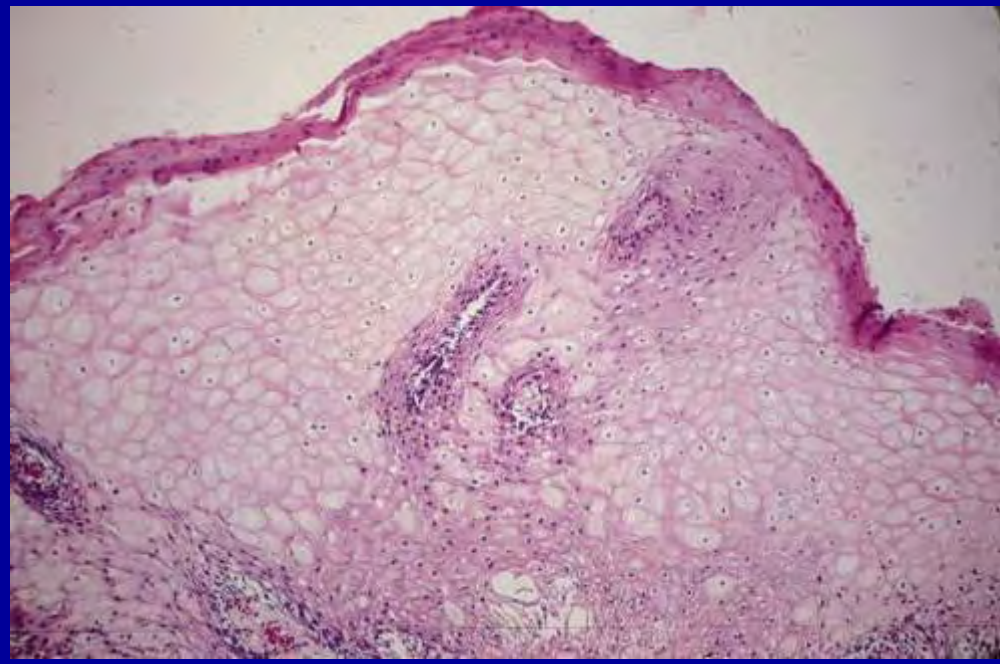
Leukoedema

1. Diffuse, milky–white, opalescent appearance of the mucosa
2. Bilateral on the buccal mucosa
3. Diminishes or disappears when the cheek is stretched

Leukoedema



White spongy nevus



Leukoedema

Histopathologic features

1. Parakeratinization
2. Intracellular edema of the spinous layer

Microglossia

1. Abnormally small tongue
2. Associated with
   hypoplasia of the mandible

Macroglossia

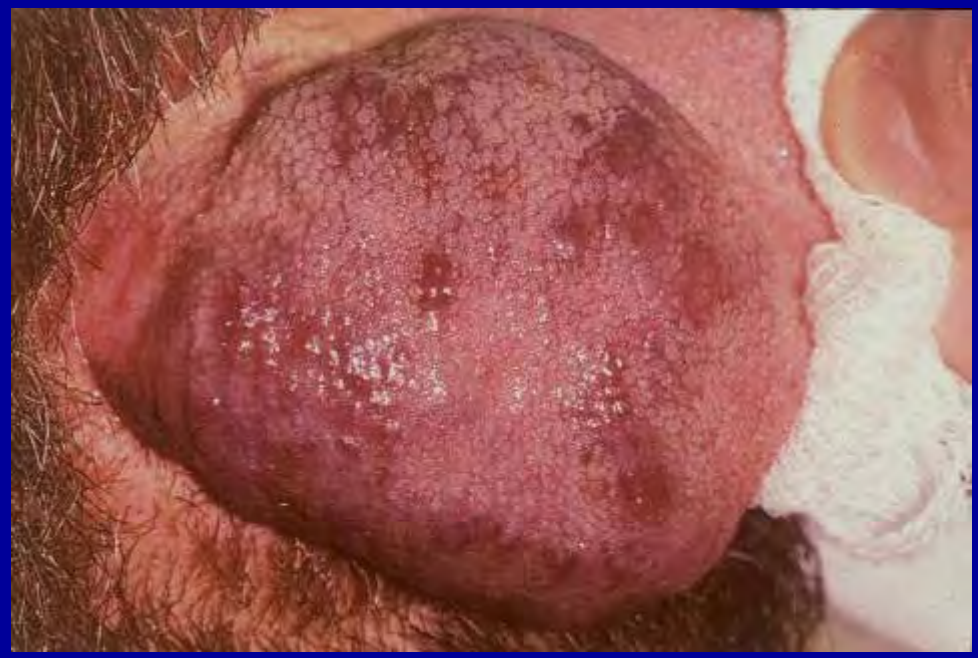
1. Abnormally large tongue
2. Caused by vascular malformation and muscular hypertrophy

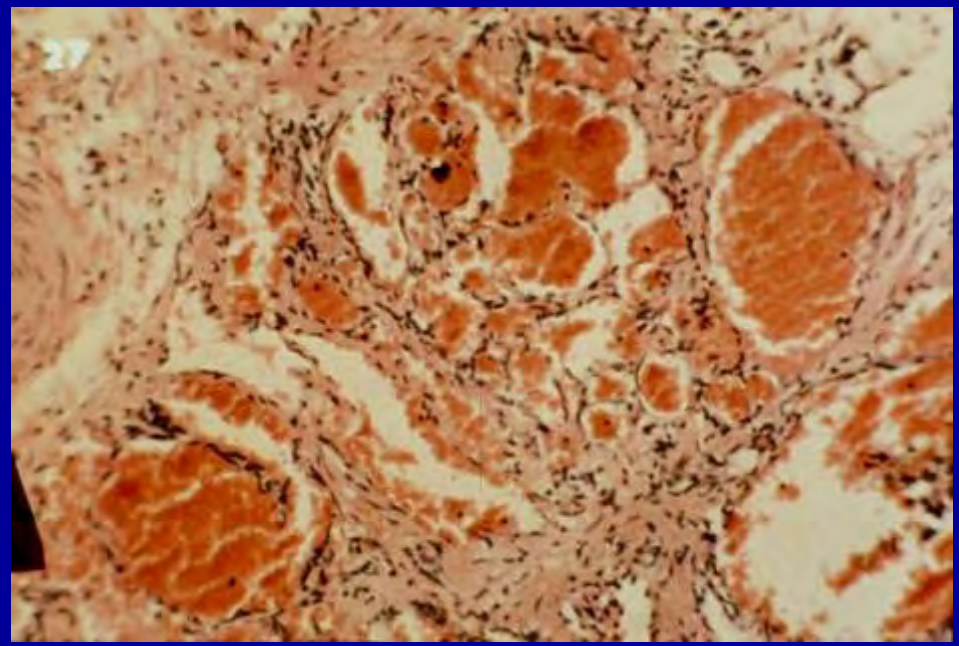
Causes of macroglossia

Congenital and hereditary

1. Vascular malformations
   - Lymphangioma
   - Hemangioma
2. Hemihypertrophy

Macroglossia Hemangioma





Hemihypertrophy

Causes of macroglossia

3. Cretinism
   (glycosaminoglycan accumulation)
4. Beckwith-Wiedemann syndrome

Causes of macroglossia

5. Down syndrome
6. Mucopolysaccharidoses
7. Neurofibromatosis
8. Multiple endocrine neoplasia, type Ⅲ

Causes of macroglossia

Acquired

1. Edentulous patients
2. Amyloidosis
3. Myxedema
4. Acromegaly
5. Angioedema
6. Carcinoma and other tumors

Macroglossia
Acromegaly

Macroglossia
Amyloidosis

Macroglossia

Hemodialysis-associated amyloidosis (accumulation of β-2 microglobulin)

Beckwith-Wiedemann syndrome

1. Macroglossia
2. Omphalocele (protrusion of part of the intestine through a defect in the abdominal wall at the umbilicus）

Beckwith–Wiedemann syndrome

3. Visceromegaly
4. Gigantism
5. Neonatal hypoglycemia

Down syndrome

A papillary, fissured tongue

Ankyloglossia

Tongue tie

1. A short, thick lingual frenum
2. 2–3 of every 10,000 people
3. May have speech defects.
4. Surgery may be postponed until age 4 or 5

Ankyloglossia (Tongue tie)

Tongue tie, bifid tongue

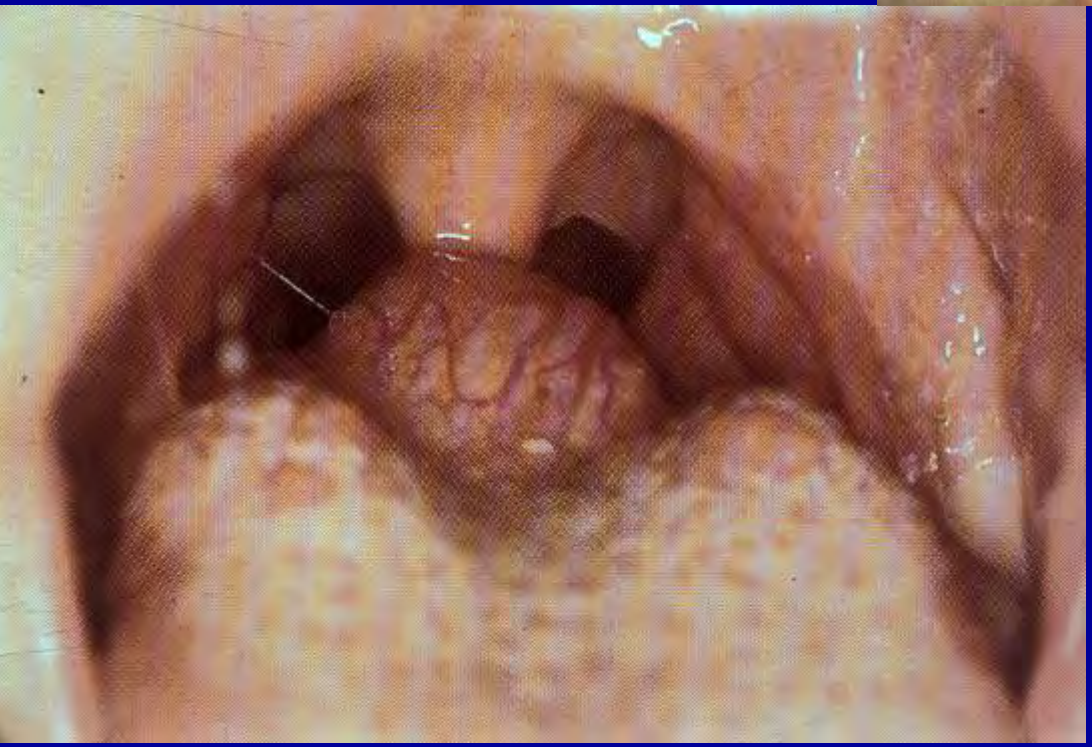
Lingual thyroid

1. Ectopic thyroid between foramen cecum and the epiglottis
2. Four times more frequent in females
3. In 70% of cases, this ectopic gland is the patient's only thyroid tissue.

Lingual thyroid

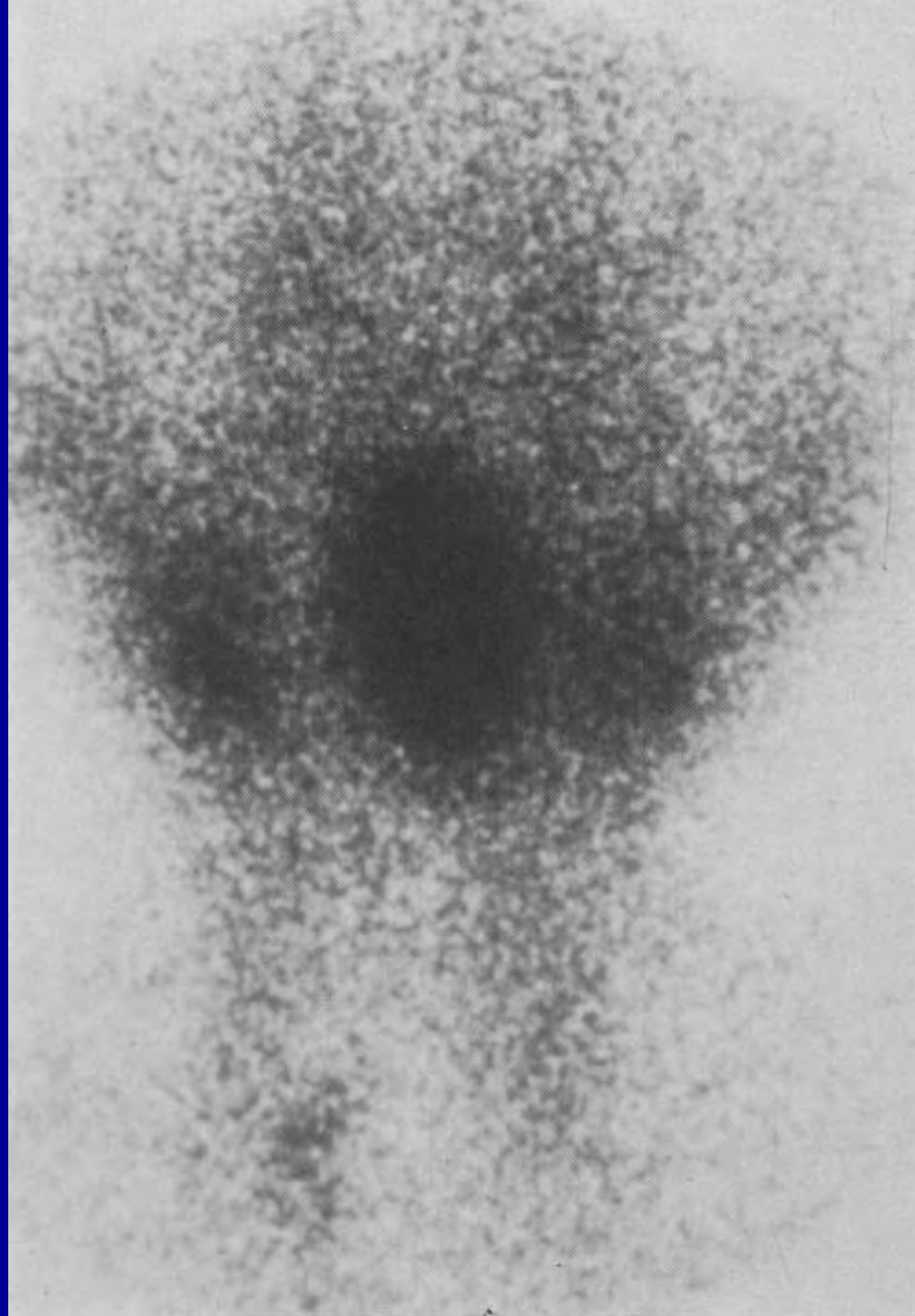
4. Symptoms: dysphagia, dysphonia and dyspnea
5. Hypothyroidism: 15–33% of patients
6. Diagnosis: thyroid scan using iodine isotopes
7. Carcinomas arising in lingual thyroids – 1%

Lingual thyroid



Lingual thyroid

Thyroid scan : Uptake in the tongue mass



Fissured tongue (Scrotal tongue)

1. Heredity
2. Aging or local environmental factors
3. Multiple grooves on dorsal tongue, ranging from 2 to 6 mm in depth

Fissured tongue (Scrotal tongue)

4. 2–5% in the population
5. The prevalence and severity increase with age.
6. A male predilection
7. Associated with geographic tongue

Fissured tongue

Geographic tongue

Melkersson-Rosenthal syndrome

1. Fissured tongue
2. Facial paralysis
3. Cheilitis granulomatosa

Melkersson Rosenthal syndrome

Cheilitis granulomatosa

Hairy tongue

Associated factors

1. Heavy smoking habit
2. Antibiotic therapy
3. Poor oral hygiene
4. General debilitation

Hairy tongue

5. Radiation therapy
6. Use of oxidizing mouth washes or antacids
7. Overgrowth of fungal or bacterial organism

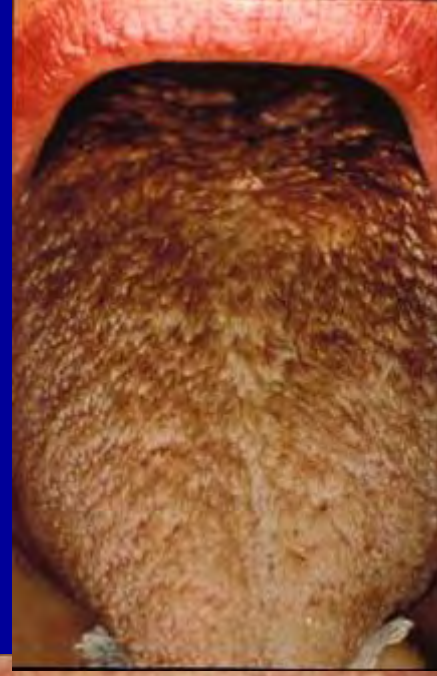
Hairy tongue

1. Marked elongation and hyperkeratosis of the filiform papillae
2. In 0.5% of adults

Hairy tongue

3. Growth of pigment-producing bacteria or staining from tobacco and food
4. Treated by periodic scraping or brushing with a toothbrush

Hairy tongue



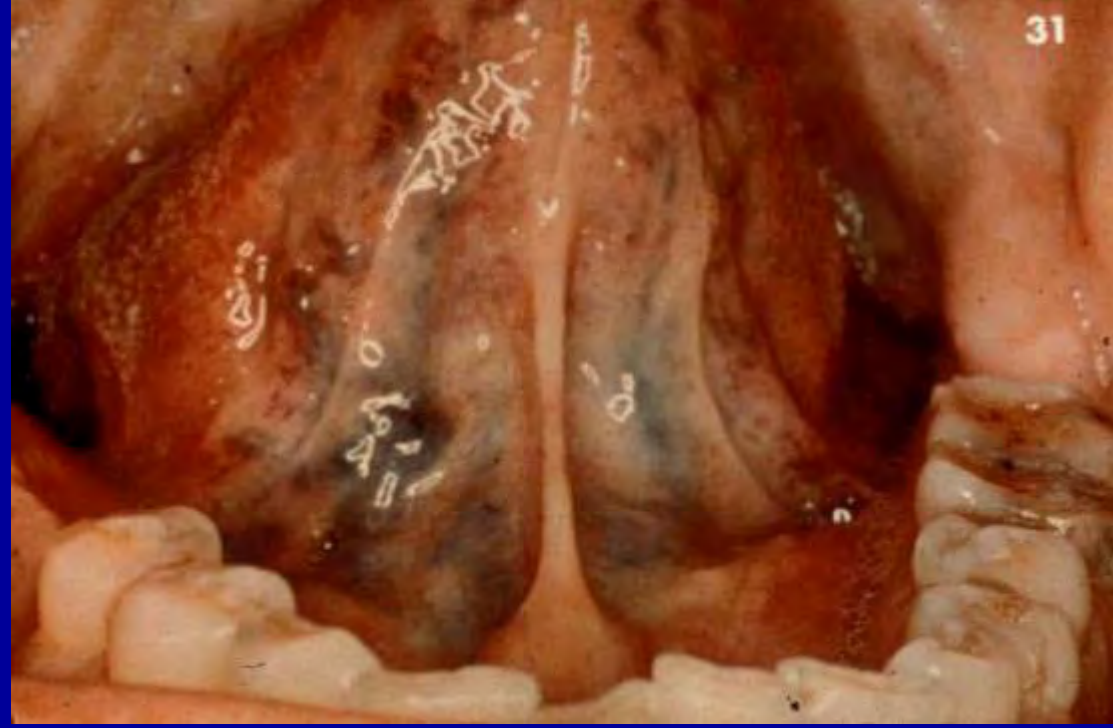
Sublingual Varicosities (Varices)

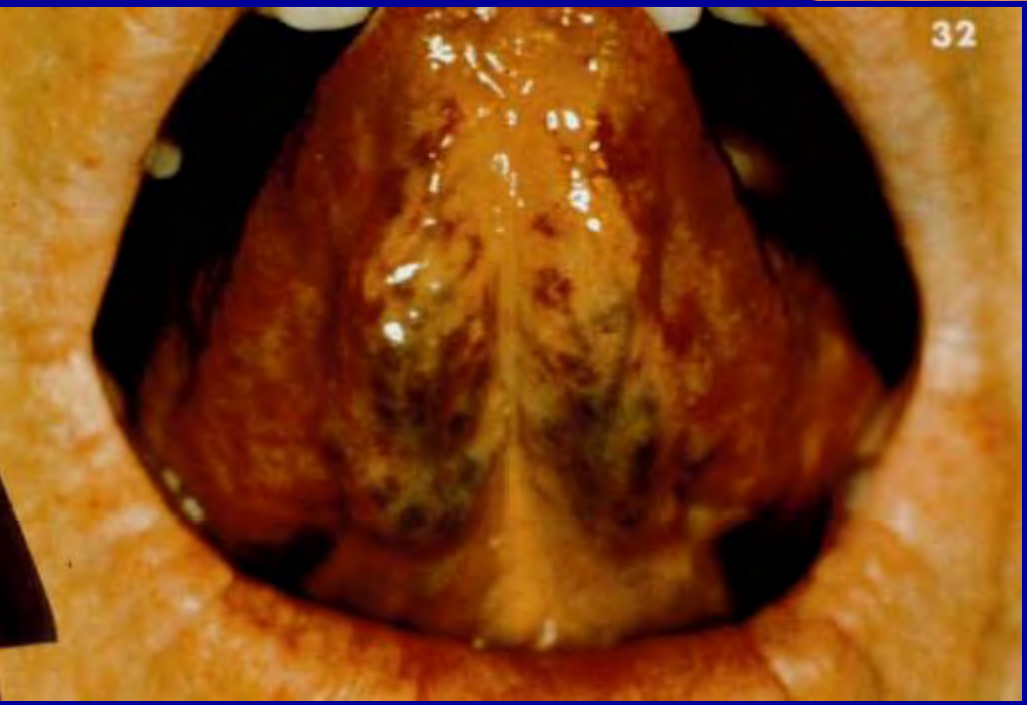
1. Dilated and tortuous veins on the ventral tongue
2. Occur in 2/3 of people older than 60 years of age

Sublingual Varicosities (Varices)

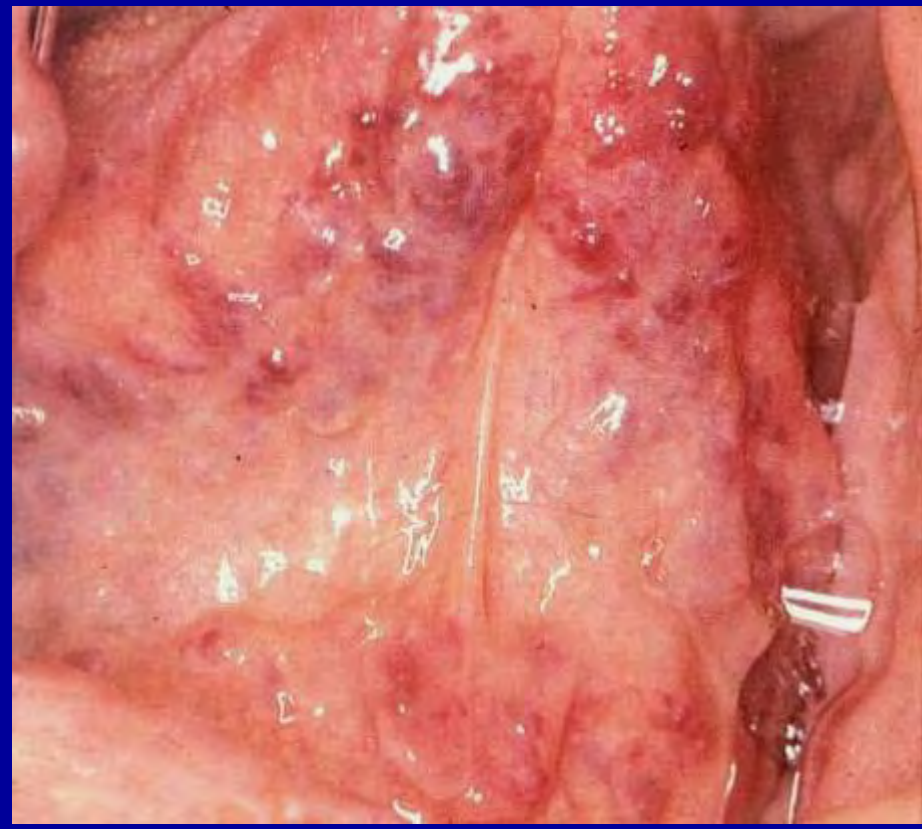
3. Not associated with hypertension or other cardiopulmonary diseases
4. May become thrombosed or contain phlebolith

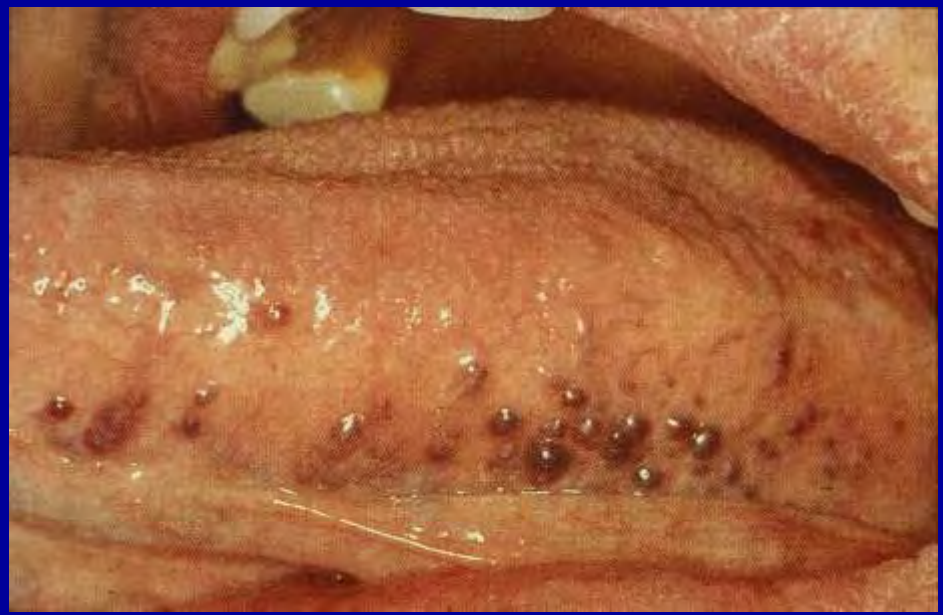
Sublingual varicosities





Sublingual varicosities

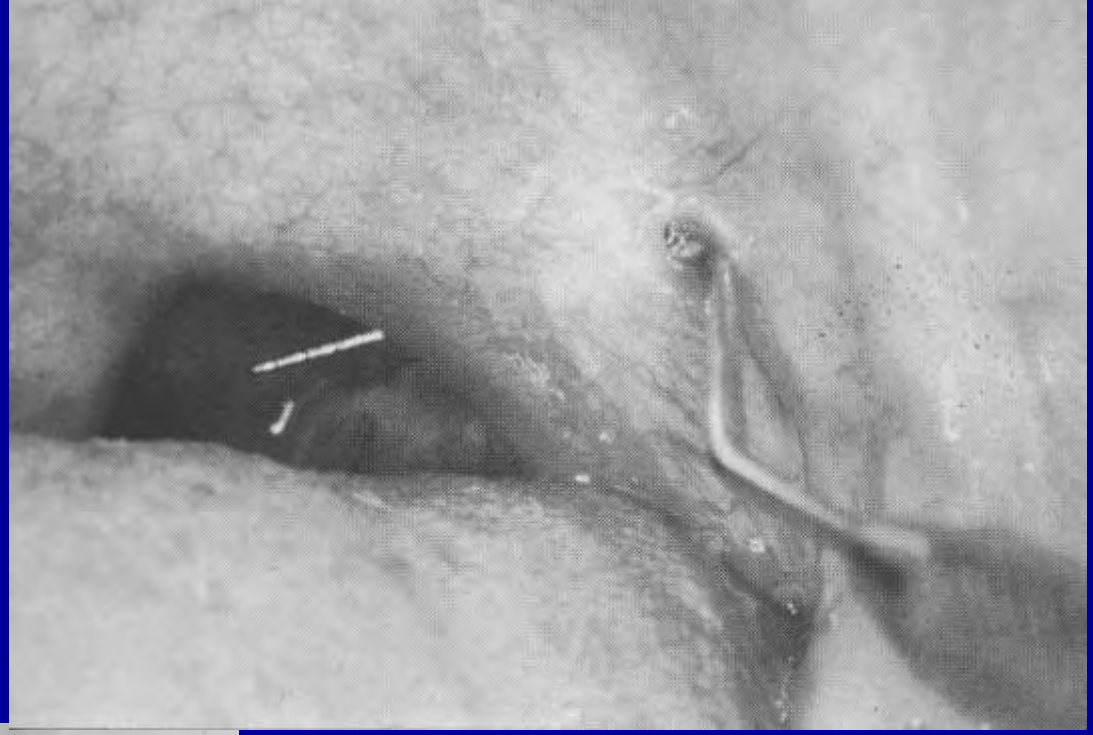




Lateral soft palate fistulas

1. Congenital, a defect in the development of the second pharyngeal pouch
2. The result of infection or surgery of the tonsillar region
3. Common on anterior tonsillar pillar

Lateral soft palate fistula



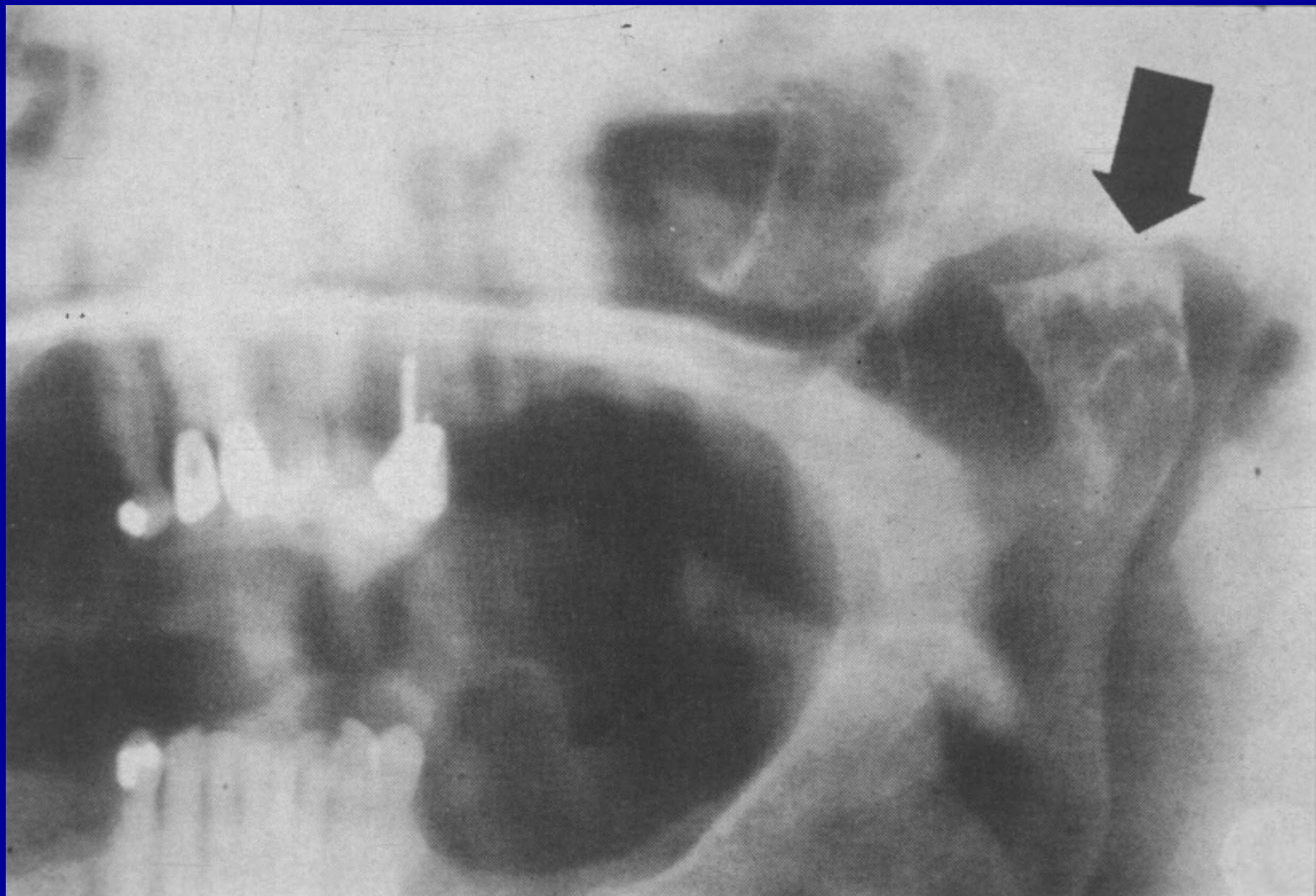
Coronoid hyperplasia

1. Unilateral: osteoma, osteochondroma or hyperplasia
2. Bilateral: common in males, resulting in limitation of mandibular opening

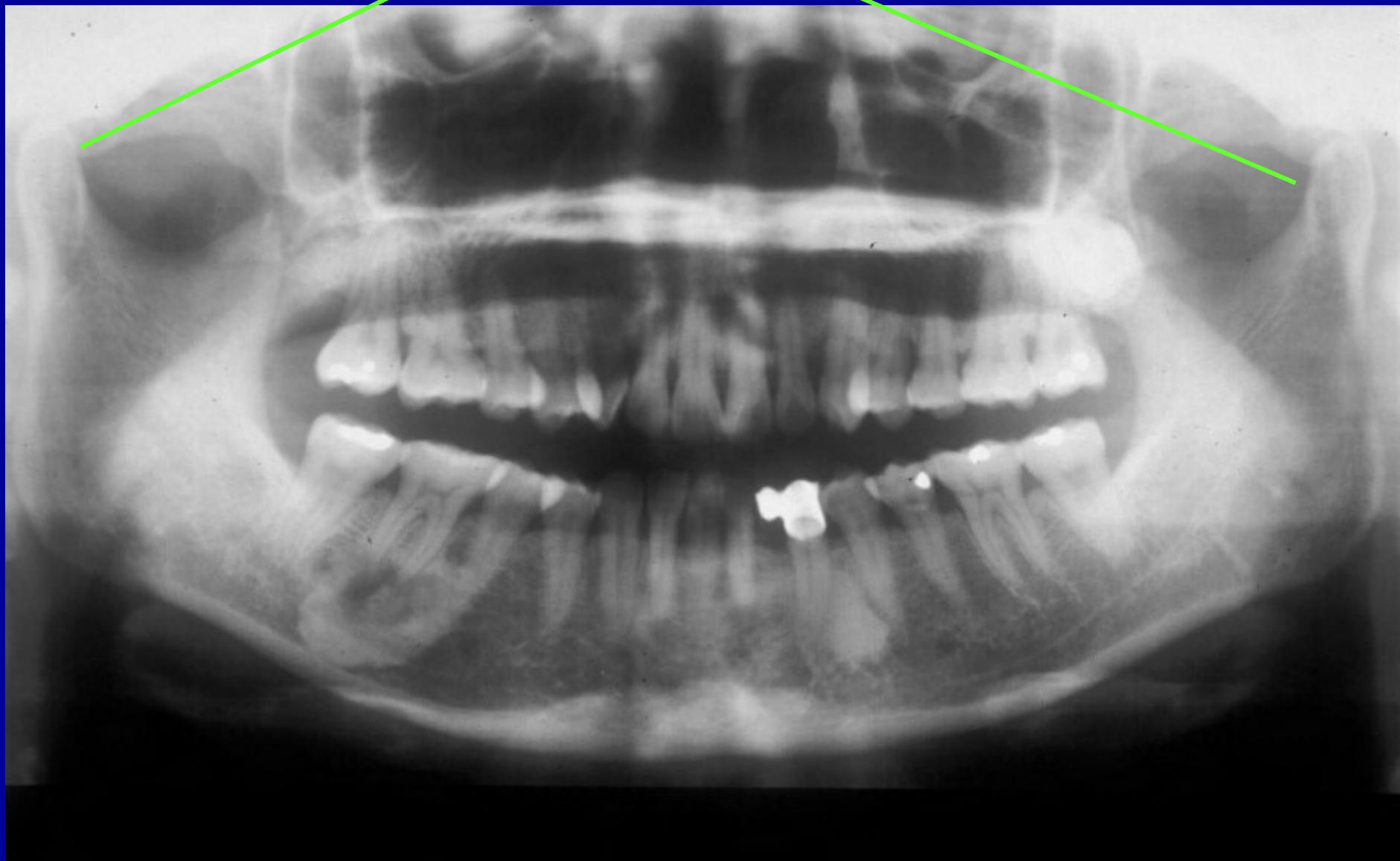
Condylar hyperplasia

1. Causes facial asymmetry, prognathism, crossbite, open bite, tilting of the occlusal plane
2. Treated by unilateral condylectomy

Condylar hyperplasia



Normal condyles



Congenital condylar hypoplasia

Associated with mandibulofacial dysostosis, oculoauriculovertebral syndrome (Goldenhar syndrome), hemifacial microsomia

Acquired condylar hypoplasia

1. Trauma to the condylar region during infancy or children
2. Infections, radiation therapy, rheumatoid or degenerative arthritis

Condylar hypoplasia

1. Bilateral – produces a small mandible with a class II malocclusion
2. Unilateral – results in depression of the face on the affected side

TMJ ankylosis

TMJ ankylosis

Resulting in condylar hypoplasia, trismus

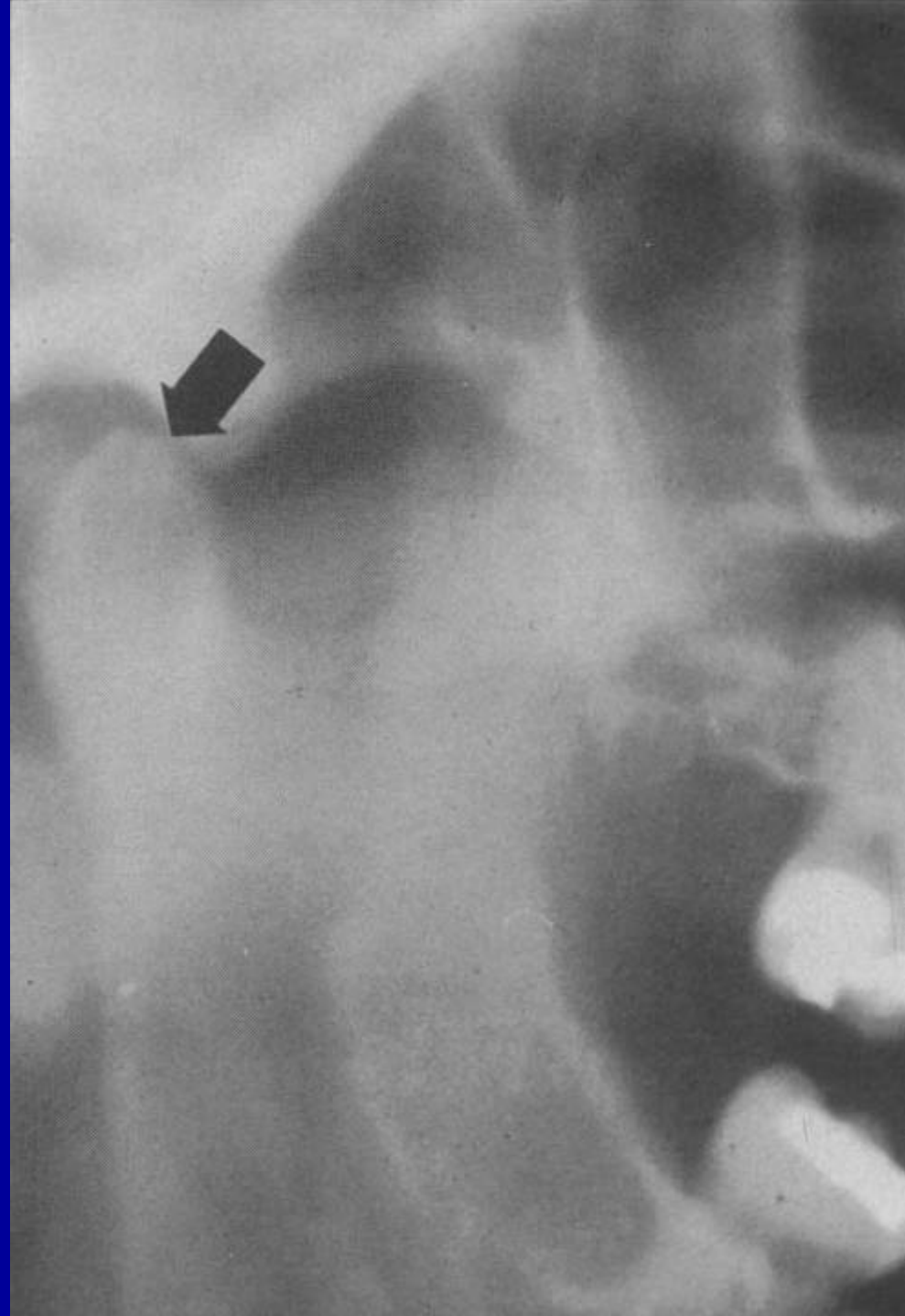
Bifid condyle

1. A double–headed mandibular condyle
2. Anteroposterior bifid condyles – traumatic origin (fracture)

Bifid condyle

3. Mediolateral bifid condyles – due to abnormal muscle attachment, teratogenic agents, persistence of a fibrous septum within the condylar cartilage
4. No treatment is needed.

Bifid condyle



Exostoses

1. A row of bony hard nodules along the facial aspect of alveolar ridge
2. Males = females
3. In 1 of every 1000 adults
4. A mass of dense, lamellar bone with fibrofatty marrow

Exostosis

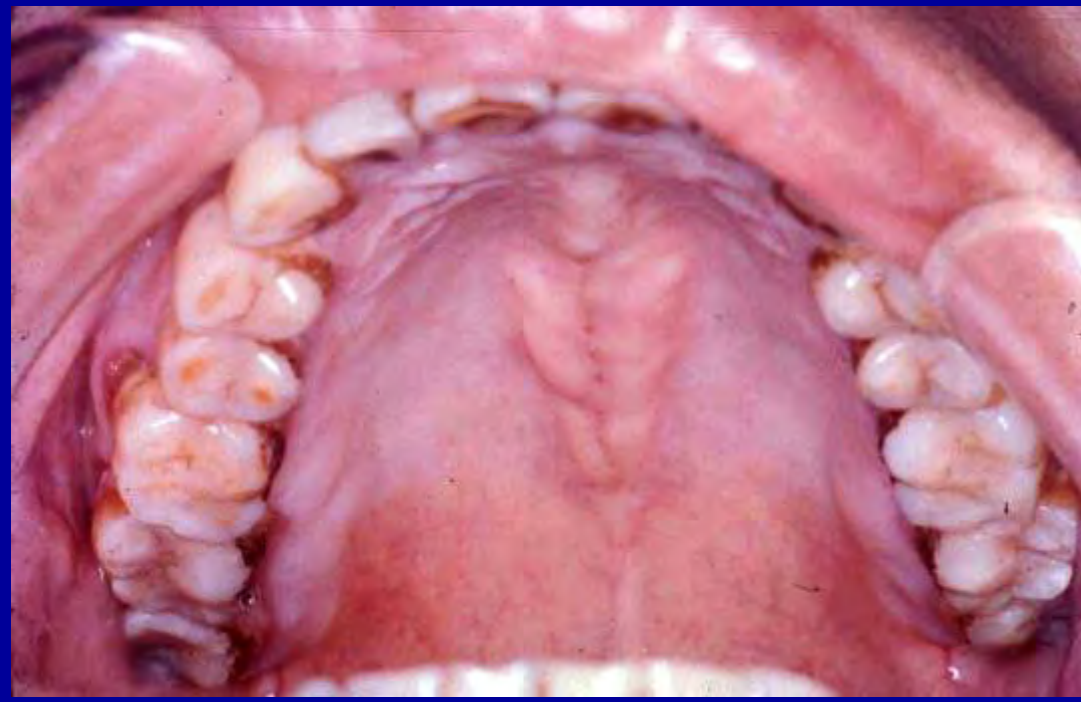
Torus palatinus

1. Pathogenesis: genetic or environmental
2. A bony mass along the midline of the hard palate
3. Flat, spindle, nodular, lobular torus

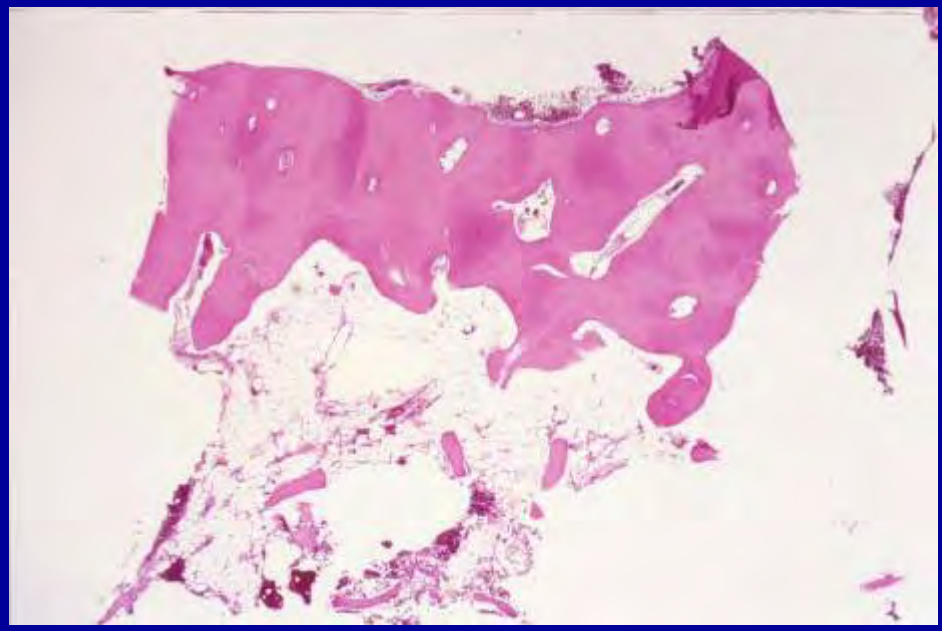
Torus palatinus

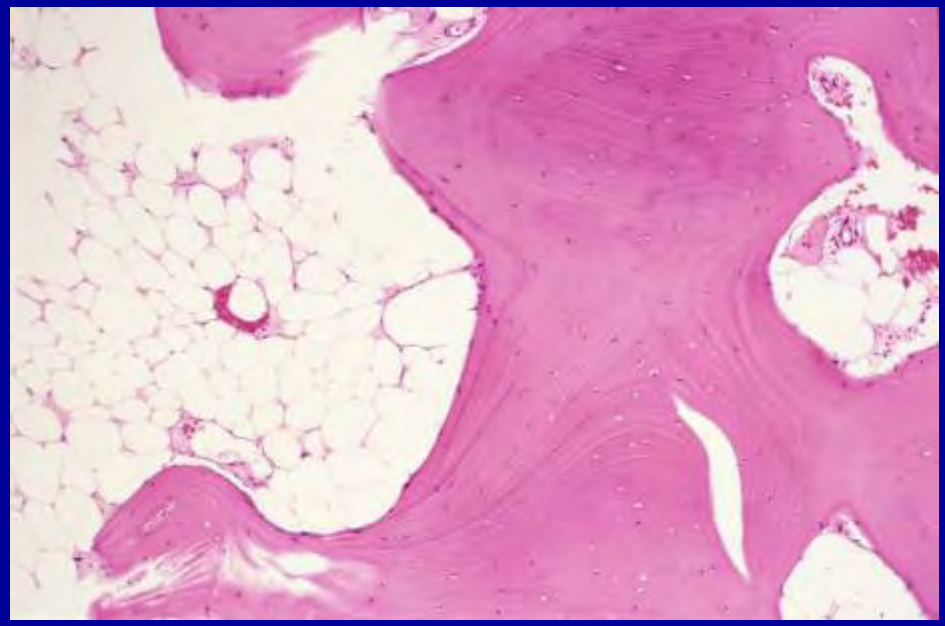
4. 20–35% in whites and blacks in USA
5. A higher prevalence in Asians and Eskimos
6. Females : males = 2 : 1

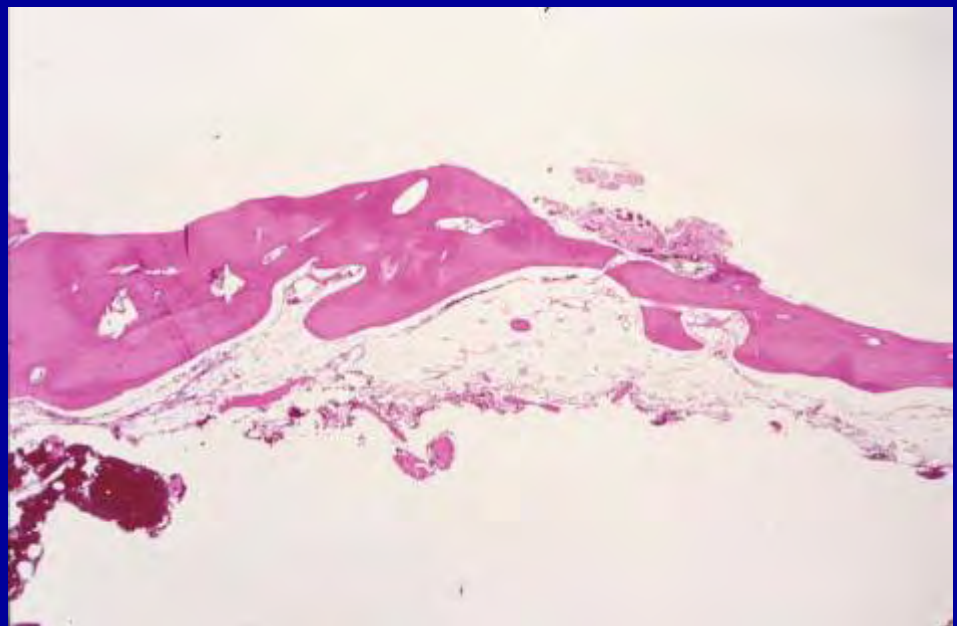
Torus palatinus

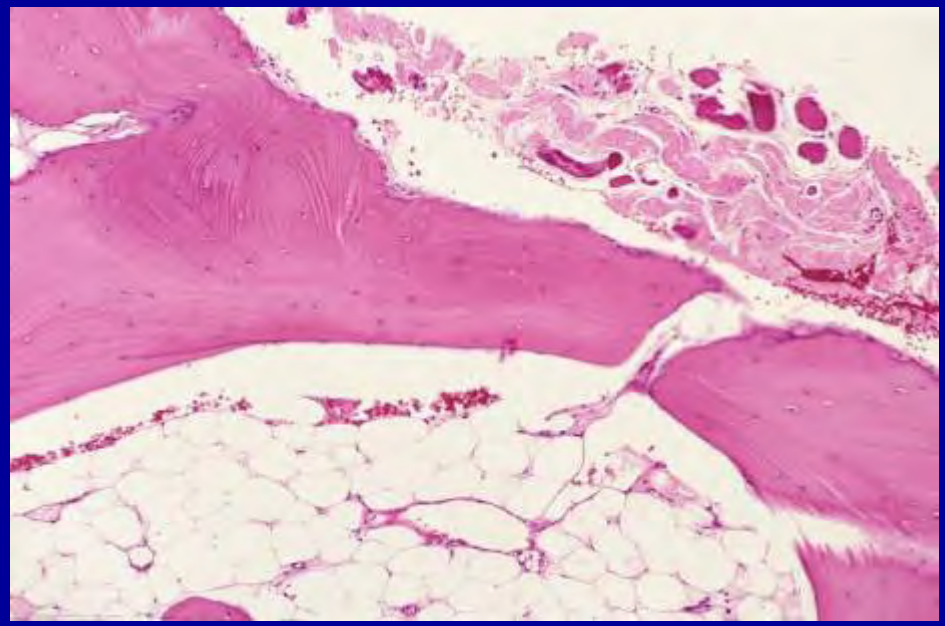


Torus palatinus









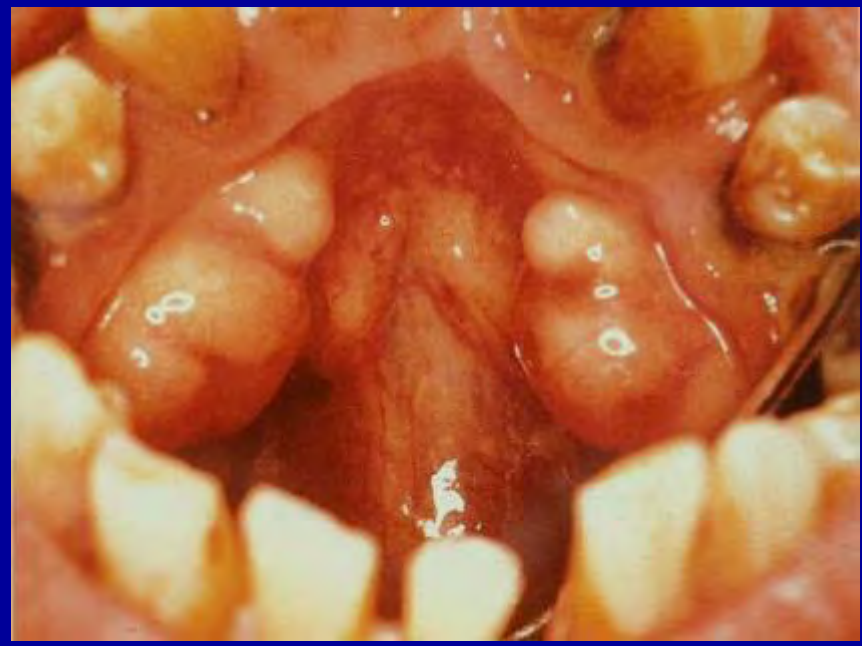
Torus mandibularis

1. Pathogenesis: genetic and environmental
2. A bony mass along the lingual aspect of the mandible in premolar region
3. Bilateral – $>$90%

Torus mandibularis

4. Not as common as the torus palatinus
5. More common in Asians and Inuits
6. Prevalence in USA: 7–10%
7. A slight male predilection

Torus mandibularis



Torus mandibularis

Eagle syndrome （Stylohyoid syndrome）

1. Due to elongation of stylohyoid process or mineralization of the stylohyoid ligament
2. Caused by impingement or compression of the adjacent sympathetic nerves or internal or external carotid arteries

Eagle syndrome

3. Vague facial pain, while swallowing, turning the head, or opening the mouth
4. Other symptoms including dysphagia, dysphonia, otalgia, headache, dizziness, and transient syncope

Eagle syndrome

5. Treated by local injection of corticosteroids or by partial surgical excision of the elongated styloid process or mineralized stylohyoid ligament

Eagle syndrome

Stylohyoid syndrome

Stafne defect (Stafne bone cyst)
(Lingual mandibular salivary gland depression)

1. Focal concavity of the cortical bone on the lingual surface of the mandible
2. Near the mandibular angle or sometimes at the anterior mandible
3. A radiolucency below the mandibular canal in the posterior mandible

Stafne defect

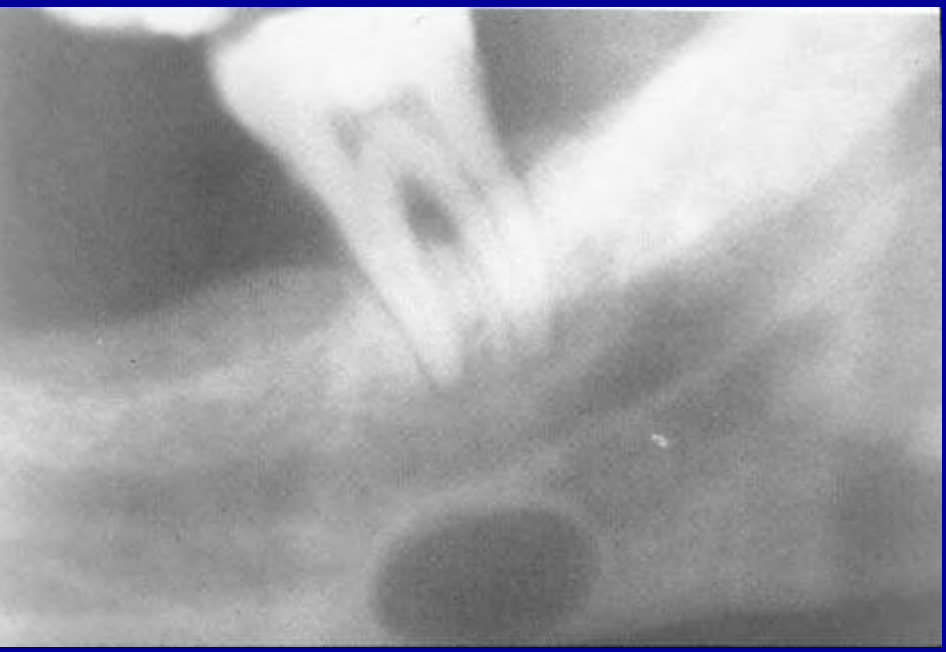
4. Defects containing salivary gland tissue, muscle, fibrous tissue, blood vessels, fat or lymphoid tissue
5. Posterior Stafne defects – in 0.3% of panoramic radiographs
6. A male predilection

   (80–90% of all cases)

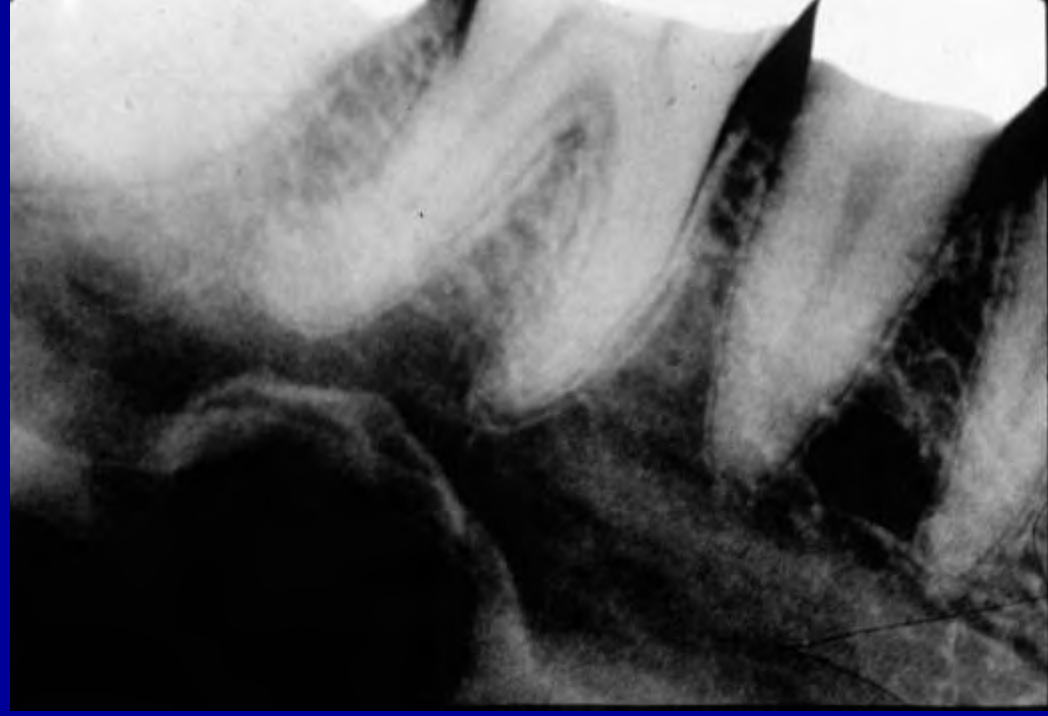
Stafne defect

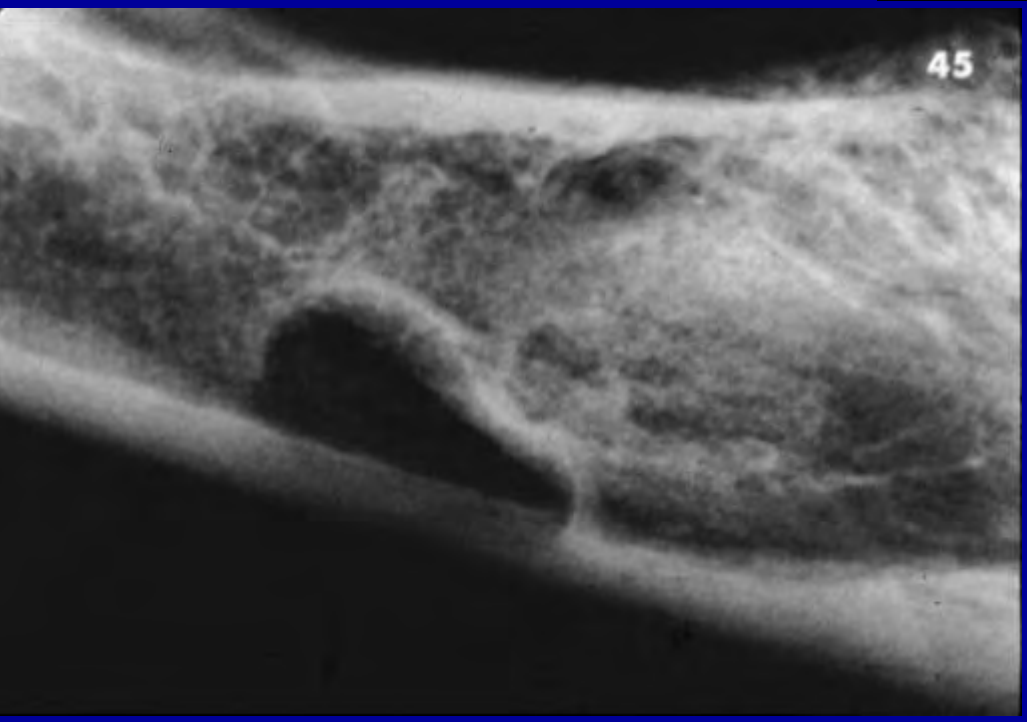
7. Occurs in middle-aged and older adults
8. CT scans show a well-defined concavity on the lingual surface of the mandible
9. Sialograms demonstrate salivary gland tissue in the defect.

Stafne defect

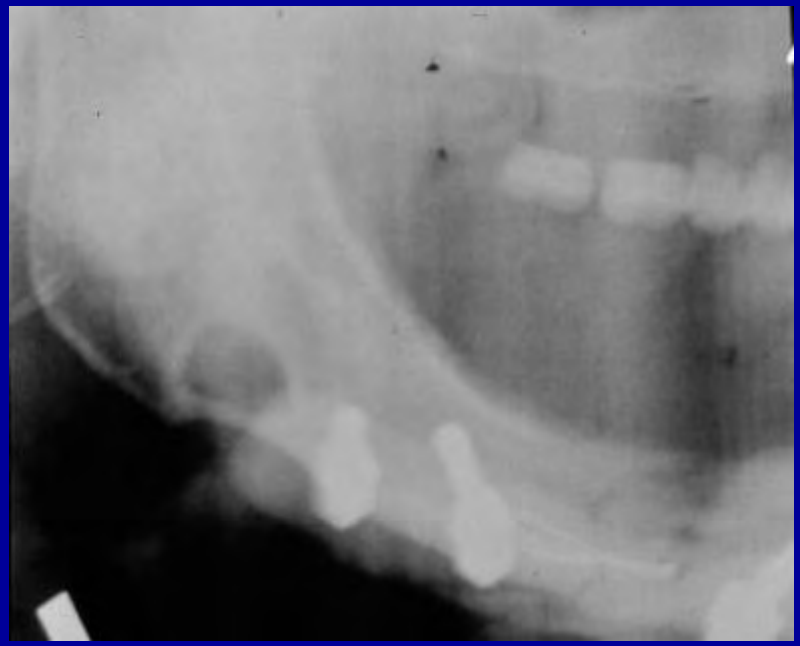


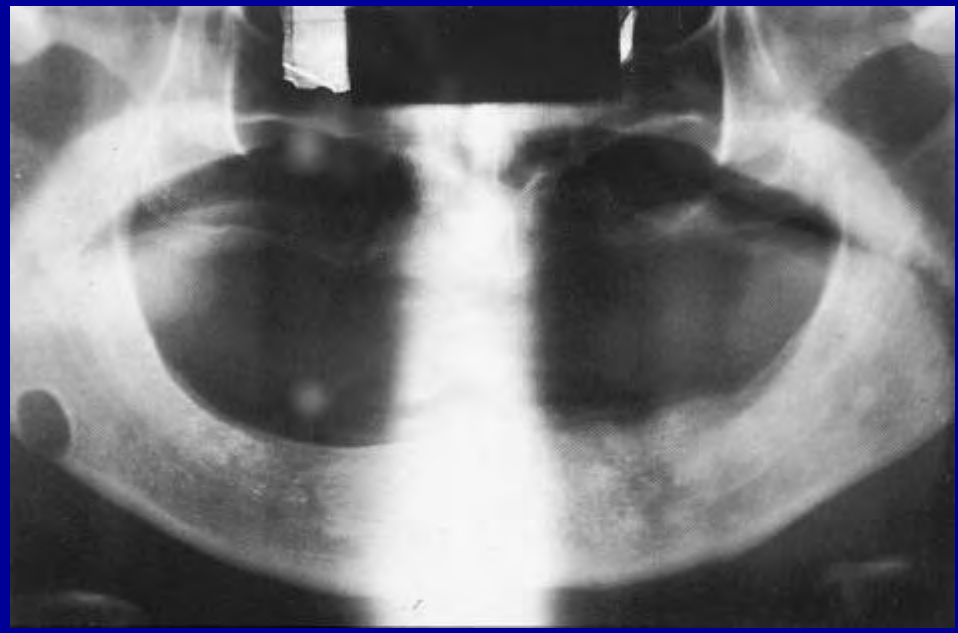
Stafne defect

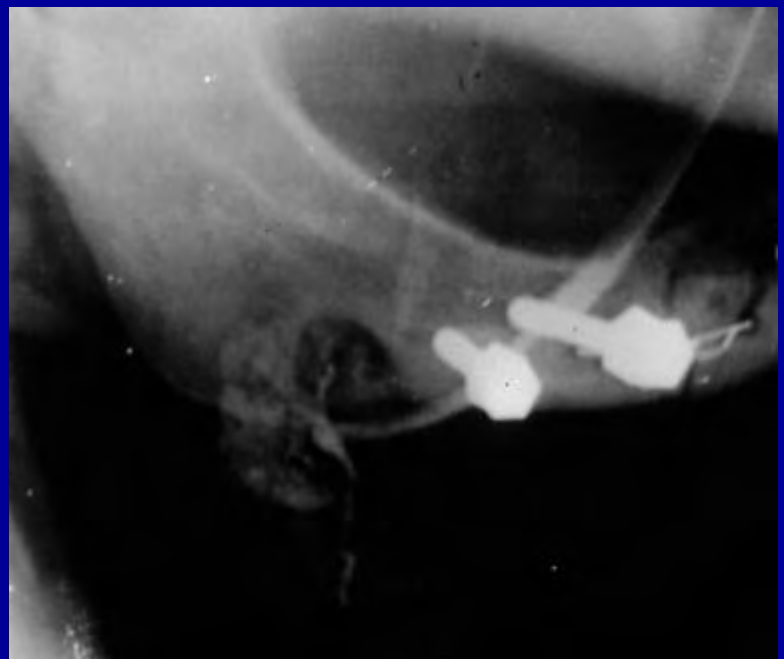


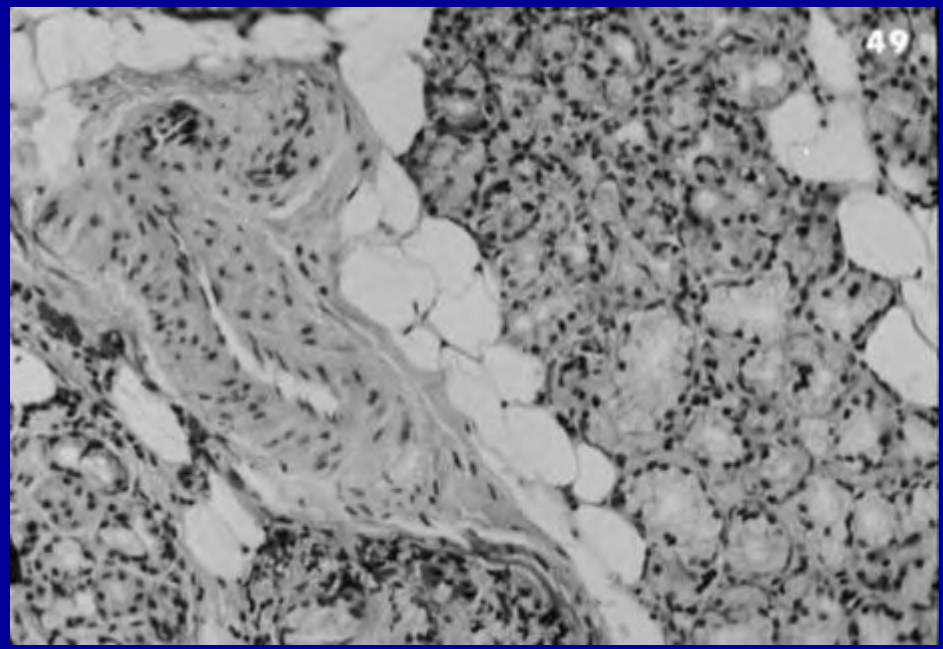


Stafne defect (Lingual mandibular salivary gland depression)





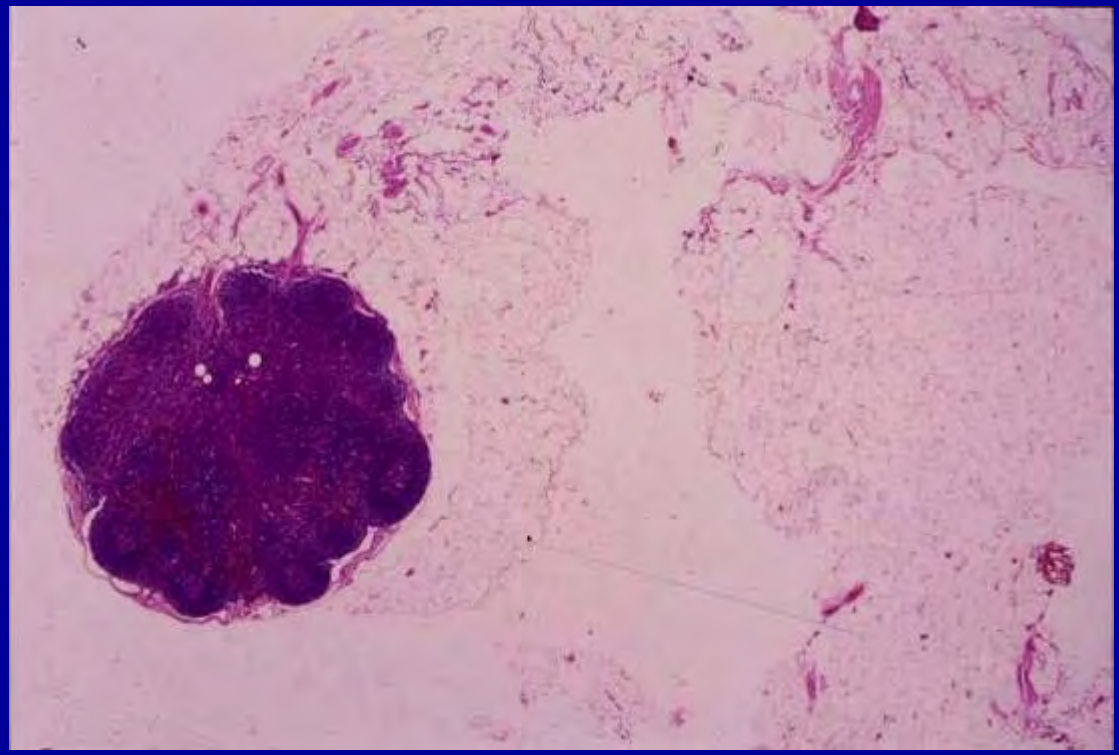


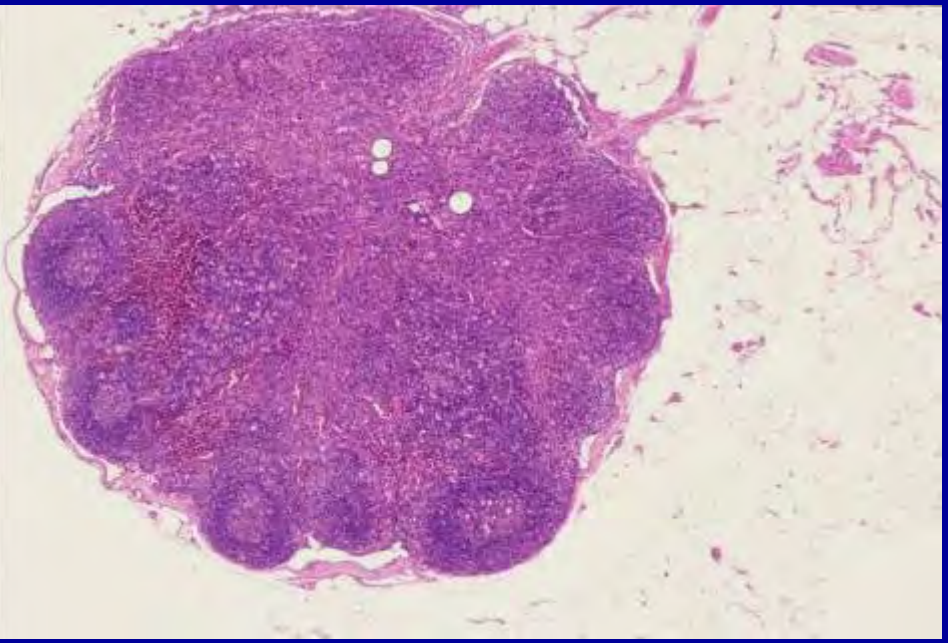


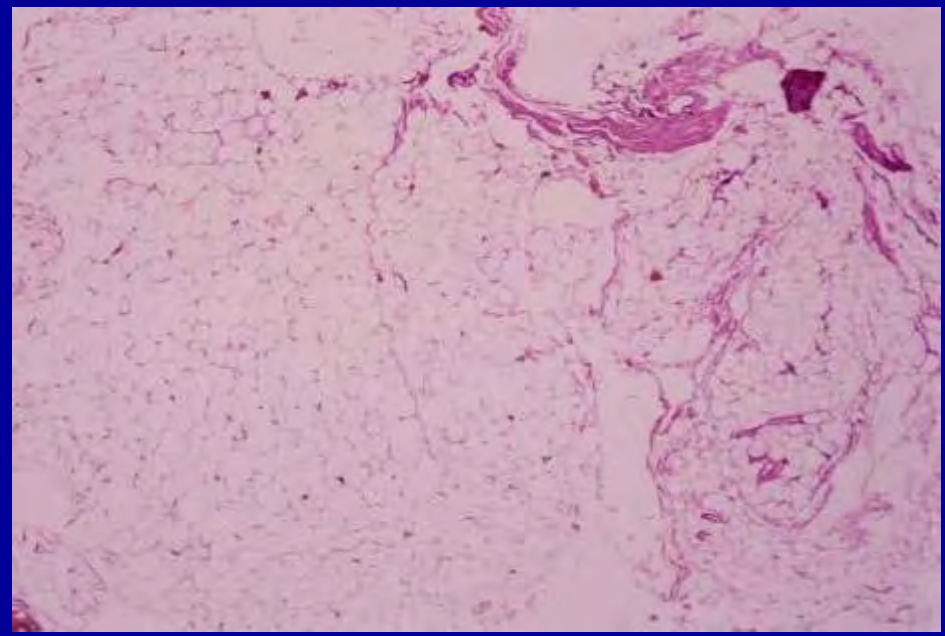
Stafne defect

Lingual mandibular salivary gland depression

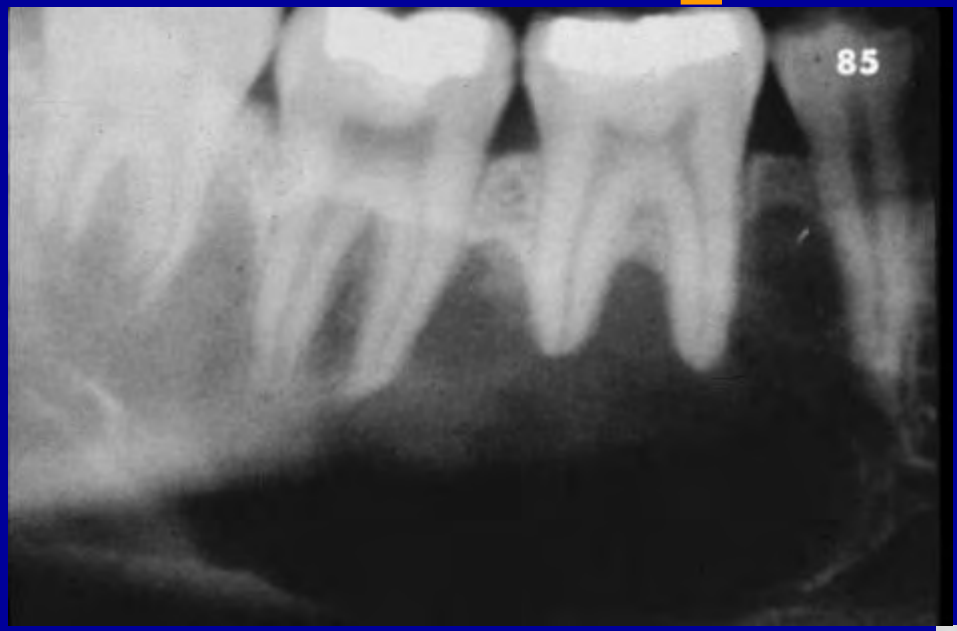
Stafne bone cyst

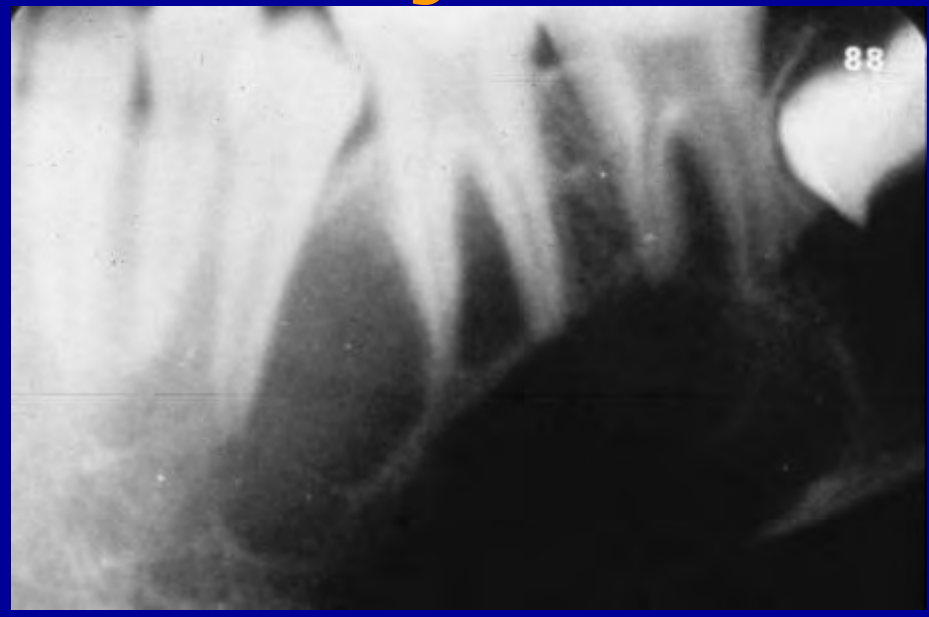


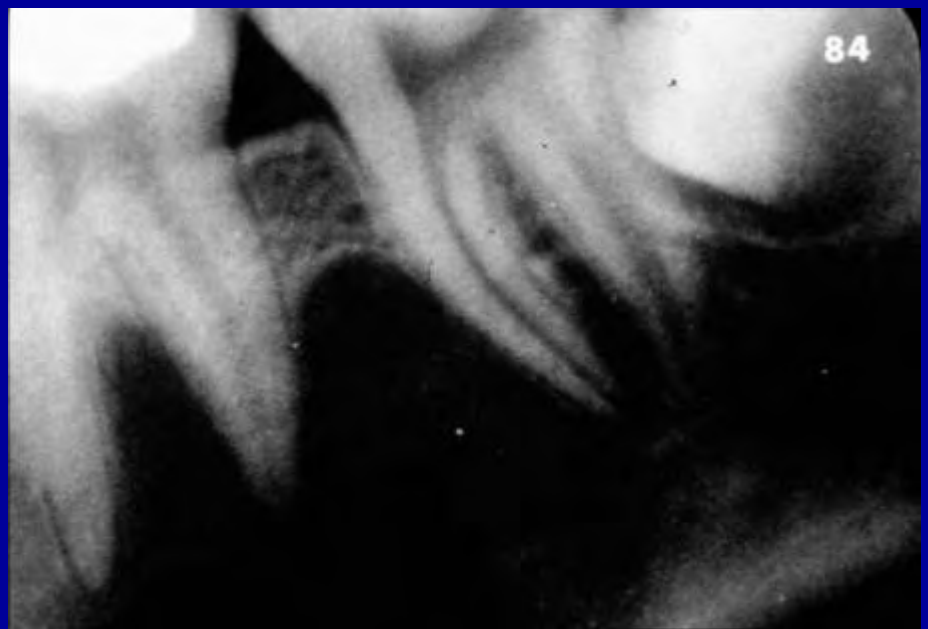




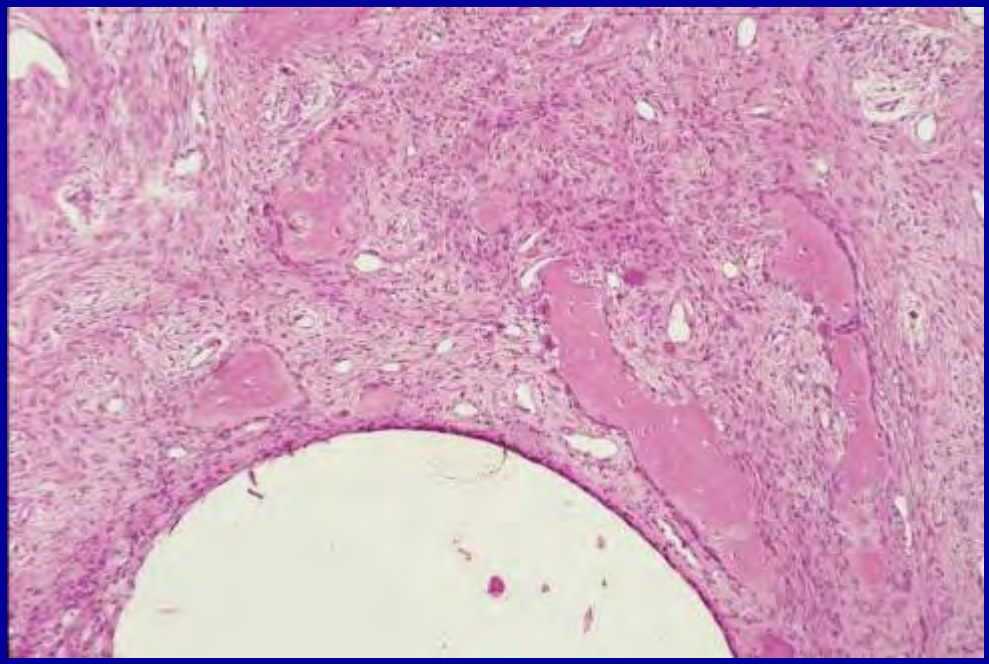
Simple bone cyst

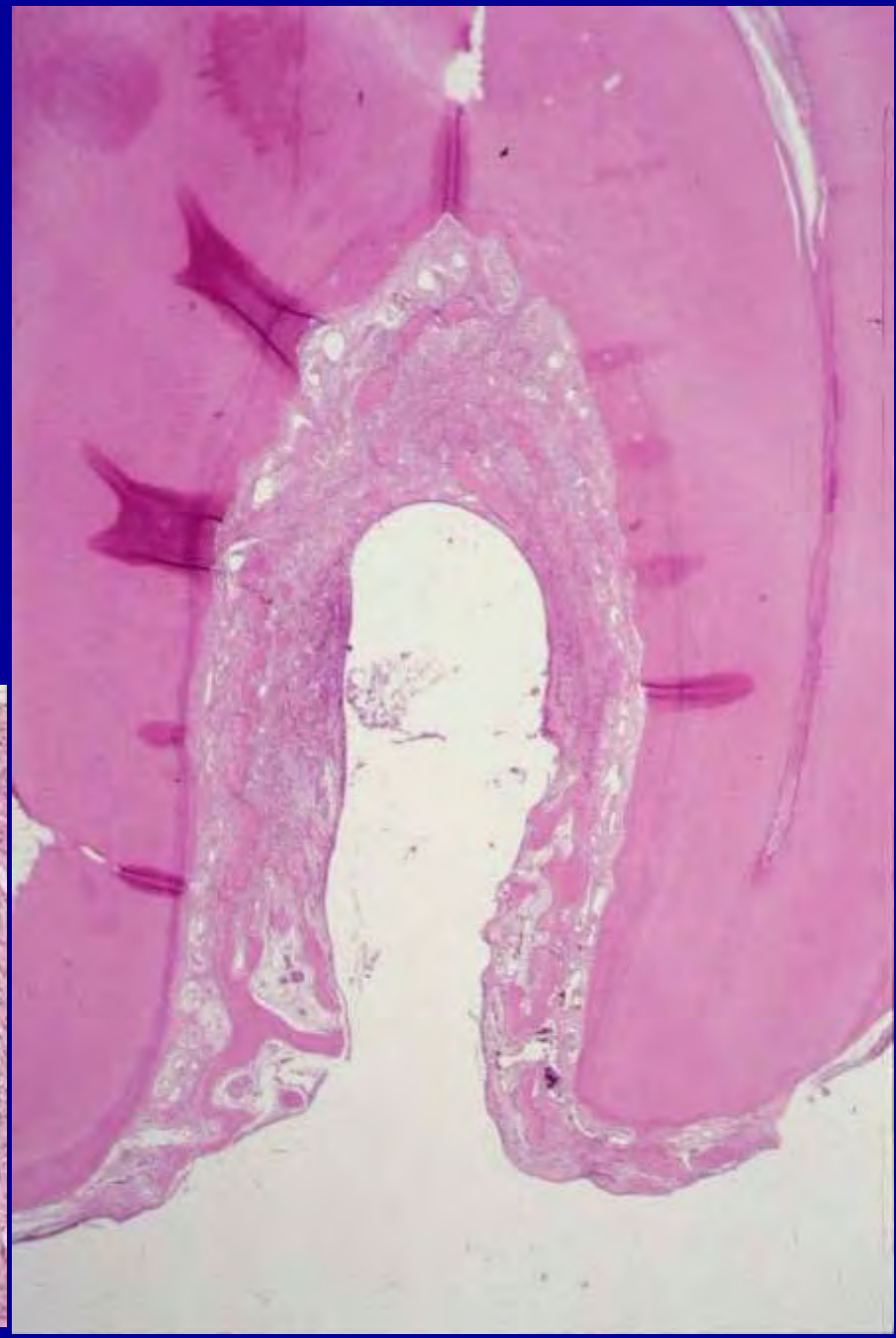




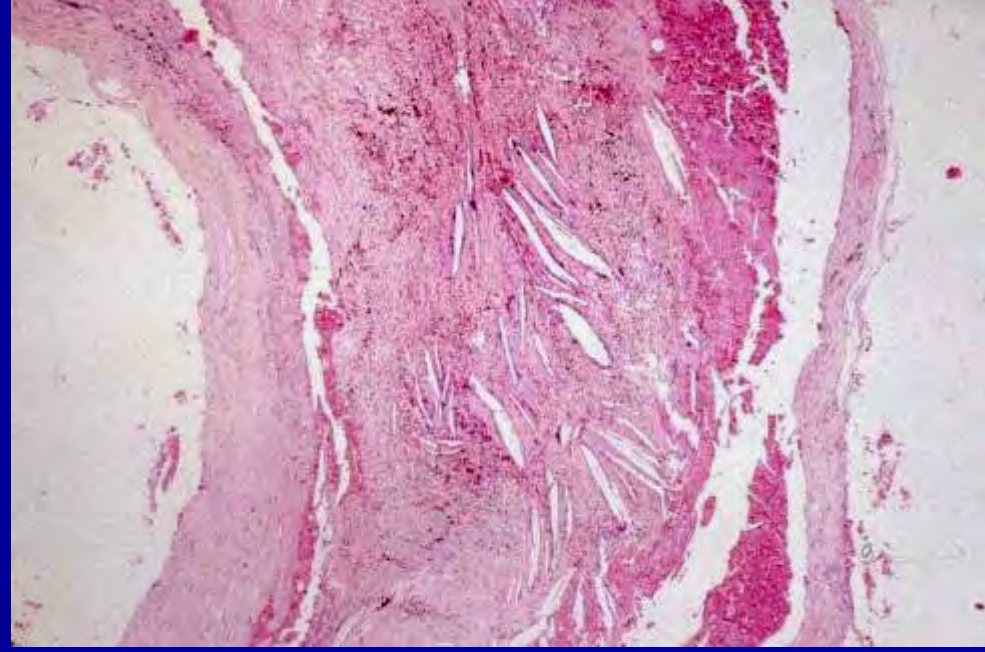


Simple bone cyst





Simple bone cyst



Hemihyperplasia (hemihypertrophy)

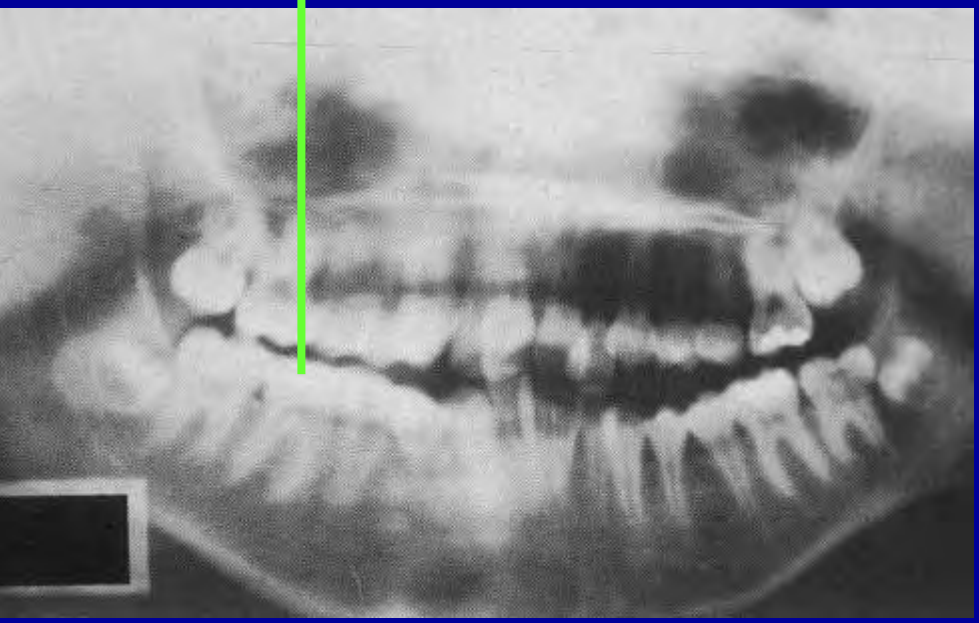
1. Hemifacial hyperplasia, unilateral macroglossia
2. An increase in thickness of the epithelium with hyperplasia of the underlying connective tissues or muscles

Hemihyperplasia

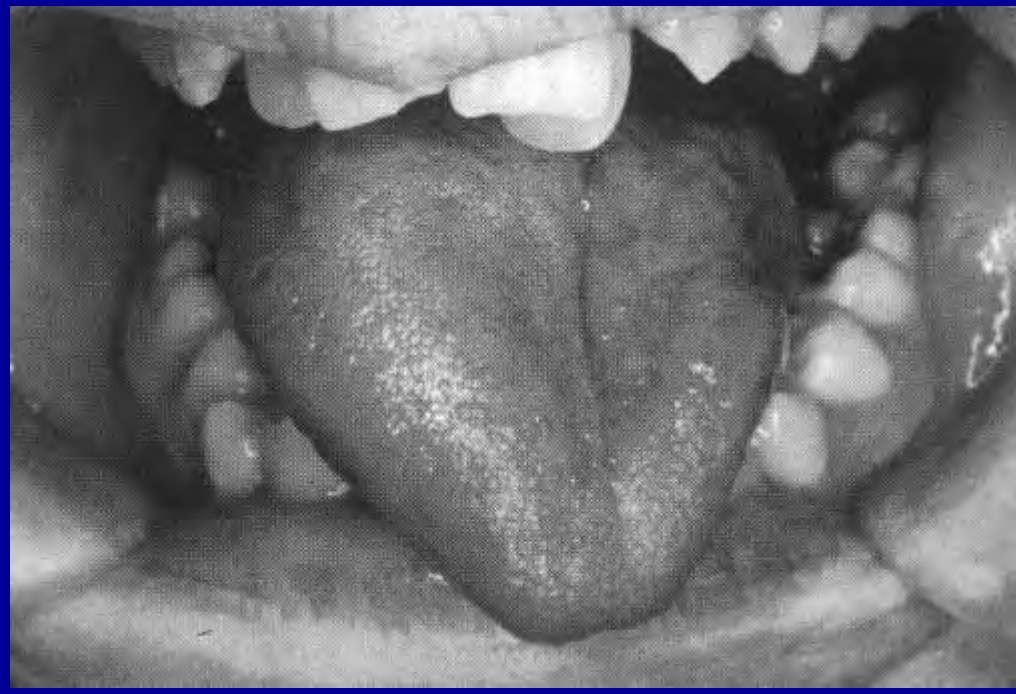
3. 20% of patients are mentally retarded.
4. An increased incidence of abdominal tumors – Wilms tumor, adrenal cortical carcinoma, and hepatoblastoma

Hemihyperplasia

Right side hemihyperplasia



Right side tongue hemihyperplasia



Progressive hemifacial atrophy

1. Atrophy of the skin and subcutaneous structures in a localize area of the face
2. Affects the dermatome of one or more branches of the trigeminal nerve

Progressive hemifacial atrophy

3. Females > males
4. Enophthalmos due to loss of periorbital fat
5. Local alopecia, unilateral atrophy of upper lip or tongue, unilateral mandibular hypoplasia

Hemifacial atrophy, right

Hemifacial atrophy

Crouzon syndrome (Craniofacial dysostosis)

1. Characterized by craniosynostosis, or premature closing of the cranial sutures
2. Autosomal dominant trait
3. Incidence: 1 of every 25,000 births

Crouzon syndrome

4. Brachycephaly (short head)
   Scaphocephaly (boat-shaped head)
   Trigonocephaly (triangle-shaped head)

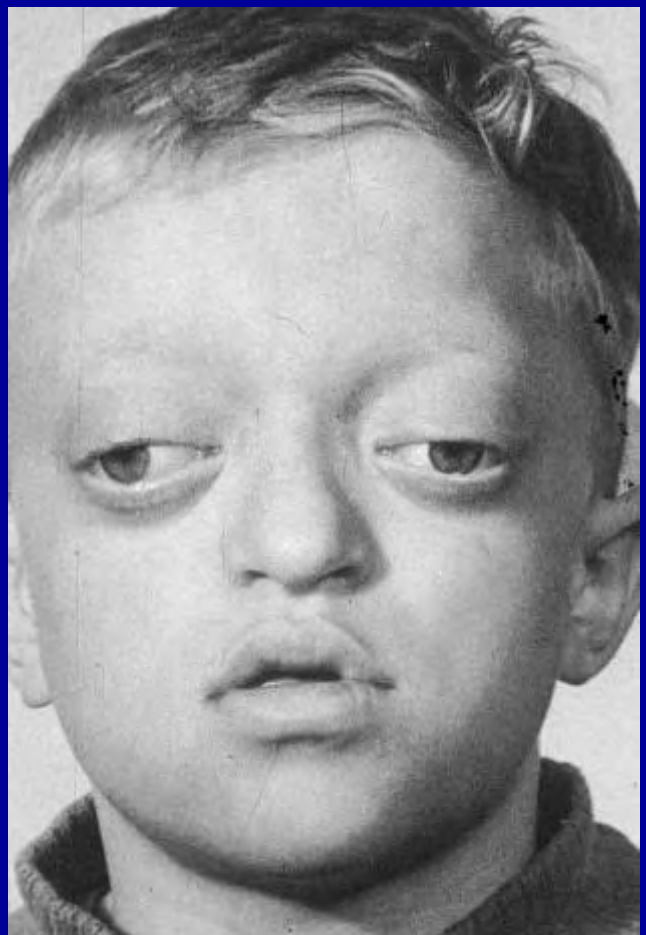
Crouzon syndrome

5. Shallow orbits resulting in ocular proptosis
6. Visual impairment, hearing deficit, headache (increased intracranial pressure)
7. Underdeveloped maxilla resulting in mid-face hypoplasia

Crouzon syndrome

mid-face hypoplasia + ocular proptosis

(眼球前凸)



Apert syndrome (acrocephalosyndactyly)

1. Characterized by craniosynostosis
2. Incidence: 1 of every 100,000 to 160,000 births
3. Autosomal dominant trait

Apert syndrome

4. Acrobrachycephaly (tower skull)
5. Ocular proptosis, hypertelorism, visual loss
6. Retruded mid-face, mandibular prognathism

Apert syndrome

Tower skull

+

mid-face hypoplasia

Apert syndrome

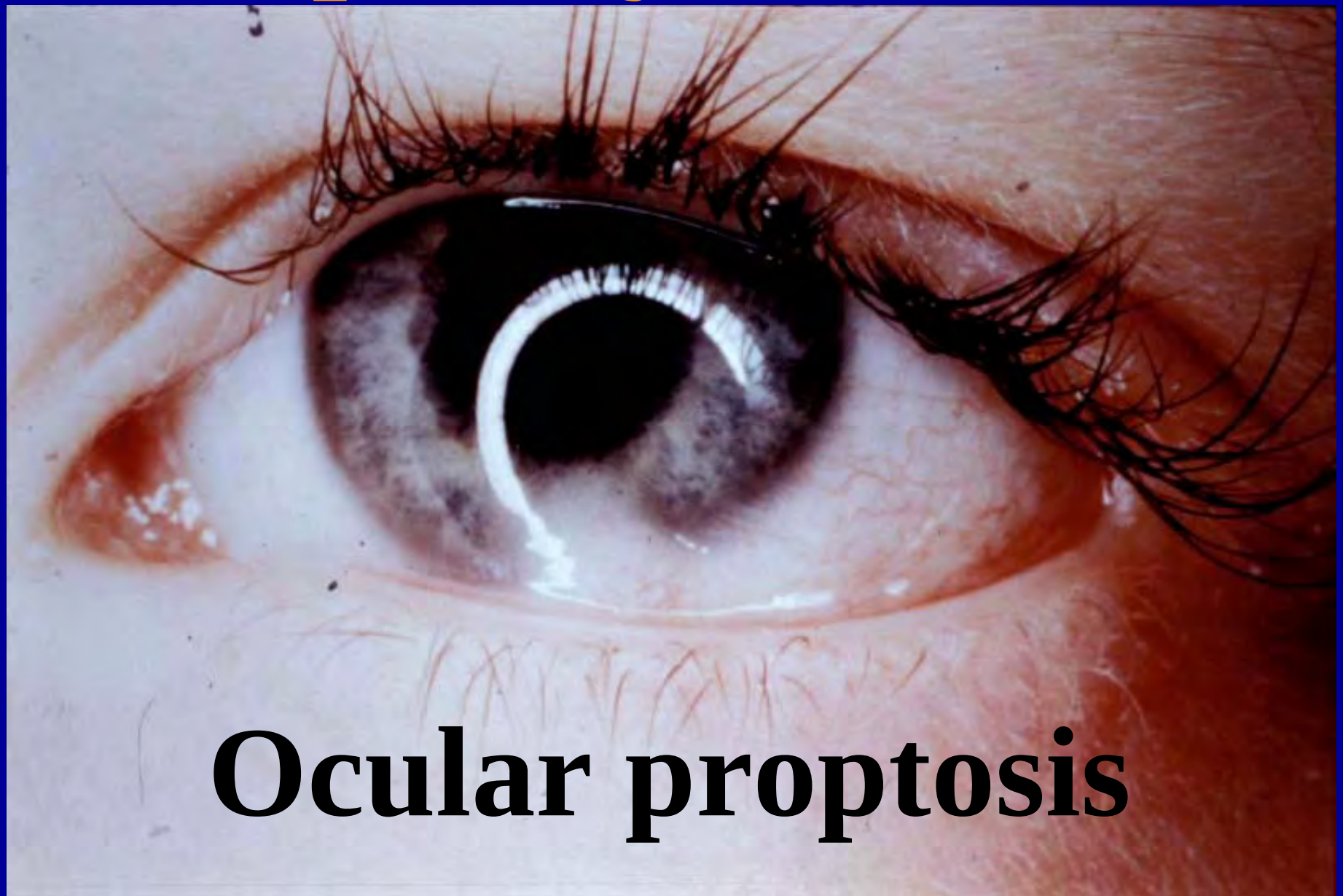
Mid-face hypoplasia

+

Ocular proptosis

Apert syndrome

Apert syndrome



Ocular proptosis

Hypertelorism

Apert syndrome

7. Open-mouth appearance
8. Syndactyly, synonychia
9. Mental retardation

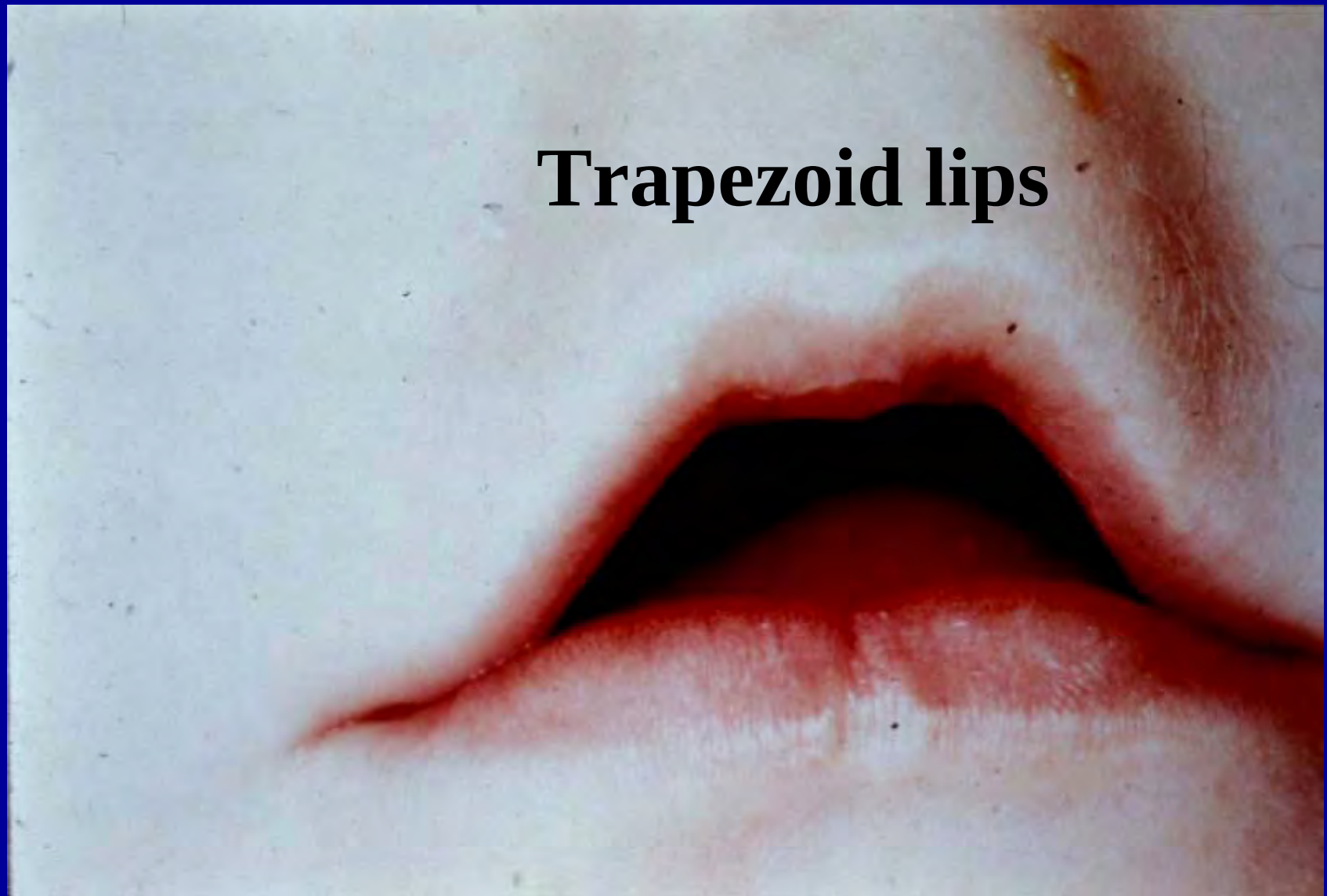
Apert syndrome

Syndactyly

Apert syndrome

10. Trapezoid-shaped lips
11. Cleft of the soft palate or bifid uvula – 3/4 patients

Apert syndrome



Apert syndrome

12. V-shaped arch,
    class III malocclusion,
    swelling of lateral hard palate
    (accumulation of glycosaminoglycans,
    especially hyaluronic acid)

Apert syndrome

Swelling of lateral hard palate

Apert syndrome

Visual loss

1. Chronic exposure of
   unprotected eyes
2. Increased intracranial pressure
3. Compression of the optic nerves

Mandibulofacial dysostosis

(Treacher Collins syndrome)

1. Defects of structures derived from the first and second branchial arches
2. Autosomal dominant trait

Mandibulofacial dysostosis

3. Occurs in 1 of every 10,000 births
4. 60% cases represent
   new mutations.
5. Associated with
   increased paternal age

Mandibulofacial dysostosis

Clinical and radiographic features:

1. Hypoplastic zygoma, narrow face with depressed cheeks
2. Downward-slanting palpebral fissures
3. 75% patients – a coloboma, or notch, occurs on the outer portion of the lower eyelid

Mandibulofacial dysostosis

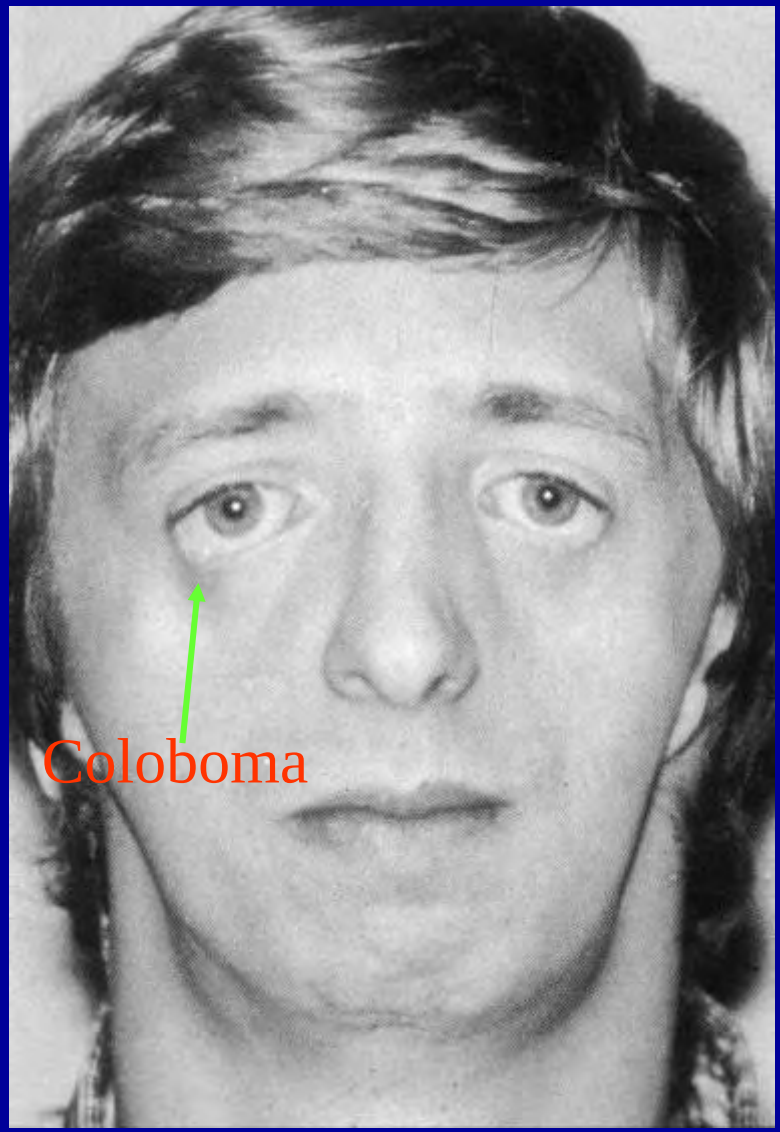
4. 50% patient – no eyelashes medial to the coloboma
5. Deformed or misplaced pinnae and extra ear tags
6. Ossicle defects or absence of the external auditory canal

Mandibulofacial dysostosis

Hypoplastic mandible

Downward slanting palpebral fissures

Ear deformity



Mandibulofacial dysostosis

7. Underdeveloped mandible
8. Hypoplasia of the condylar and coronoid processes
9. 1/3 cases – cleft palate

Mandibulofacial dysostosis

10. Hypoplastic or absent parotid gland
11. Hypoplasia of nasopharynx, oropharynx, and hypopharynx

Fissural cysts

Arise from epithelium entrapped along embryonal lines of fusion

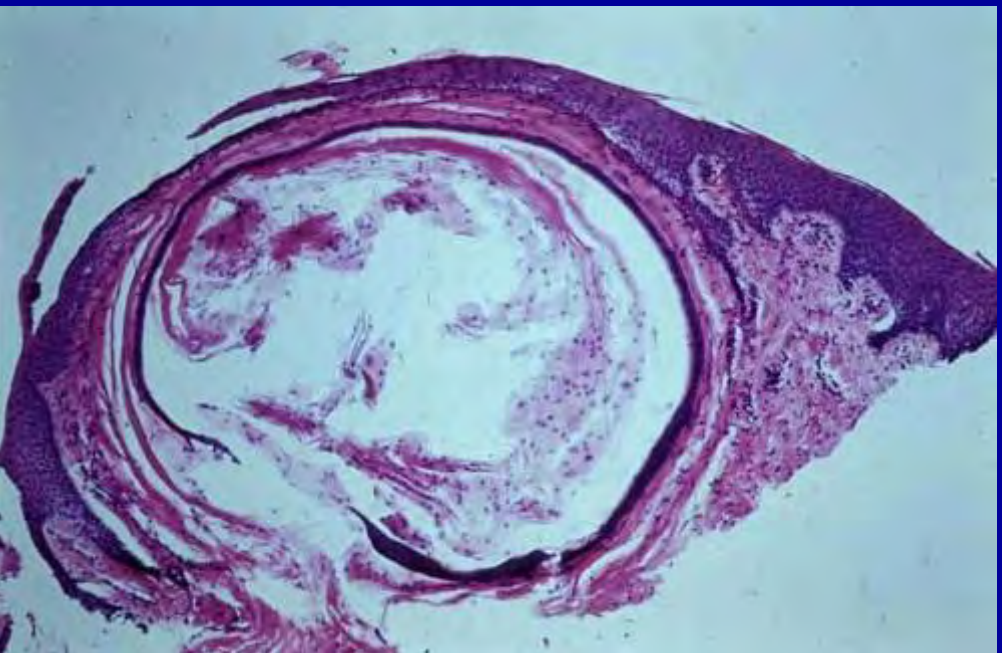
Palatal cysts of the newborn

1. Epstein pearls
2. Bohn’s nodules

Epstein's pearls

1. Occur along the
   median palatal raphe
2. Arise from epithelium
   entrapped along the
   line of fusion

Epstein's pearls



Bohn's nodules

1. Scattered over hard palate, often near the soft palate junction
2. Derived from the minor salivary glands

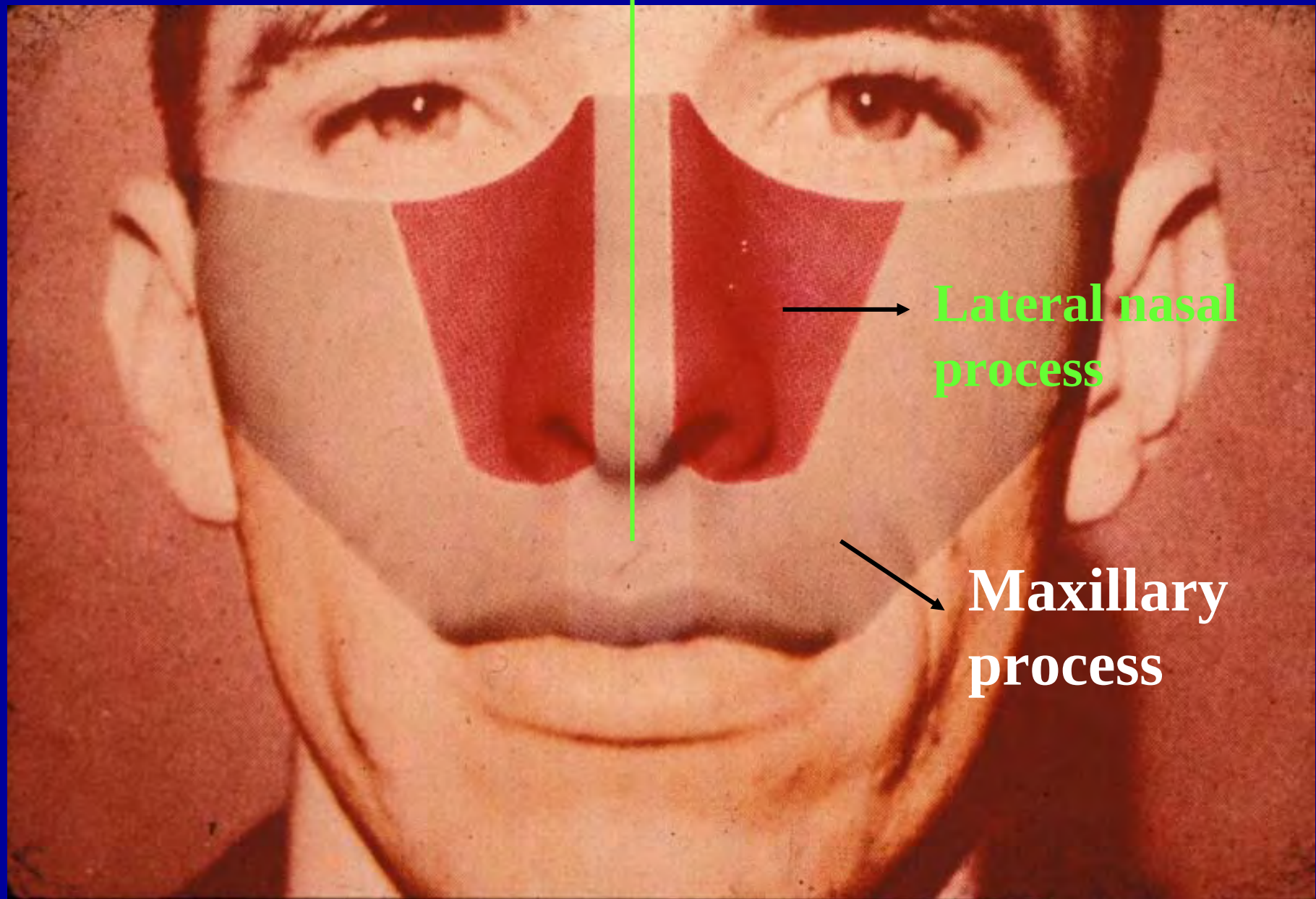
Palatal cysts of the newborn

1. Occur in 65-85% of neonates
2. 1-3 mm white or yellowish-white papules
3. Keratin-filled cysts lined by stratified squamous epithelium

Nasolabial cysts

1. Arising from epithelial remnants entrapped along the line of fusion of the maxillary, medial nasal, and lateral nasal processes

Medial nasal process



Nasolabial cysts

2. Developing from misplaced epithelium of the nasolacrimal duct

Nasolabial cysts

Clinical features:

1. A swelling of the upper lip lateral to the midline
2. A peak prevalence in the fourth and fifth decades of the life

Nasolabial cysts

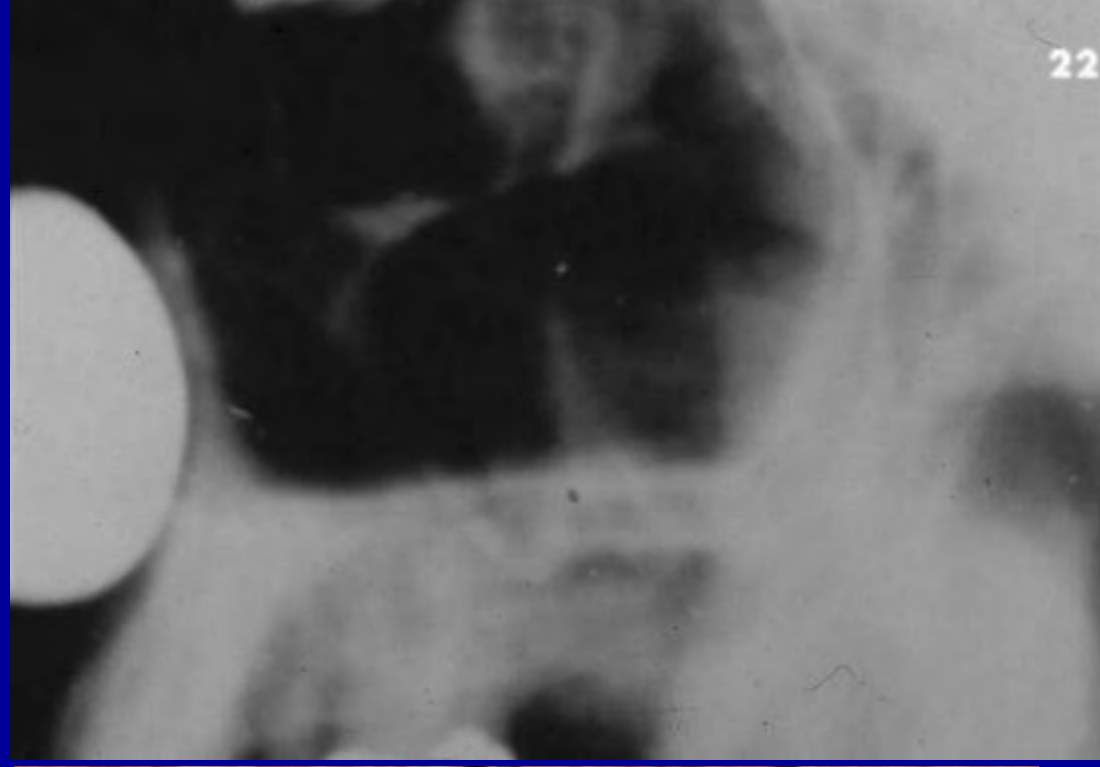
3. Females : males = 3 : 1
4. Soft tissue cyst –
   no radiographic changes

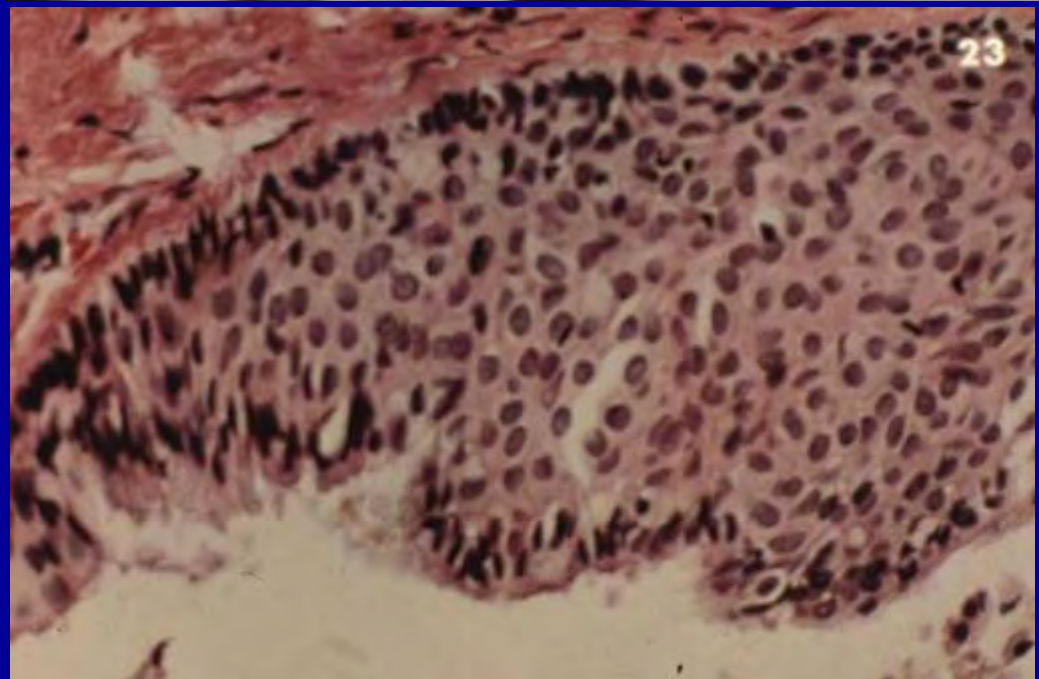
Nasolabial cyst

Histopathologic features:

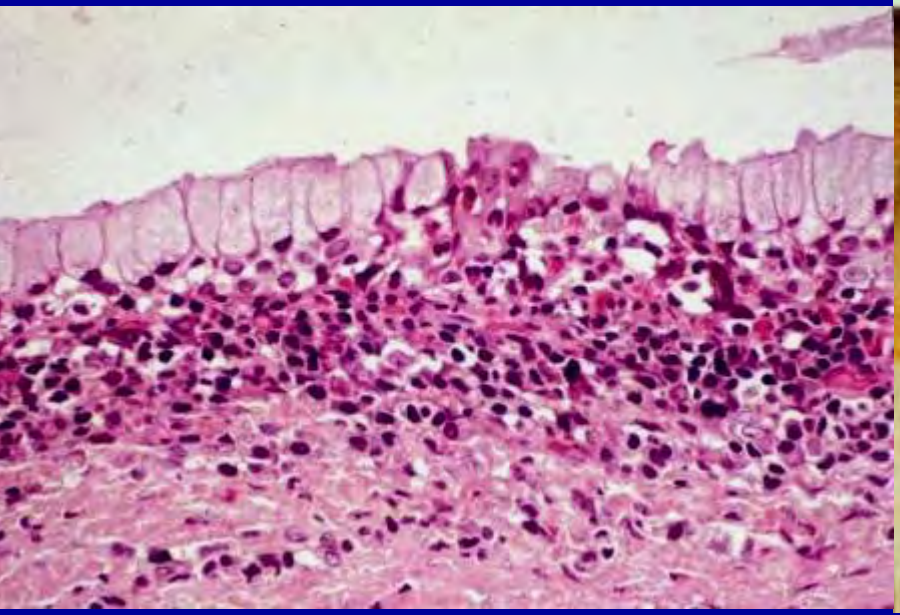
1. A cyst lined by pseudostratified ciliated columnar epithelium
2. Areas of cuboidal epithelium and squamous metaplasia are not unusual.

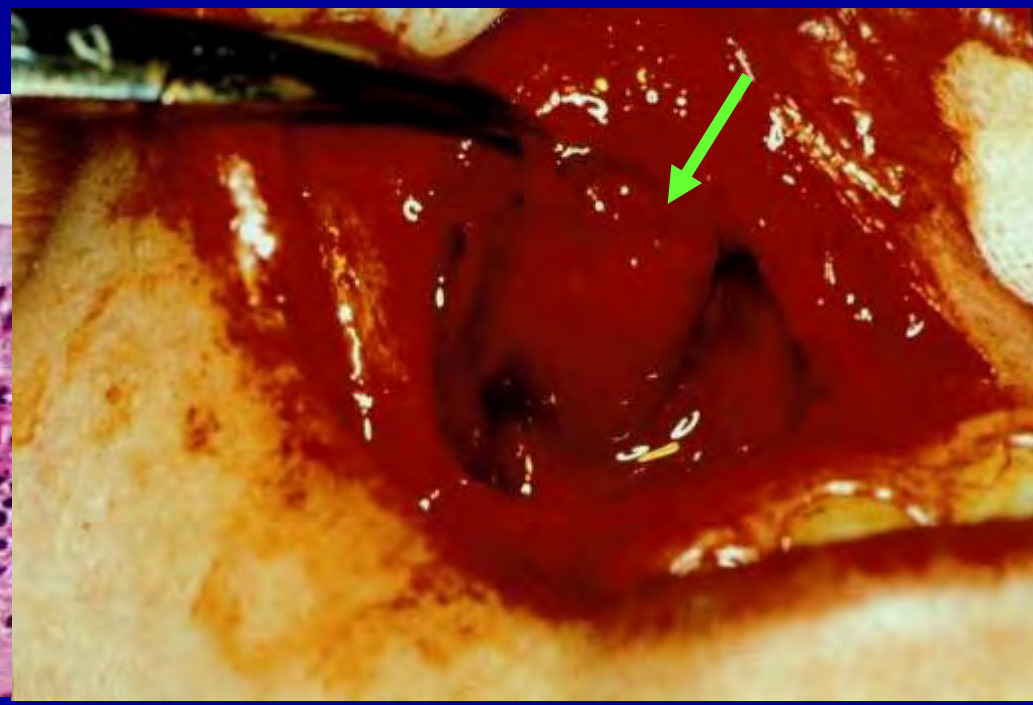
Nasolabial cyst





Nasolabial cyst





Globulomaxillary cyst

1. Arising from epithelium entrapped during fusion of the globular portion of the medial nasal process with the maxillary process
2. Current theory – odontogenic origin

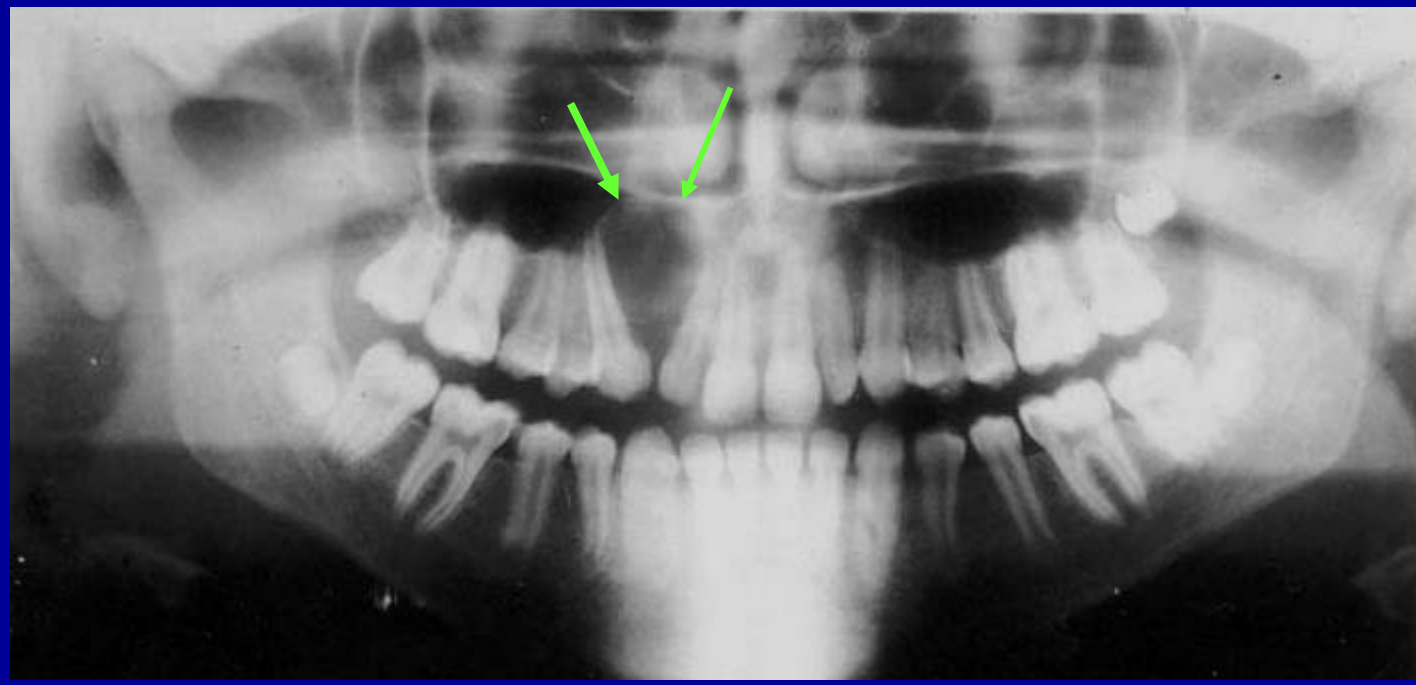
Globulomaxillary cyst

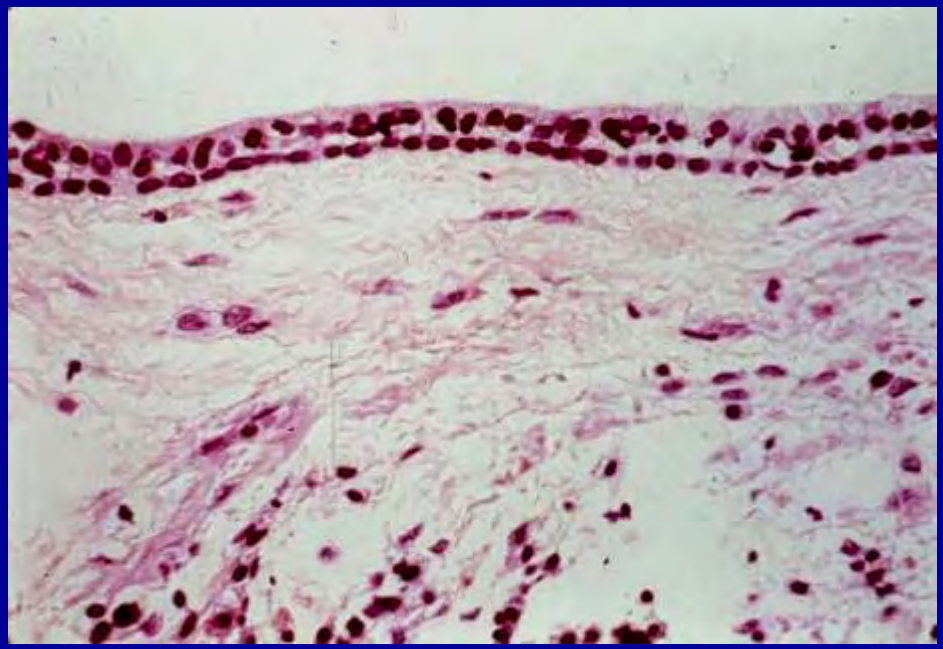
1. Between the maxillary lateral incisor and cuspid teeth
2. An inverted pear-shaped radiolucency

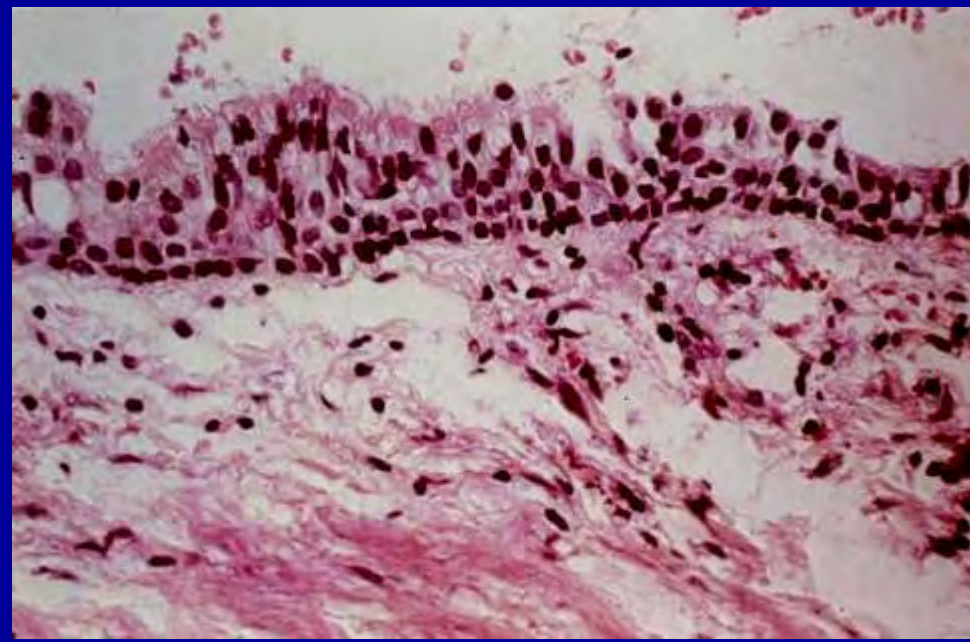
Globulomaxillary cyst

Lined by inflamed stratified squamous epithelium or by pseudostratified ciliated columnar epithelium

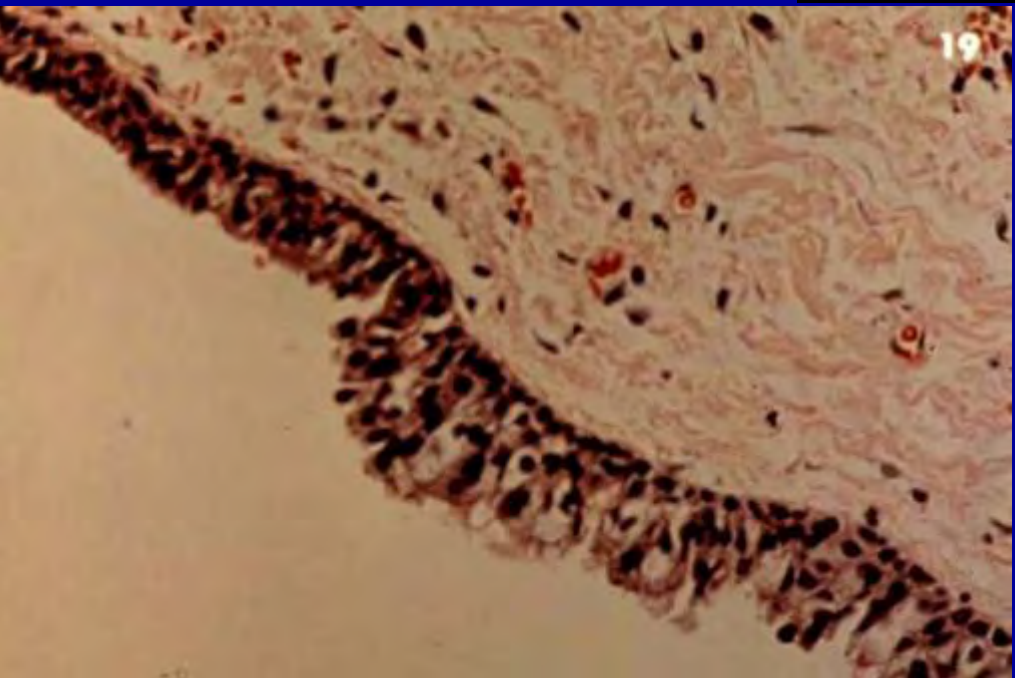
Globulo-maxillary cyst



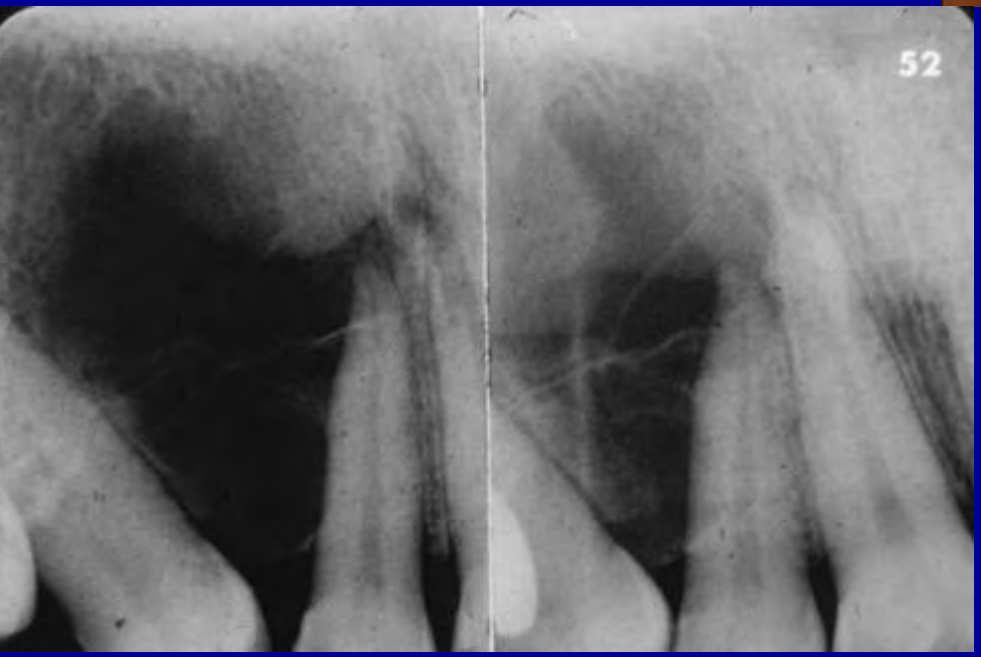


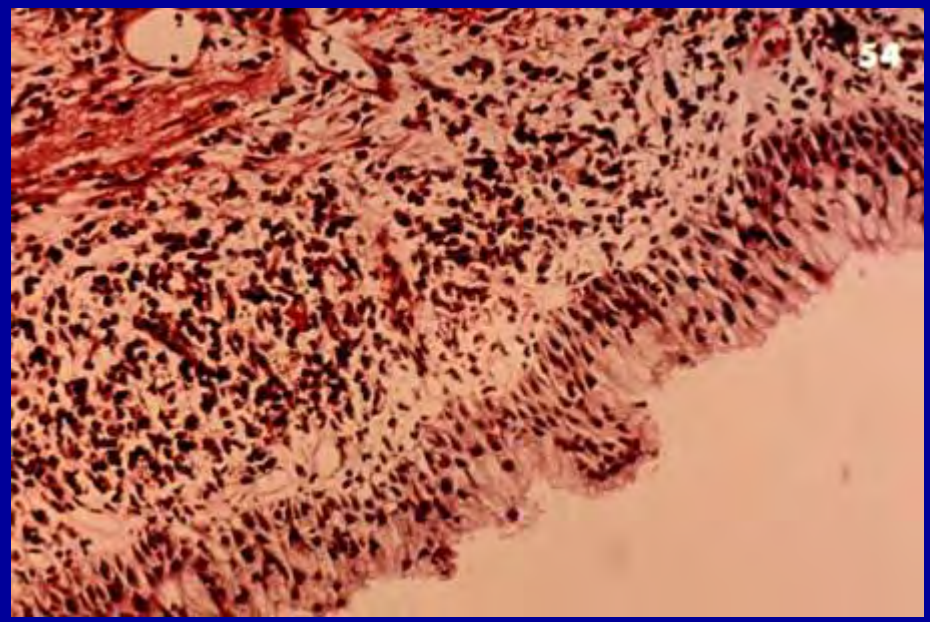


Globulomaxillary cyst



Globulo -maxillary cyst





Nasopalatine duct cyst

1. The most common non-odontogenic cyst of the oral cavity
2. Occurs in about 1% of the population
3. Arises from remnants of the nasopalatine duct

Nasopalatine duct cyst

Clinical features:

1. Common in the fourth to sixth decades of life
2. A male predilection
3. Swelling of the anterior palate, drainage, and pain

Nasopalatine duct cyst

4. A well-defined round radiolucency in or near the midline of the anterior maxilla between and apical to the central incisor teeth
5. >6 mm in diameter (Incisive foramen is often <6 mm in diameter.)

Cysts of the incisive papilla

A cyst in the soft tissue of the incisive papilla

Nasopalatine duct cyst

Histopathologic features:

1. Lining epithelium –

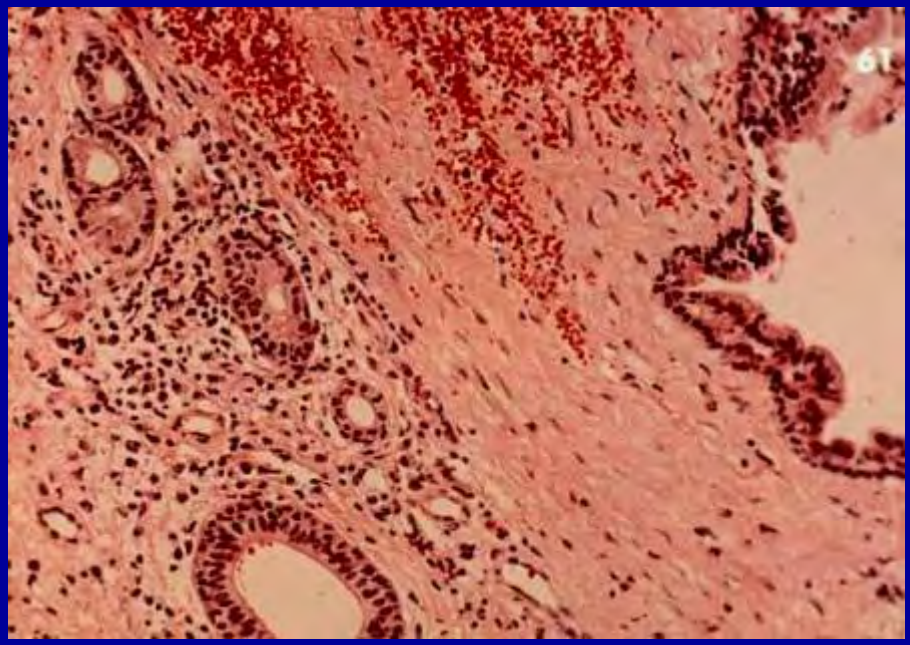
   stratified squamous epithelium,
   pseudostratified columnar epithelium,
   simple columnar epithelium,
   simple cuboidal epithelium

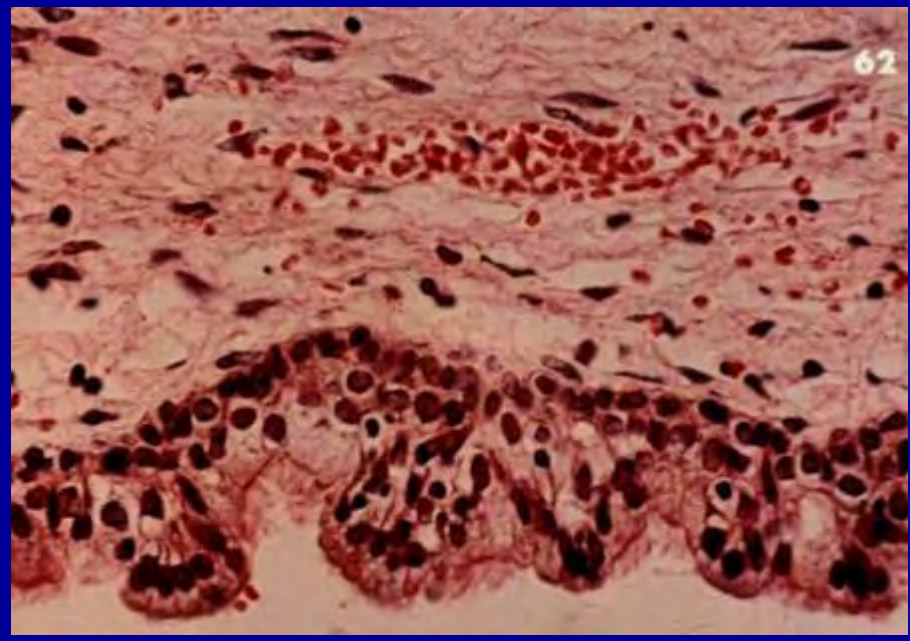
Nasopalatine duct cyst

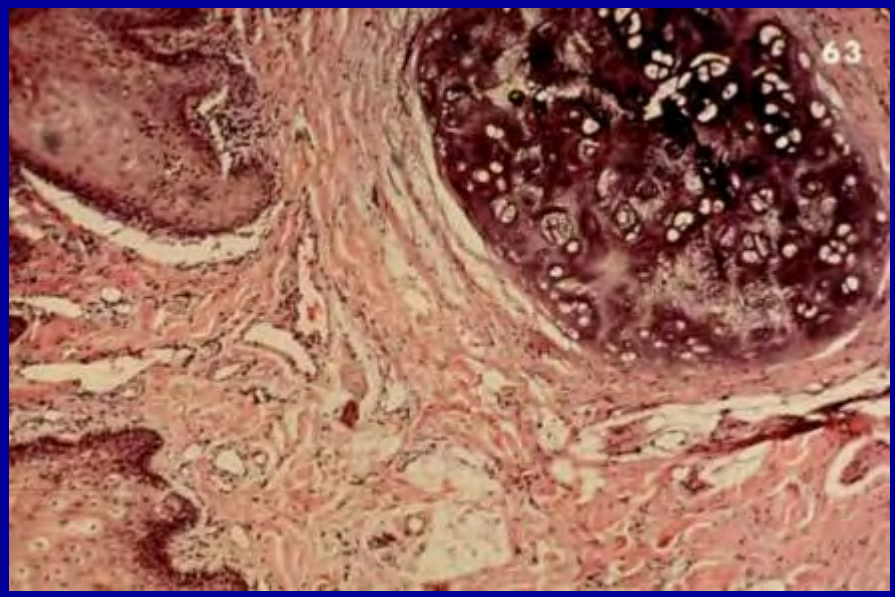
2. Cyst wall – contains nerves, arteries, veins, mucous glands, hyaline cartilage

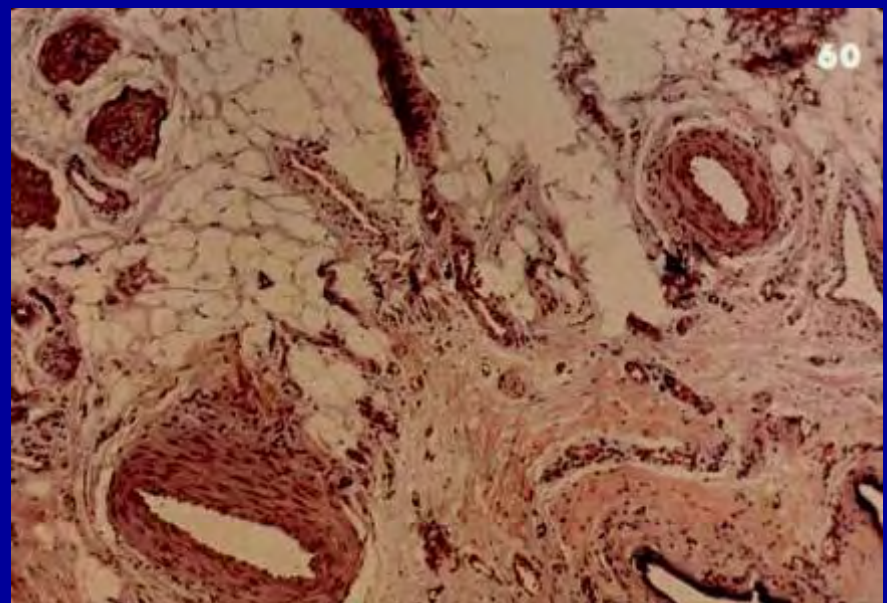
Nasopalatine duct cyst

Nasopalatine duct cyst

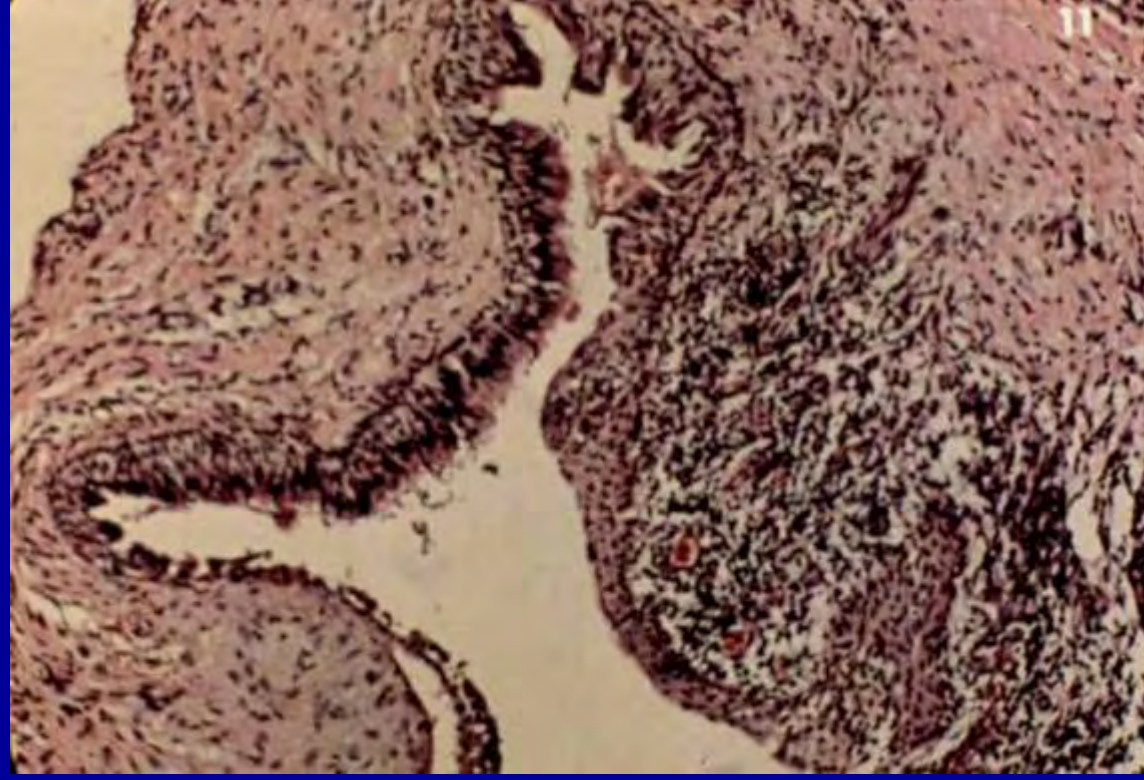


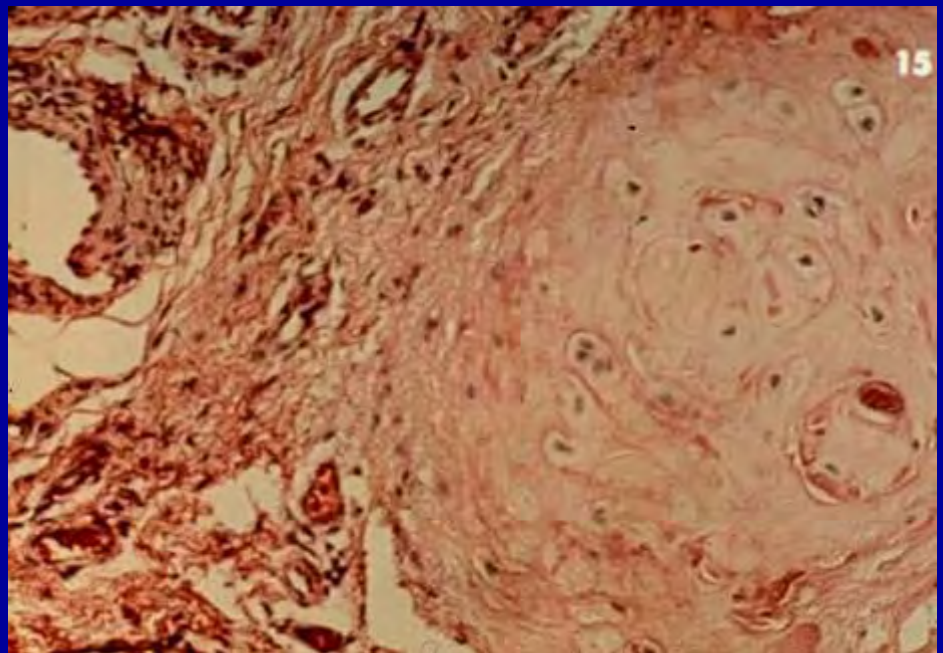


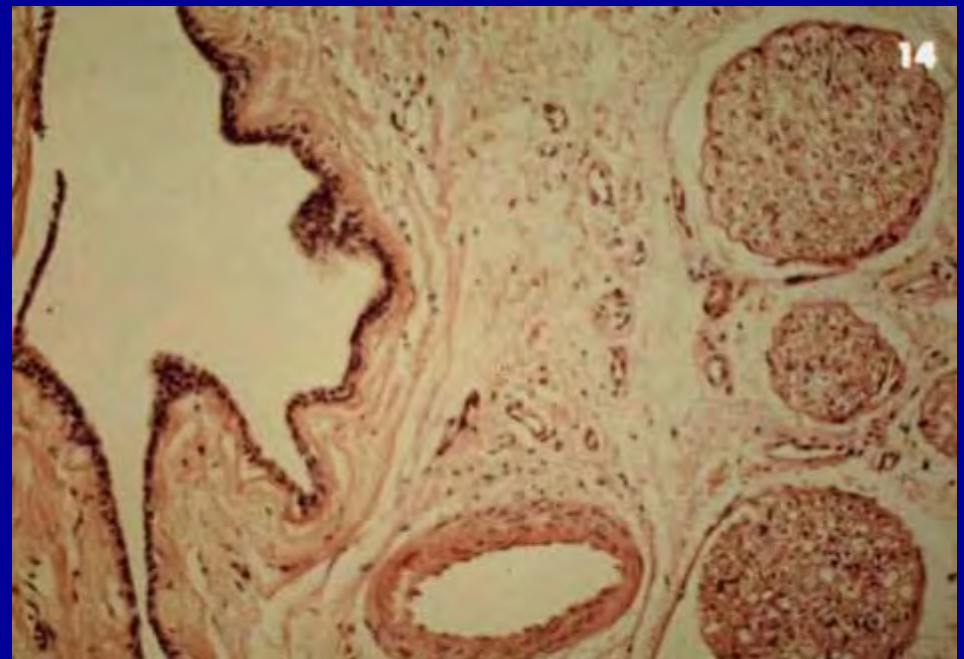




Nasopalatine duct cyst

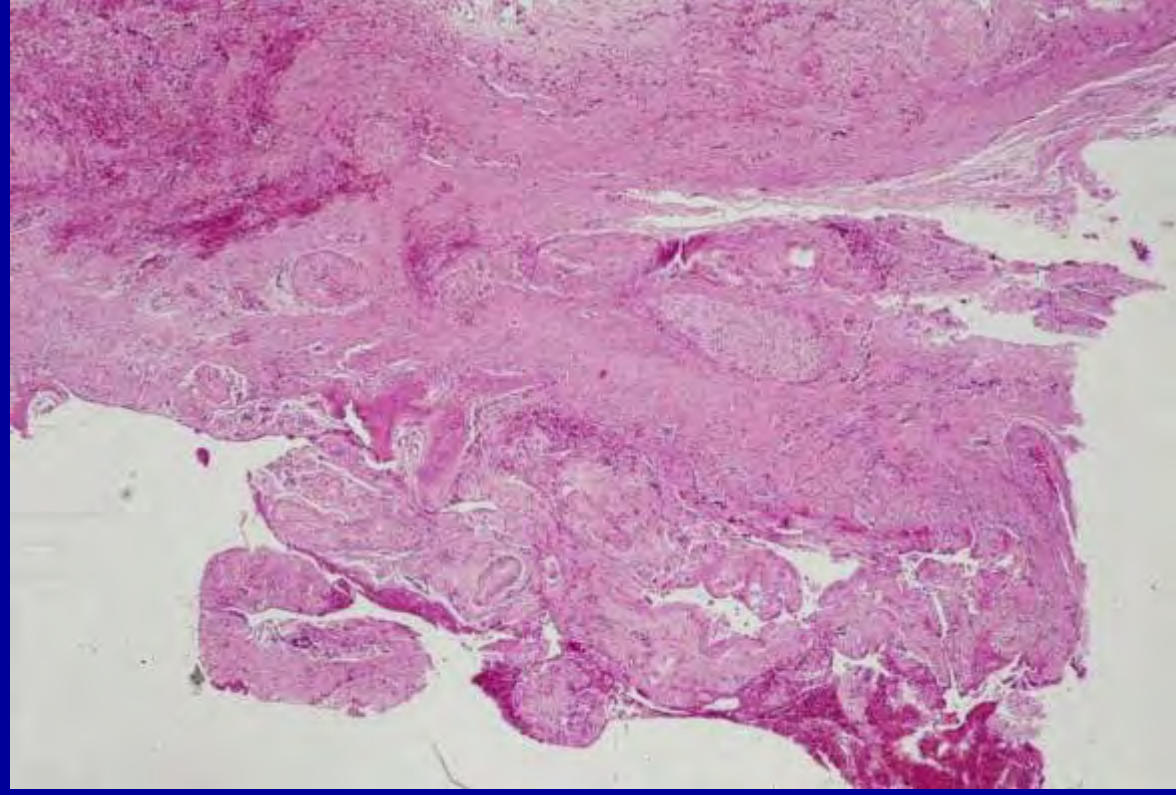


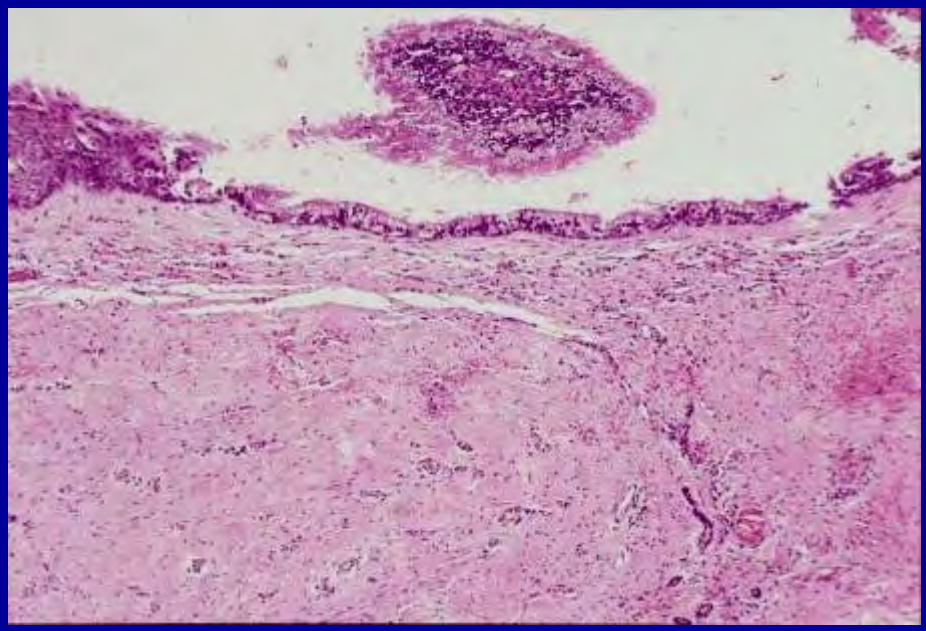


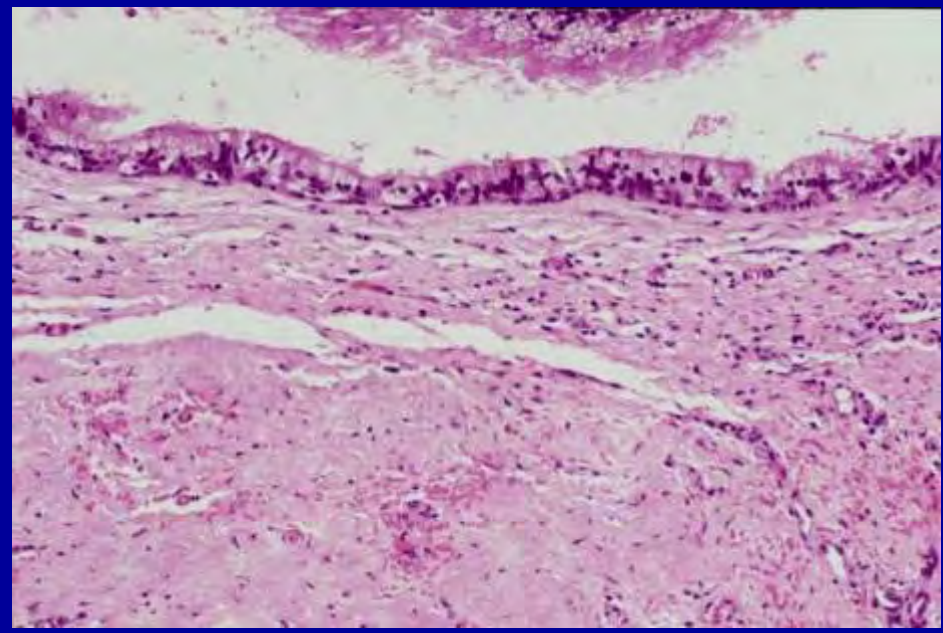


Nasopalatine duct cyst

Nasopalatine duct cyst







Median palatal cyst

Arising from epithelium entrapped along the embryonic line of fusion of the lateral palatal shelves of the maxilla

Median palatal cyst

Clinical features:

1. A fluctuant swelling of the midline of the hard palate posterior to the palatine papilla

Median palatal cyst

2. Occurs in young adults
3. A well-defined radiolucency in the midline of the hard palate

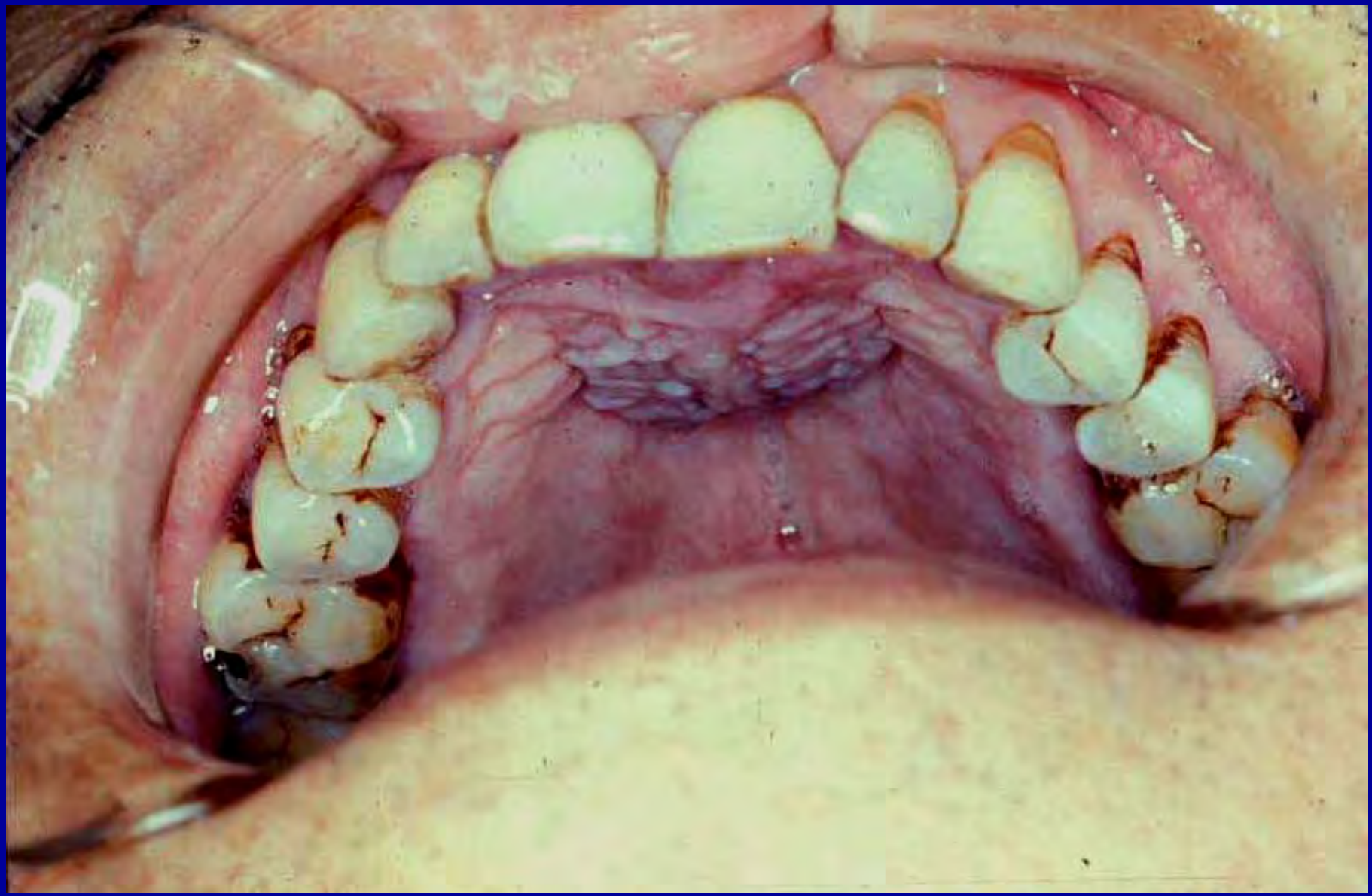
Median palatal cyst

Histopathologic features:

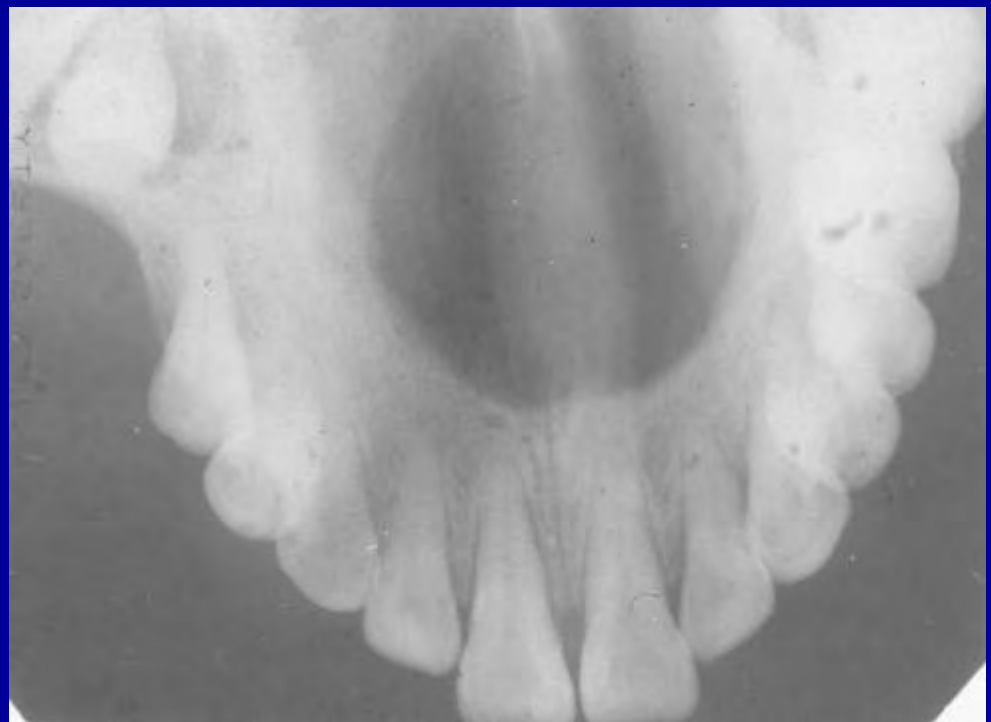
1. Lined by stratified squamous epithelium or pseudostratified ciliated columnar epithelium
2. Chronic inflammation in the cyst wall

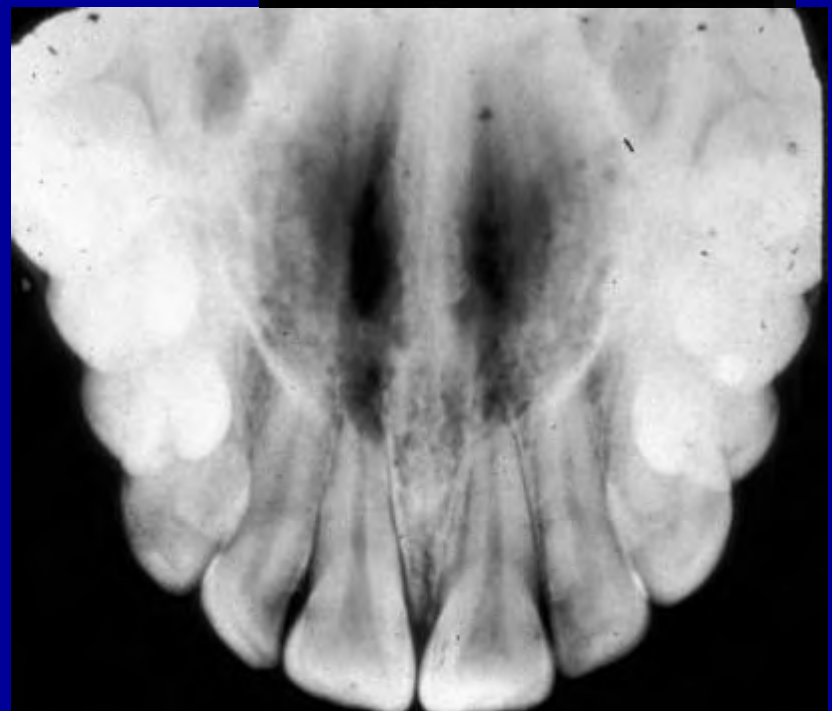
Median palatal cyst

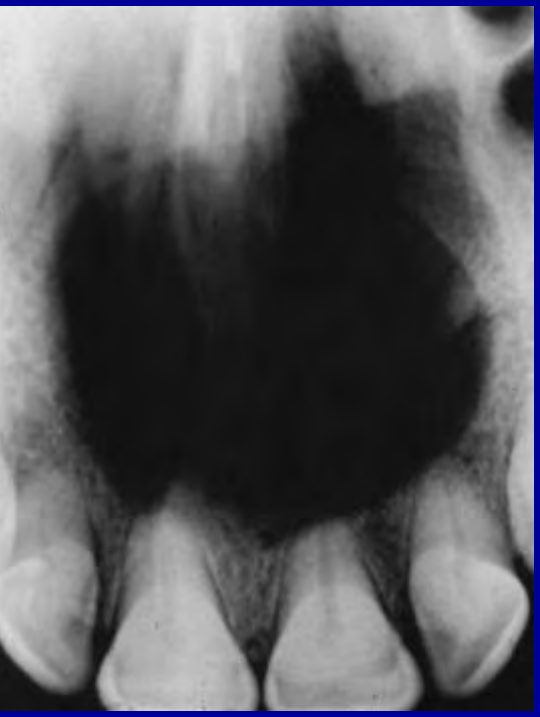
Median palatal cyst



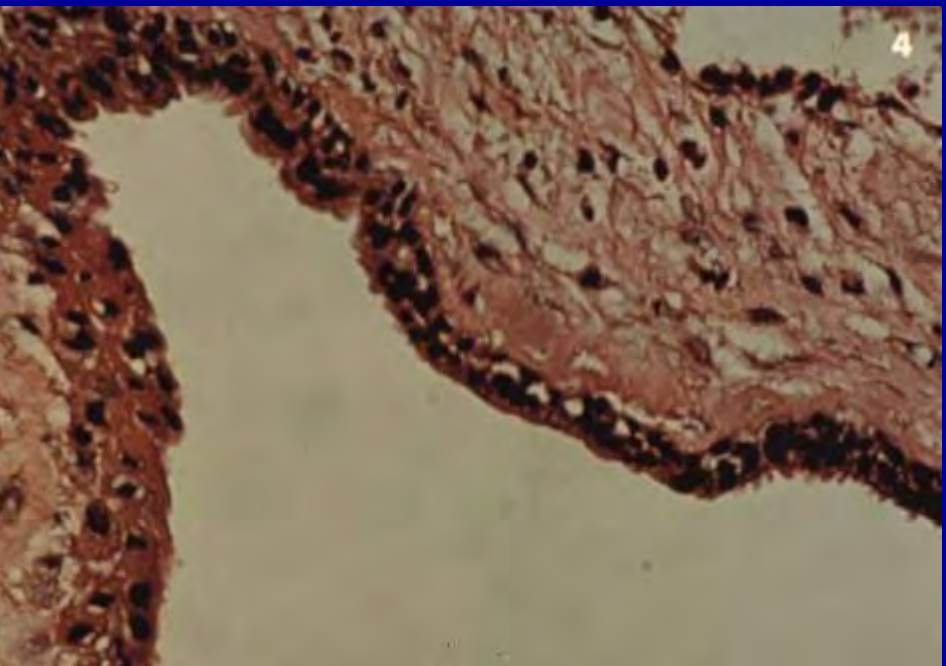
Median palatal cyst

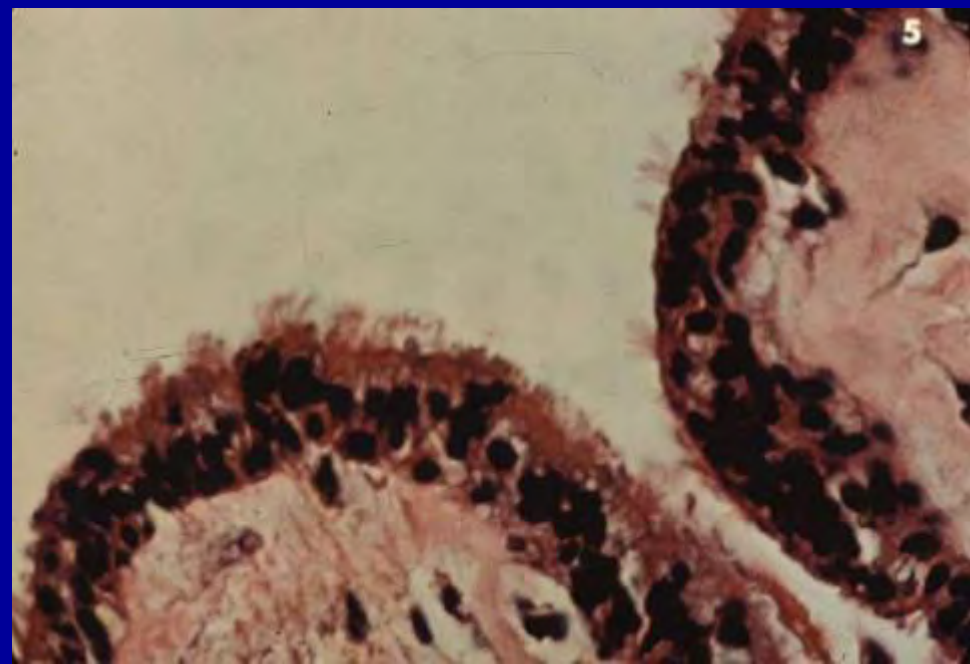






Median palatal cyst





Median mandibular cyst

1. Develops from epithelium entrapped during fusion of the halves of the mandible
2. Odontogenic origin

Median mandibular cyst

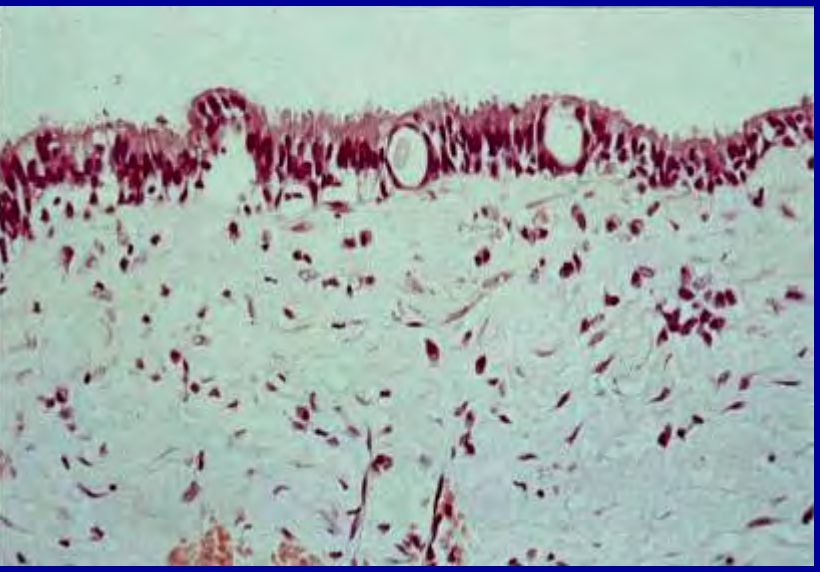
A midline radiolucency between or apical to the mandibular central incisor teeth

Median mandibular cyst

Histopathologic features:

Lined by stratified squamous epithelium, keratinized epithelium, or pseudostratified ciliated columnar epithelium

Median mandibular cyst



Epidermoid cyst of the skin

Clinical features:

1. Arising from the hair follicle
2. Young adults are more likely to have cyst on the face, whereas older adults are more likely to have cysts on the back

Epidermoid cyst of the skin

3. Males > females
4. White or yellow subcutaneous nodules

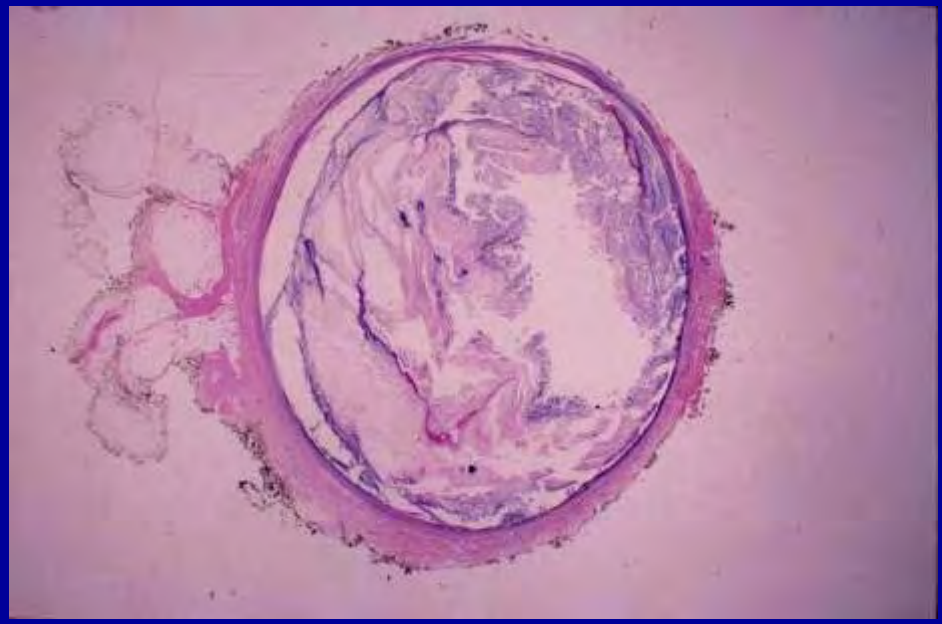
Epidermoid cyst

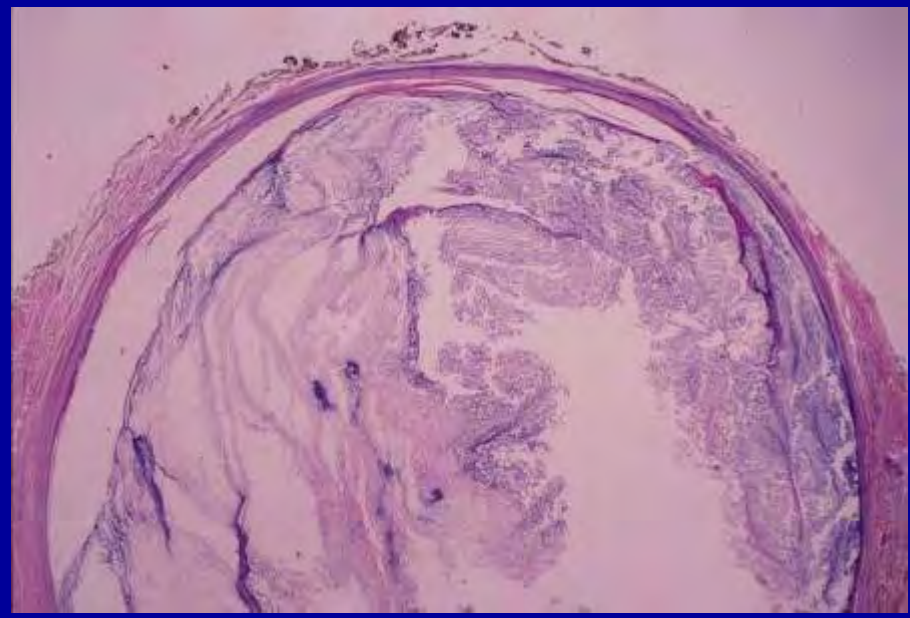
Histopathologic features:

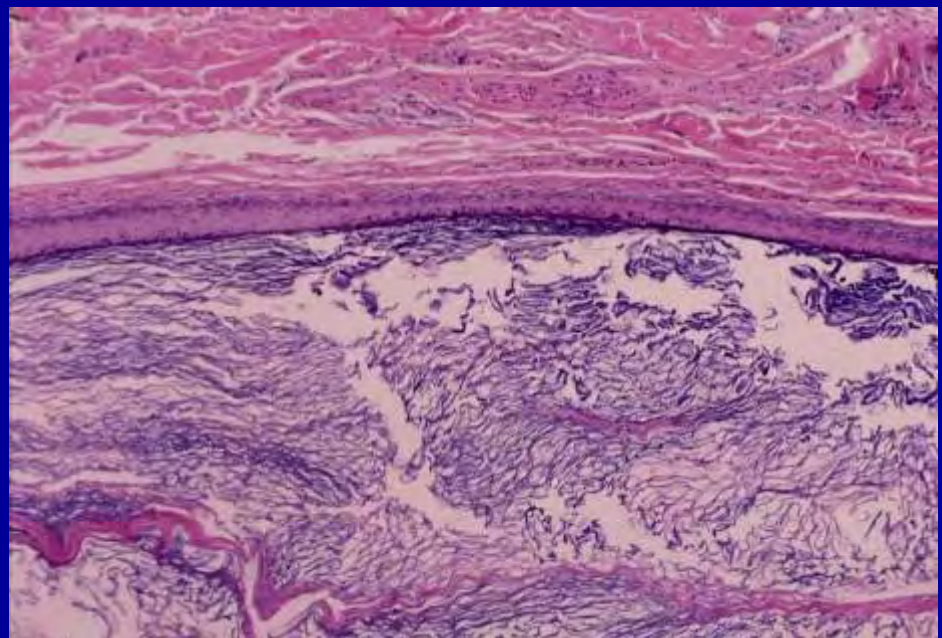
1. Lined by stratified squamous epithelium
2. Lumen filled with degenerating orthokeratin
3. Ruptured cyst wall may have foreign body reaction.

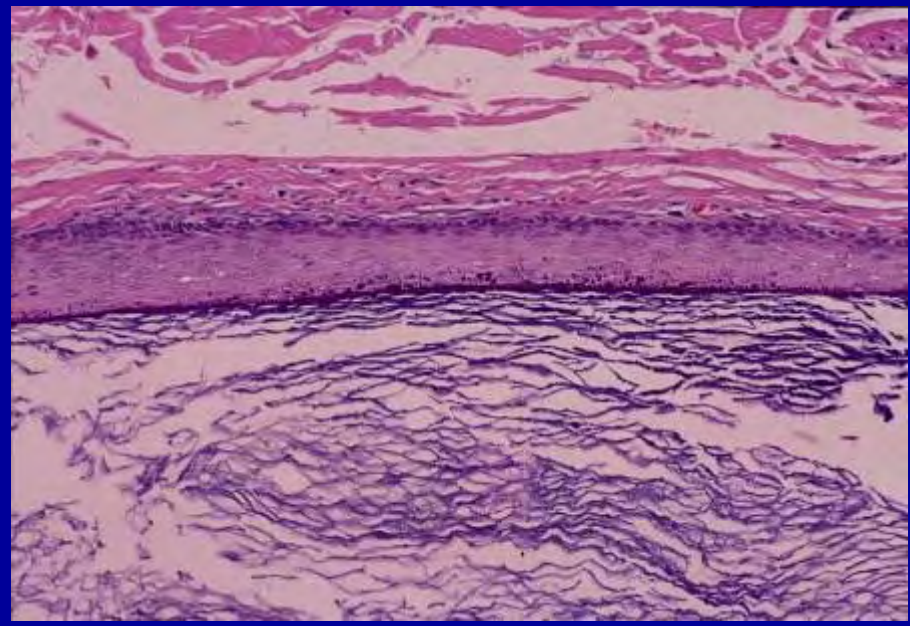
Epidermoid cyst

Epidermoid cyst

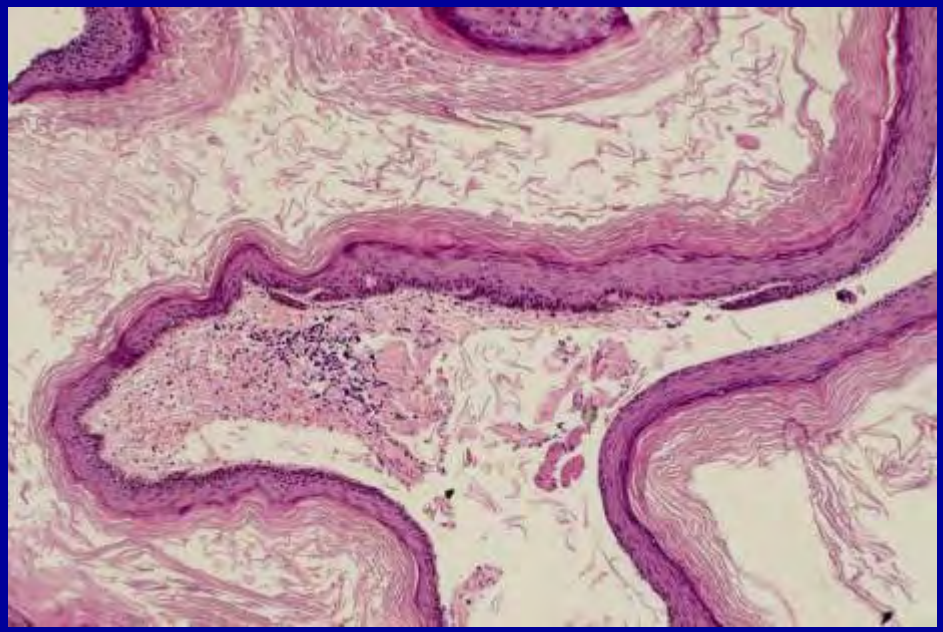


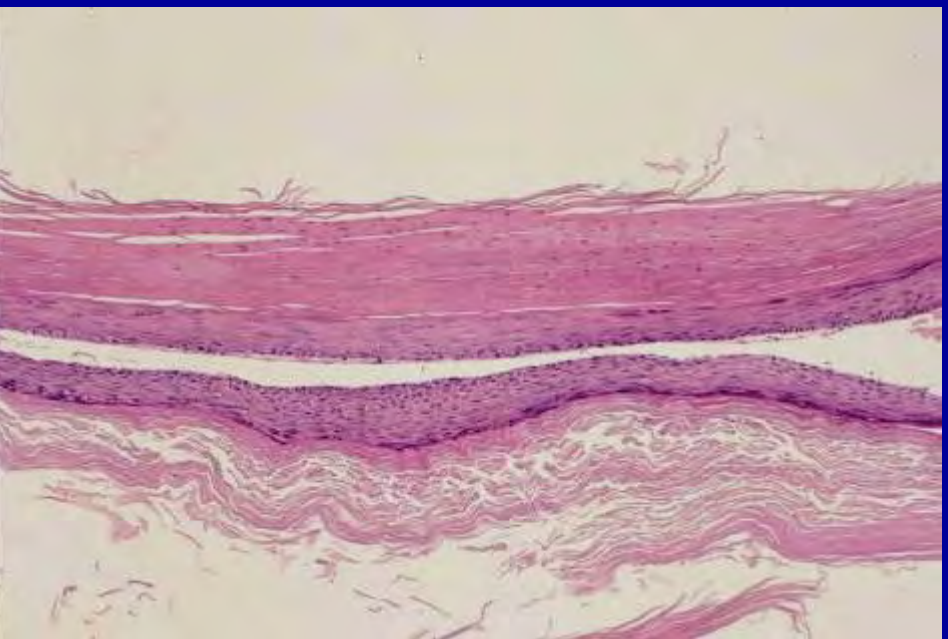


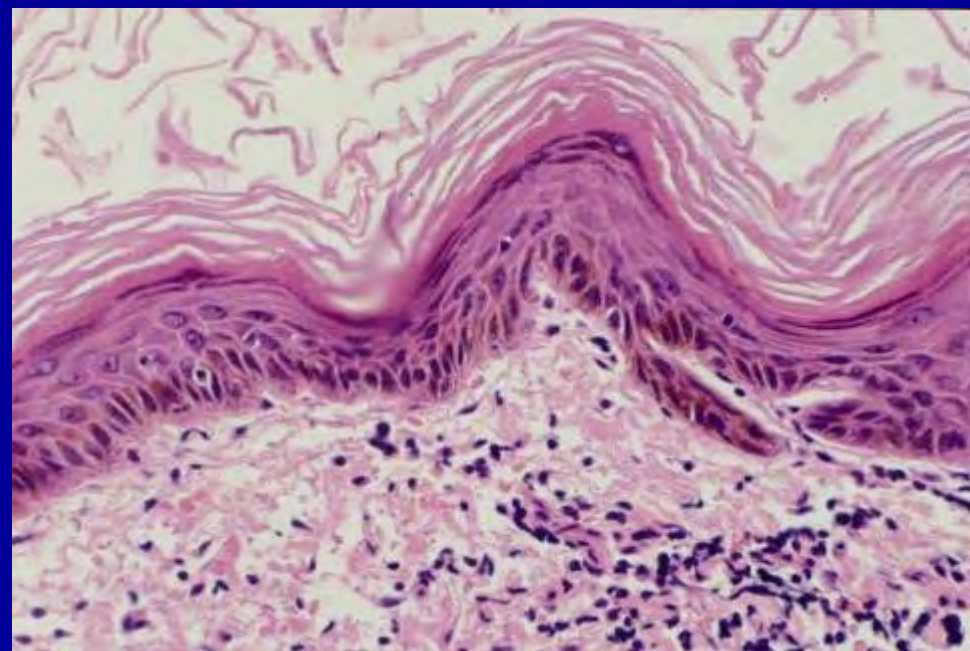




Epidermoid cyst







Dermoid cyst

The cyst is lined by epidermis-like epithelium and contains dermal adnexal structures

Dermoid cyst

1. Occurs in the midline of the floor of the mouth
2. Cyst above the geniohyoid muscle – a sublingual swelling

Dermoid cyst

3. Cyst below the geniohyoid muscle – a submental swelling
4. Common in young adults

Dermoid cyst

Histopathologic features

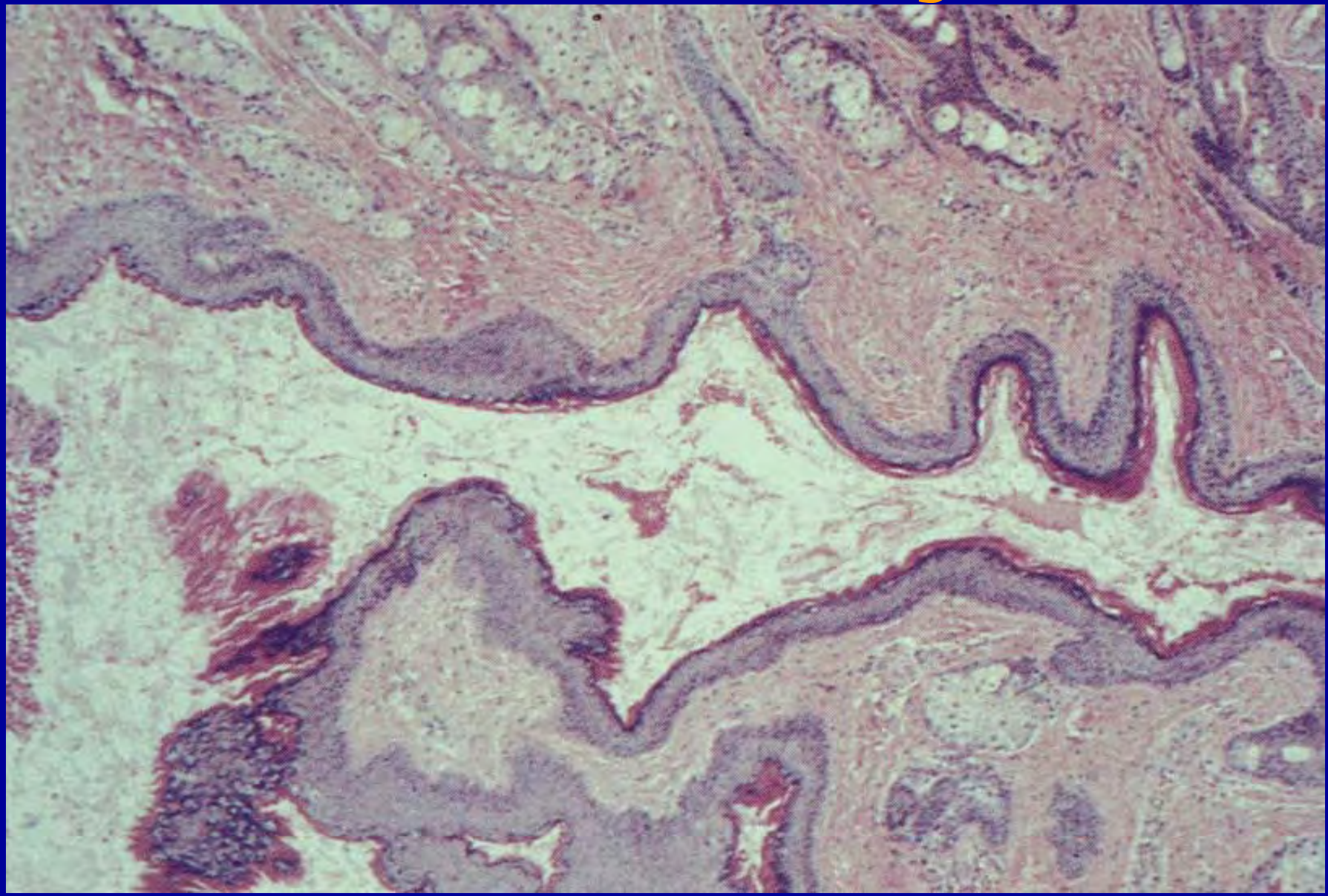
1. Lined by orthokeratinized stratified squamous epithelium with a prominent granular cell layer

Dermoid cyst

2. Keratin within the cyst lumen
3. The cyst wall contains sebaceous glands, hair follicles, or sweat glands

Dermoid cyst

Dermoid cyst



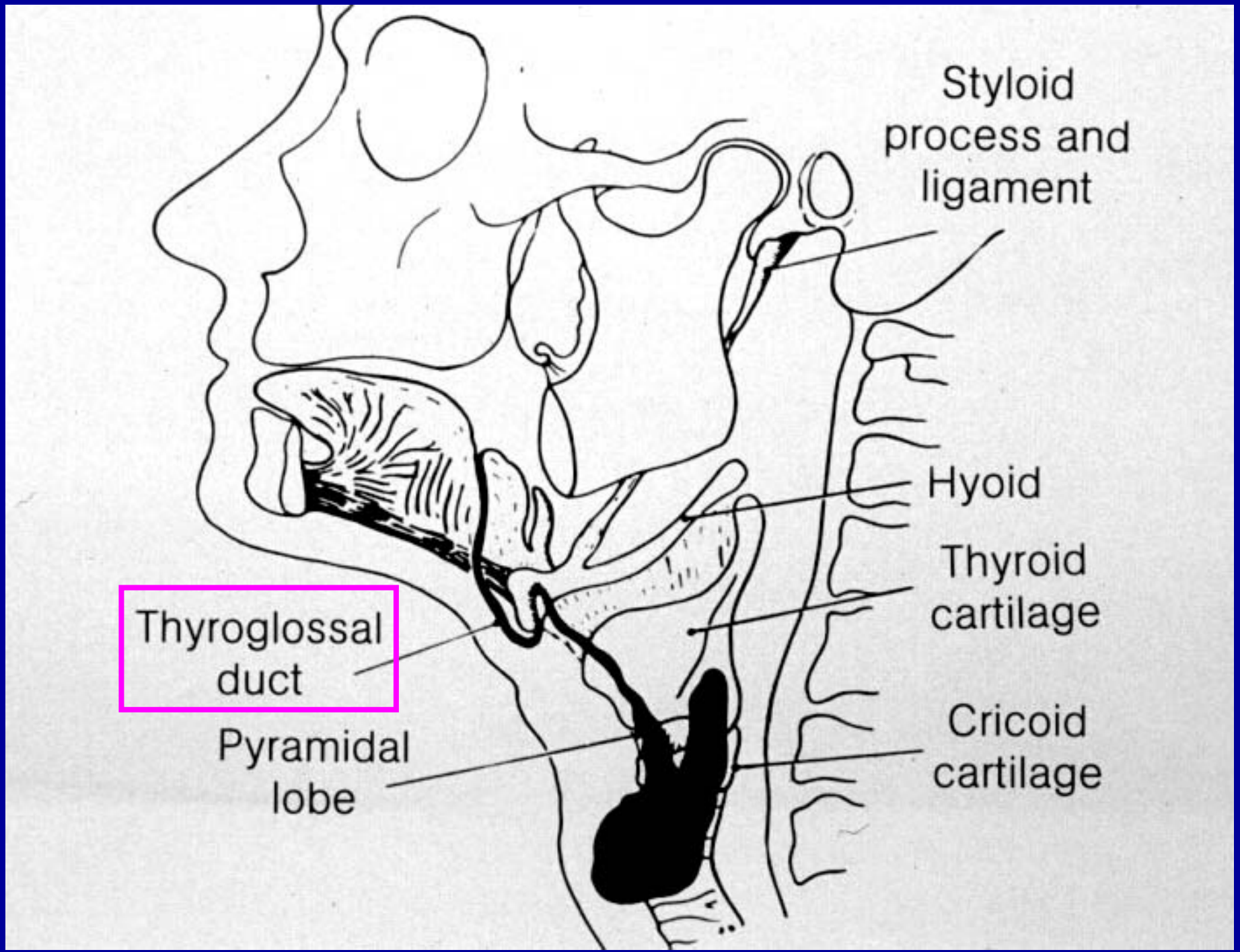
Thyroglossal duct cyst

1. A fluctuant swelling in the midline of the anterior neck
2. Common in the first two decades of life

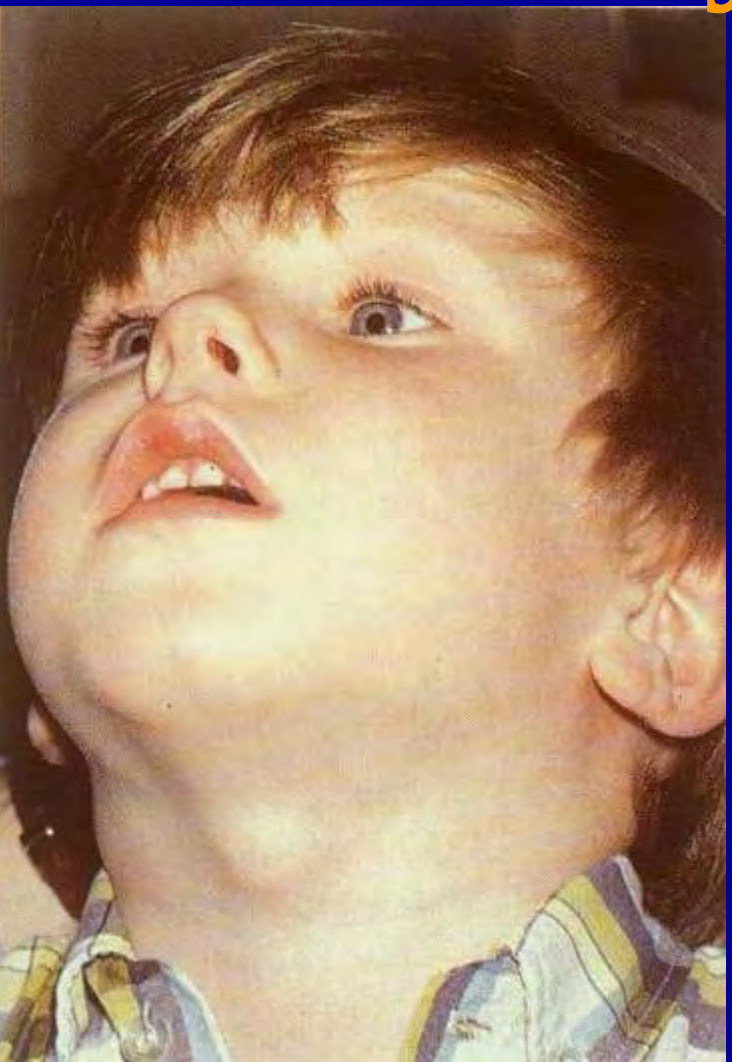
Thyroglossal duct cyst

Histopathologic features:

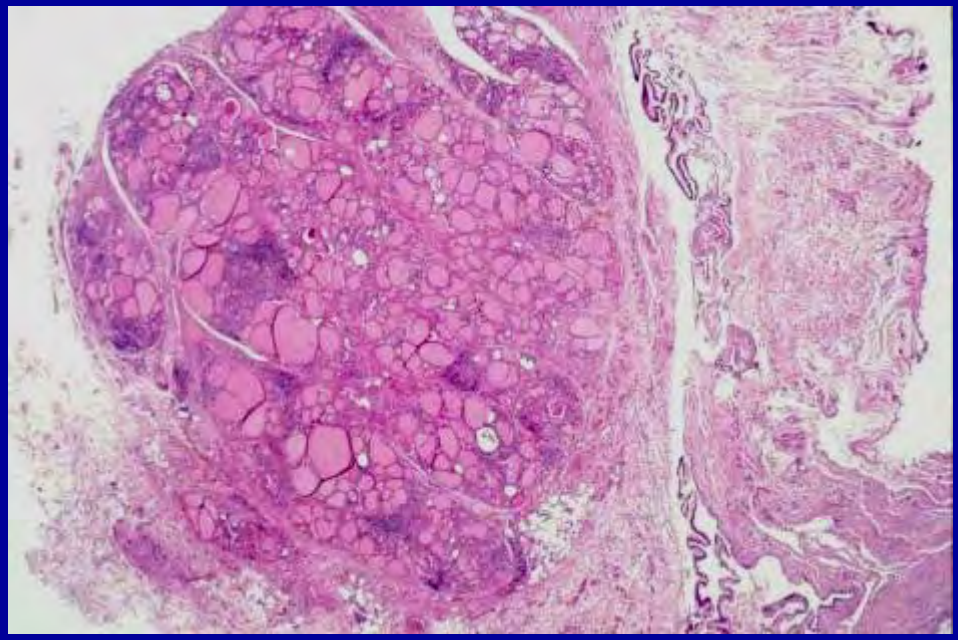
1. Lined by columnar or stratified squamous epithelium
2. Thyroid tissue may occur in the cyst wall.

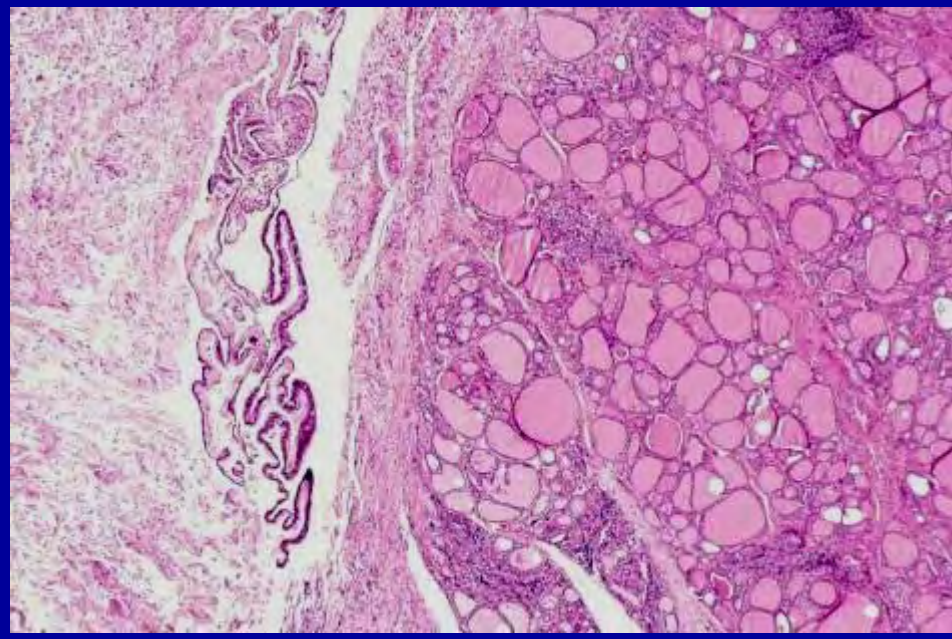

Styloid process and ligament
Hyoid
Thyroid cartilage
Thyroglossal duct
Pyramidal lobe
Cricoid cartilage

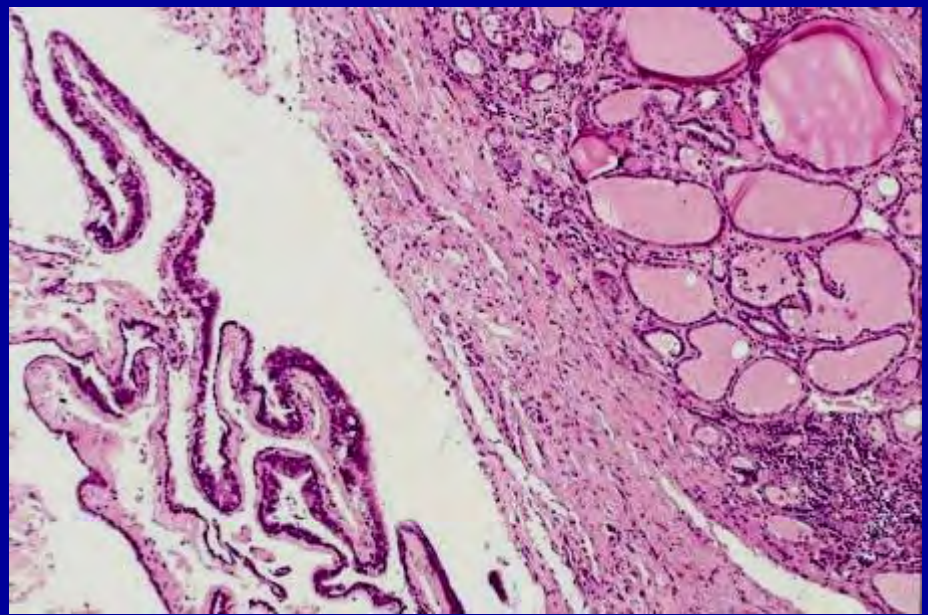
Thyroglossal duct cyst



Thyroglossal duct cyst







Cervical lymphoepithelial cyst

(Branchial cleft cyst)

1. From remnants of the branchial clefts
2. From cystic changes in parotid gland epithelium entrapped in the upper cervical lymph nodes

Cervical lymphoepithelial cyst

Clinical features:

1. In the upper lateral neck along the anterior border of the sternocleidomastoid muscle
2. Occurs in adults between the ages of 20 and 40

Branchial cleft cyst

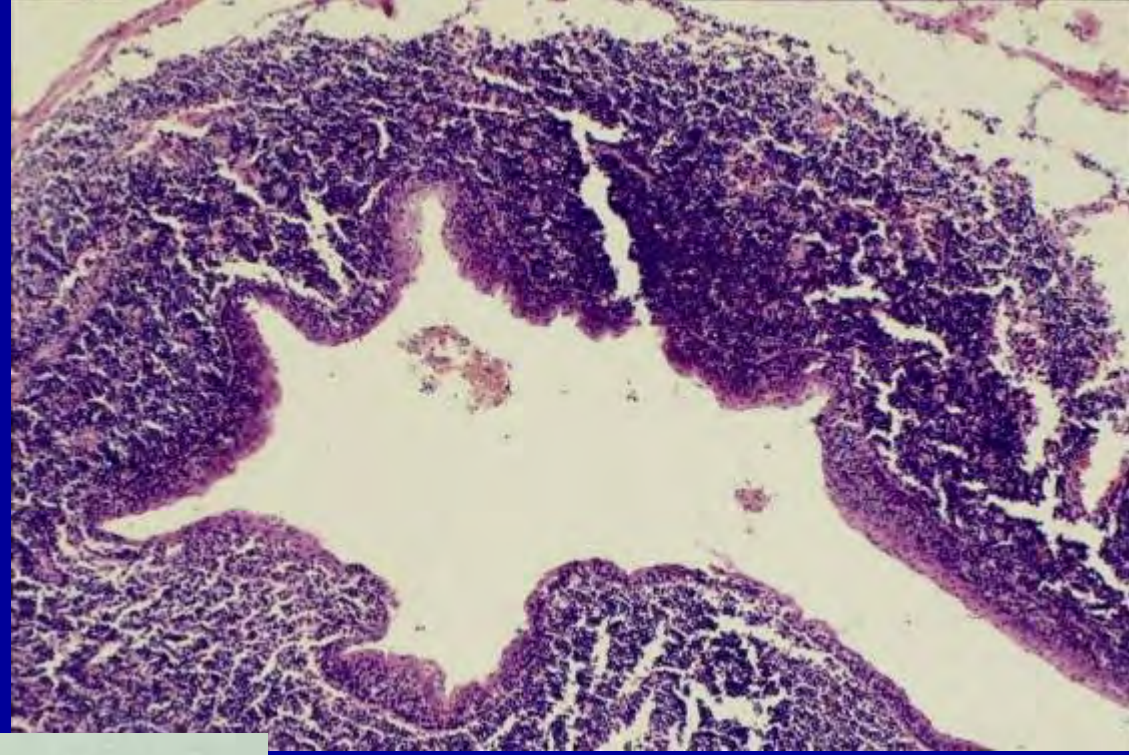
Branchial cleft cyst

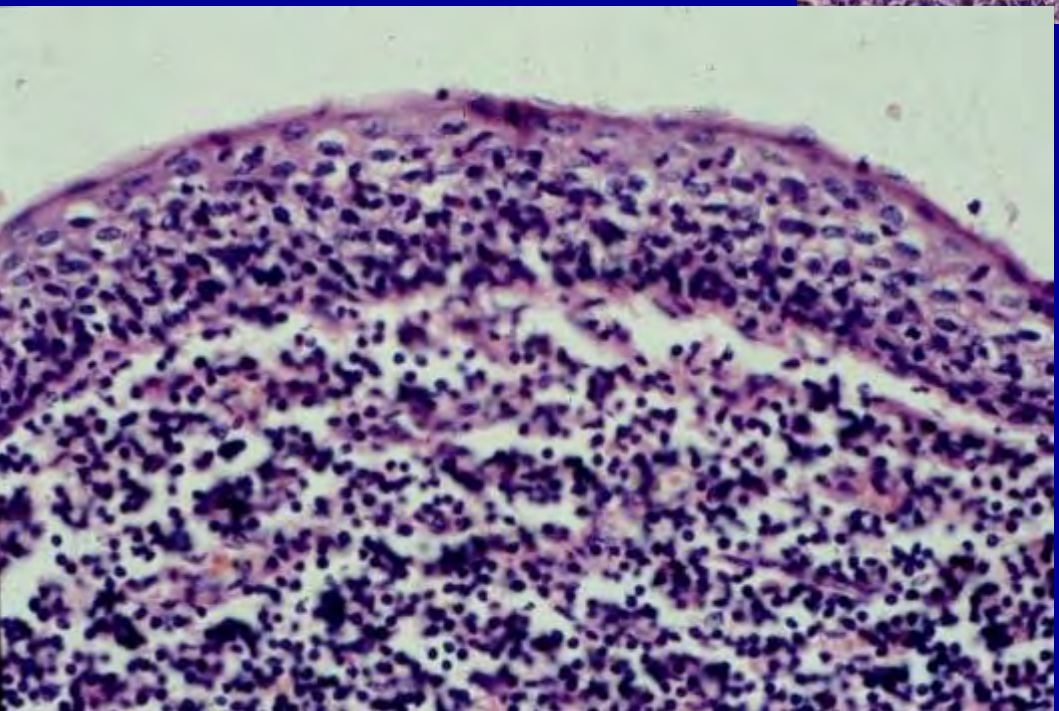
Cervical lymphoepithelial cyst

Histopathologic features

1. Lined by stratified squamous epithelium
2. The cyst wall contains lymphoid tissue with germinal center formation

Branchial cleft cyst





Oral lymphoepithelial cyst

Clinical feature:

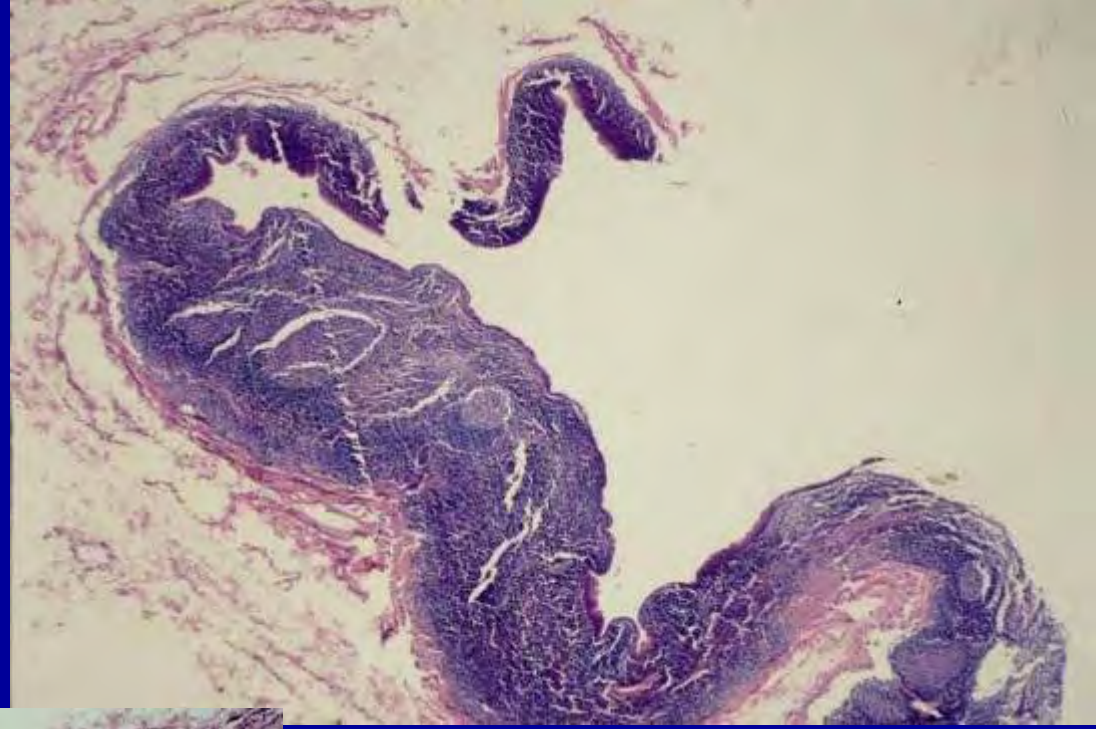
1. A white or yellow submucosal mass
2. Contains cheesy keratinaceous material

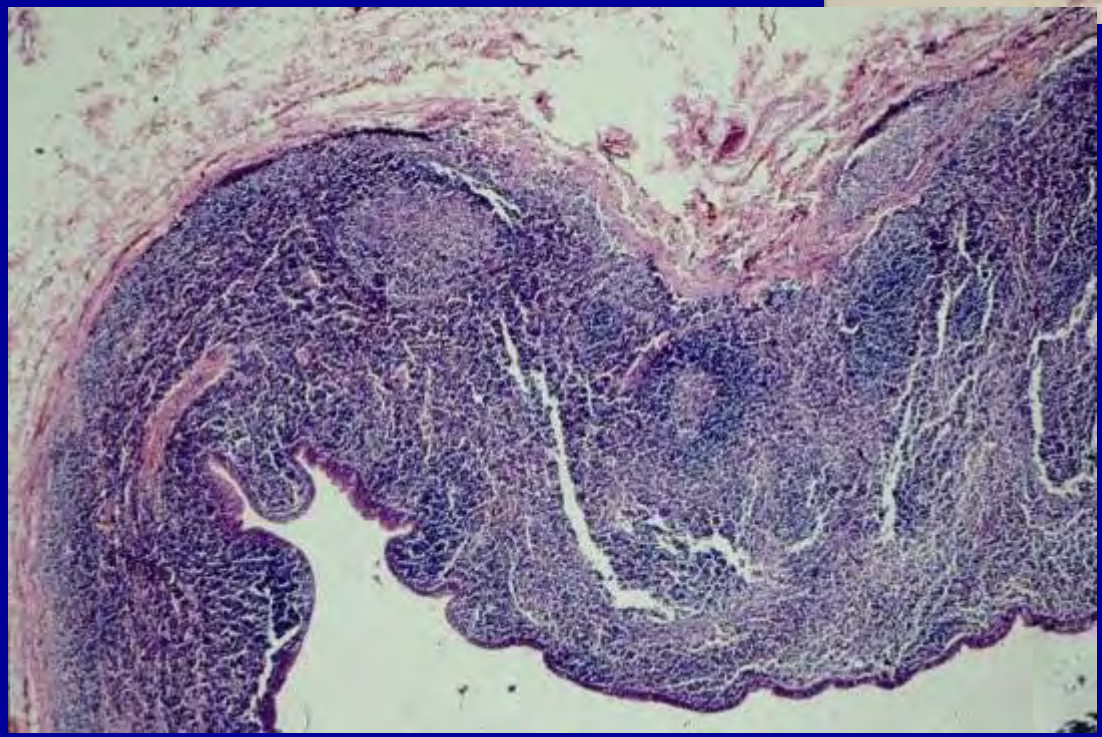
Oral lymphoepithelial cyst

3. Common in young adults
4. Occurs in the floor of the mouth (50%) or in the ventral surface and posterior lateral border of the tongue

Oral lymphoepithelial cyst

Oral lymphoepithelial cyst

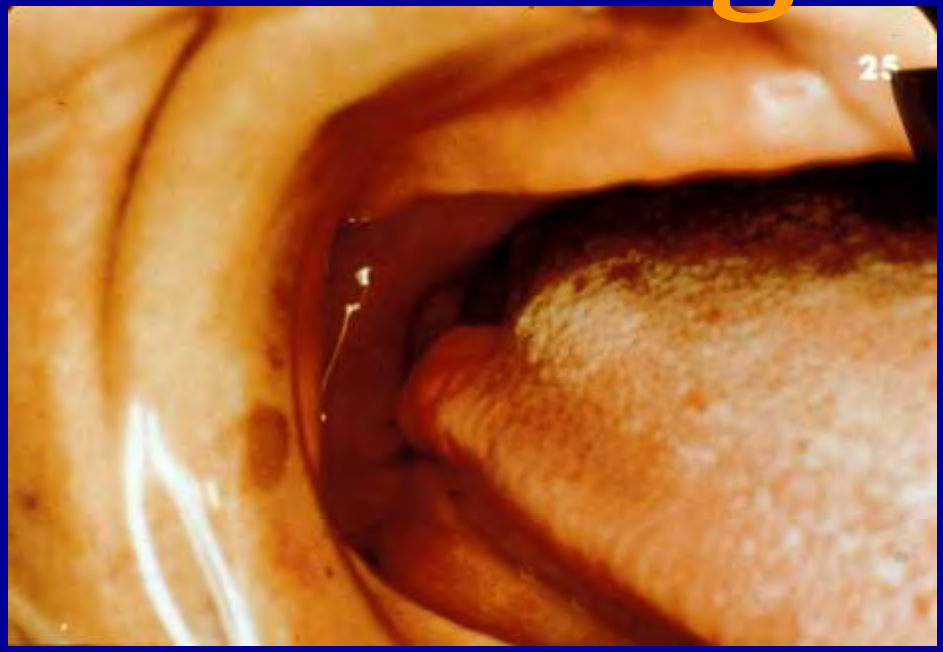


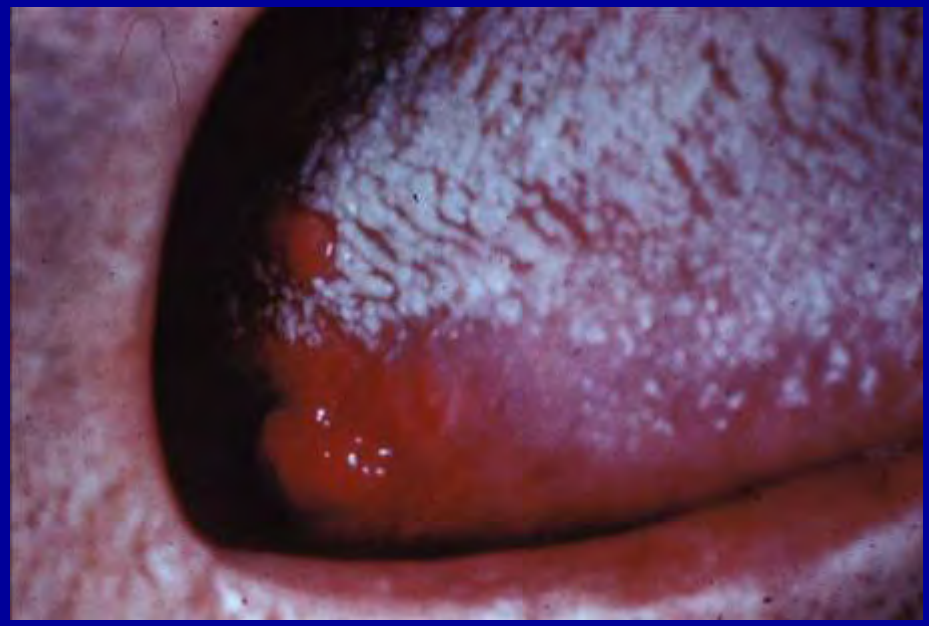


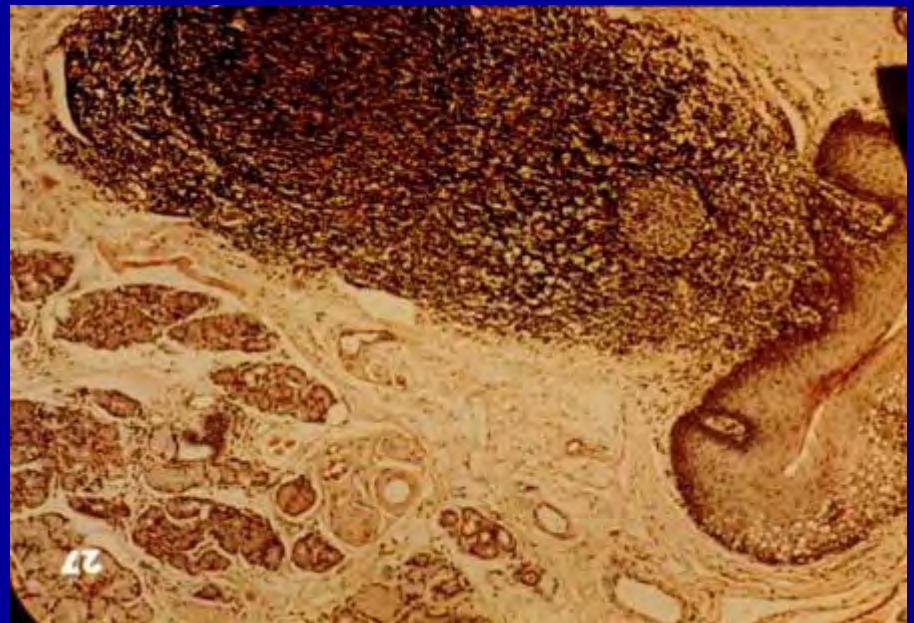
Oral lymphoepithelial cyst

1. Lined by parakeratinized stratified squamous epithelium
2. Contains lymphoid tissue with germinal center formation in the cyst wall

Lingual tonsil







Summary (1)

1. Orofacial clefts
2. Commissural lip pits
3. Paramedian lip pits
4. Double lip
5. Fordyce granules
6. Leukoedema
7. Microglossia

Summary (2)

8. Macroglossia
9. Ankyloglossia
10. Lingual thyroid
11. Fissured tongue
12. Hairy tongue
13. Varicosities
14. Lateral soft palate fistulas

Summary (3)

15. Coronoid hyperplasia
16. Condylar hyperplasia
17. Condylar hypoplasia
18. Bifid condyle
19. Exostoses
20. Torus palatinus and mandibularis
21. Stafne defect

Summary (4)

Developmental cysts:

- Palatal cysts of the newborn
- Nasolabial cyst
- Globulomaxillary cyst
- Nasopalatine duct cyst
- Median palatal cyst
- Epidermoid cyst of the skin
- Dermoid cyst
- Thyroglossal duct cyst
- Branchial cleft cyst
- Oral lymphoepithelial cyst

Thank you for your attention