



JAW TUMOURS

DR. SRINIVASA RAO G
M.S (General Surgery)
ASSISTANT PROFESSOR
Department of General Surgery
NRI IMS, VISAKHAPATNAM

Classification :

I. Swelling arising from gums (Epulis)

- Congenital epulis
- Fibrous epulis
- Pregnancy epulis
- Giant cell epulis
- Myelomatous epulis
- Sarcomatous epulis
- Carcinomatous epulis

II. Swelling arising from the dental epithelium (Odontomes):

- Ameloblastoma
- Compound odontome
- Enameloma
- Cementoma
- Dentinoma
- Odontogenic fibroma and myxoma
- Radicular odontome
- Composite odontome

Cysts arising in relation to dental epithelium :

- Dental cyst & Dentigerous cyst

III. Swellings arising from the mandible or maxilla :

- Osteoma and osteoblastoma
- Torus palatinus and mandibularis.
- Fibrous dysplasia.
- Osteoclastoma (Common in mandible)
- Osteosarcoma
- Secondaries
- Giant cell reparative granuloma

IV. Surface tumours :

- Tumours from the surface which extend into jaw.
- Ossifying fibroma
- Osteofibrosis of maxilla.
- Ivory osteoma of jaw.
- Leontiasis ossea (diffuse osteitis).
- Carcinoma extending into the jaw.

EPULIS

- Generic term applied for tumor of gingiva or alveolar mucosa
- Tumor like hyperplasia of the fibrous connective tissue
- ***Classification***
 - FIBROUS
 - GRANULOMATOUS
 - MYELOID
 - SARCOMATOUS
 - CARCINOMATOUS



EPULIS (Greek-means upon the gum)

Swelling arising from the mucoperiosteum of gums.

Congenital Epulis :

- A benign condition seen in a newborn arising from gum pads.
- It is more common in girls, and common in upper jaw.
- Commonly arising from canine or premolar area.
- It is not a malignant condition.
- Clinical feature – Well localised swelling from the gum which is firm and bleeds on touch.
- Treatment – Excision.







Fibrous Epulis

- It is a benign condition, red, firm/hard, sessile/pedunculated.
- It is the commonest type of fibroma arising from periodontal membrane.
- Clinical features – Painless, well localised, hard, non-tender, grey pink swelling in the gum which bleeds on touch.
- Investigations – X-ray jaw, OPG, Biopsy from the lesion.
- Treatment – Excision with extraction of the adjacent tooth. Recurrence can occur if root is not removed properly.

Fibrous epulis





Fibrous epulis

Granulomatous epulis

Dental granuloma



Epulis

Pregnancy Epulis

- It occurs in pregnant women due to inflammatory gingivitis.
- Usually during 3rd month of pregnancy.
- It usually resolves after delivery. Otherwise it should be excised.

Myelomatous Epulis

- It is seen in leukaemic patients.
- Investigated for leukaemia by peripheral smear, bone marrow biopsy.
- Treatment : Forleukaemia.



Granulomatous Epulis

It is a mass of granulation tissue in the gum around a caries tooth. It forms a localised soft/firm/fleshy mass in the gum which bleeds on touch.

Giant Cell Epulis

Osteoclastoma causing ulceration and haemorrhage of gum.

Carcinomatous Epulis

Squamous cell carcinoma of the alveolus and gum presenting as localised, hard, indurated swelling with ulceration.

Fibrosarcomatous Epulis

Fibrosarcoma arising from fibrous tissue of the gum.

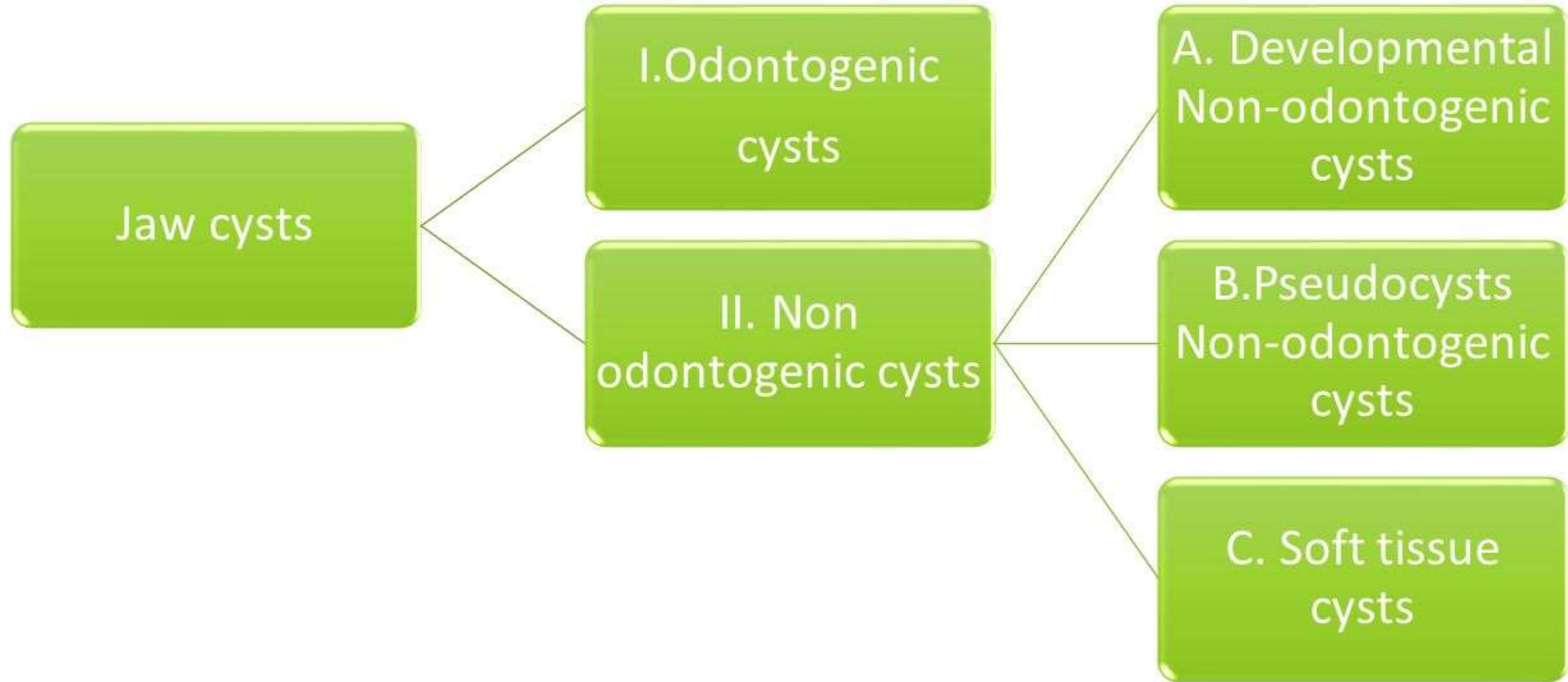


Giant cell epulis





Classification of the jaws cysts :



Cyst of the Oral Cavity:

- ODONTOGENIC CYST
- NON-ODONTOGENIC CYST

ODONTOGENIC CYST

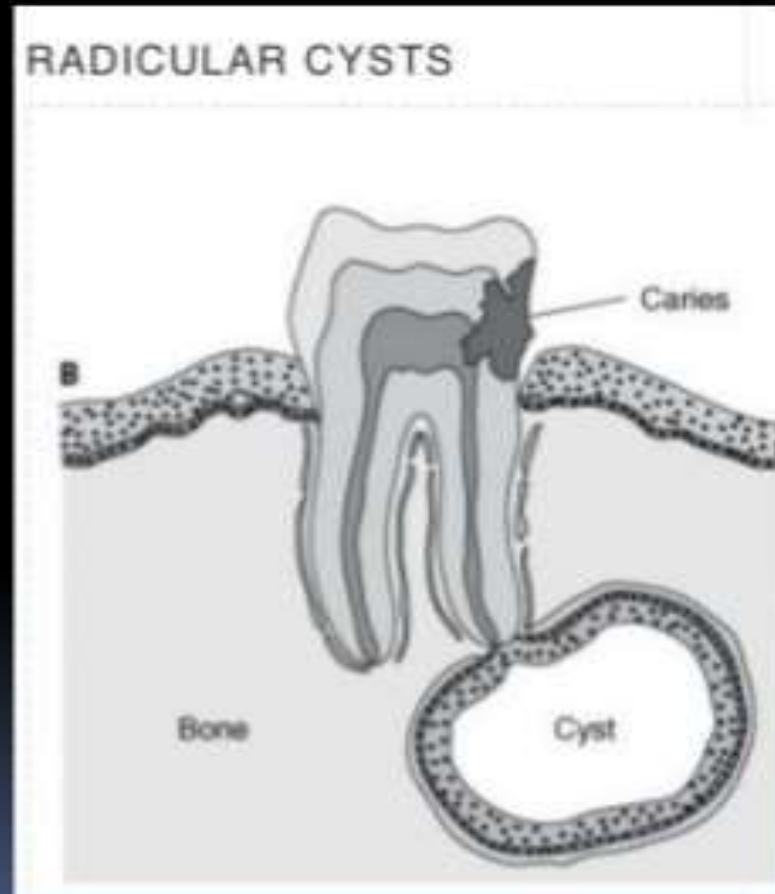
- ✓ (a) Periodontal/Radicular Cyst
- ✓ (b) Dentigerous Cyst
- ✓ (c) Lateral Periodontal Cyst
- ✓ (d) Odontogenic Keratocyst
- ✓ (e) Calcifying Odontogenic Cyst

ODONTOGENIC CYST

- **Periodontal/Radicular Cyst**
 - most common type of cystic lesion

Clinical Features:

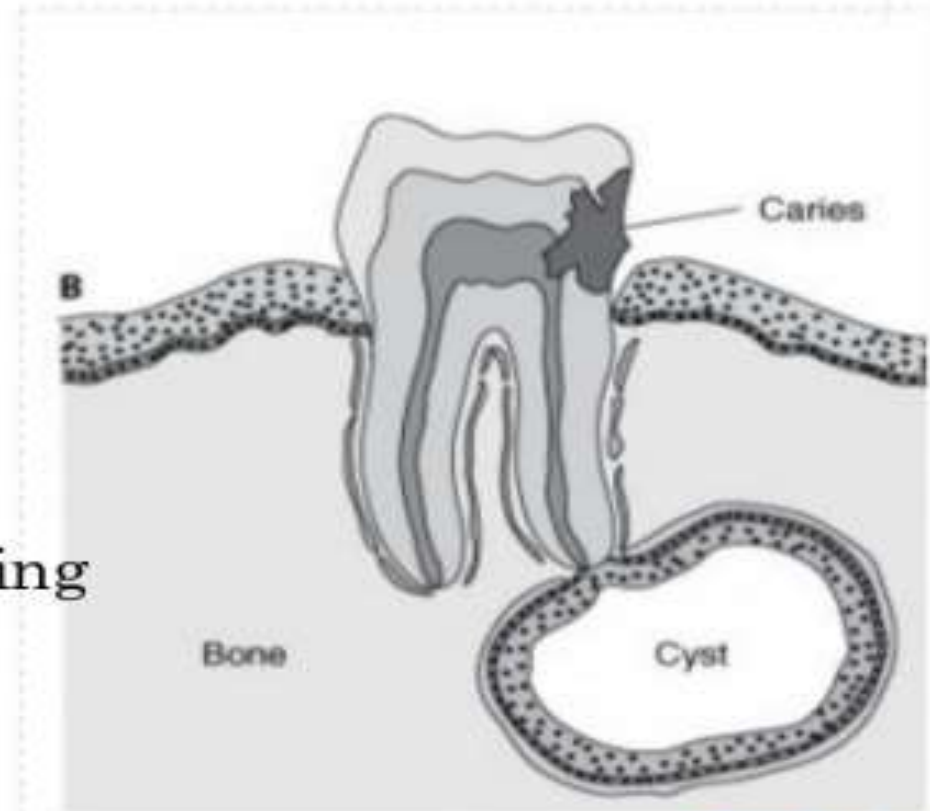
- painful condition at initial stage of inflammation but eventually becomes asymptomatic
- associated tooth is non-vital
- slow growing



(1) Odontogenic Cyst (Radicular Cyst)

- also known as Apical Periodontal Cyst; Periapical Cyst; Root End Cyst
- common
- not inevitable sequela of periapical granuloma originating as a result of:
 - ✓ bacterial infection
 - ✓ necrosis of dental pulp
 - ✓ following carious involvement of tooth

RADICULAR CYSTS



Radiographic Features:

- well circumscribed radiolucency at the apex of the tooth involved



Radicular Cyst

Periapical lesion, anterior margin, > 1.5cm

Arise from epithelial rests in the periodontal ligament as a consequence of inflammation.



Fig. 3-22 Paratubal cyst. Radiolucency associated with the maxillary central incisor, which exhibits significant root resorption.

Histological Features:

- contents may be fluid or cheese- like material
- fluid contains inflammatory infiltrates

Treatment:

- enucleation following RCT or extraction of the tooth

DENTIGEROUS CYST

- ▶ A dentigerous cyst results because of the enlargement of the follicular space of the whole or part of the crown of an impacted or unerupted tooth and is attached to the neck of the tooth





B- Dentigerous cyst

- 1- formed around the crown of unerupted tooth
- 2- could turn to ameloblastoma
- 3- roots of adjacent teeth may be resorbed and tilted
- 4- common sites: lower 8, lower 5 and upper 3



DENTIGEROUS CYST

- Definition-
- An epithelial cyst containing fluid and one or more imperfect teeth usually thought to result from defect in the enamel forming structure.
OR ,An odontogenic cyst that surround the crown of the impacted tooth , caused by fluid accumulation between the reduce enamel epithelium and the enamel surface , resulting in a cyst in which the crown is located within the lumen

- Dentigerous cyst :
- Enclose part or all of the crown of an unerupted tooth
- develops from proliferation of the reduced enamel epithelium
- Eruption cyst arises in an extra-alveolar location

ORIGIN

- The exact histogenesis of dentigerous cyst remain unknown ,but most authors favor a developmental origin from the tooth follicle

AETIOLOGY

- Develops by accumulation of fluid between reduce enamel epithelium and crown after crown formation
- By transformation of epithelium in the in the wall of dental follicle and uniting with the follicular epithelium

INCIDENCE

- AGE: first to third decades
- SEX: equal in both sex
- SITE: maxilla -33%,mandible-67%
- most frequently located in angle of
- mandible . canine region of maxilla &
- mandible .
- maxillary 3rd molar area , rarely at
- anterior segment

CLINICAL FEATURE

- 1. It is aggressive type of cystic lesion but may remain silent
- 2.usually painless , pain arise when secondary infection occurs
- 3.If untreated-swelling became large
- 4.expansion of bone with subsequent facial asymmetry
- 5.pus may discharge in case of secondary infection
- 6. In the region of cyst:- the tooth may remain unerupted

CYSTIC CONTENTS

1. Consist of clear yellowish fluid , in which cholesterol crystals may present
2. In case of long standing infection purulent pus may present.

INVESTIGATION -

1. Orthopantomograph .
2. CT scan .
3. 3D CT scan .
4. Extra – oral radiograph – P/A .
5. Lateral view of the mandible .
6. P/A view maxilla in water`s position .
7. Incision biopsy .
8. Blood for TC,DC,ESR and HB%
9. Blood for BT , CT .
10. Random blood glucose level .
11. HBs Ag .

or enlarged follicle. Radiolucent lesion
upt mandibular premolar. Distinction
and an enlarged follicle for a lesion of
even histopathologic
if not impossible.



TREATMENT -

Dentigerous cyst can be treated in one of the following basic methods –

1. Enucleation .
2. Marsupialization .
3. A Staged Combination of the two procedures
.
(Enucleation after marsupialization 0
4. Enucleation with curettage .

*Thank
You*



Adamantinoma

AMELOBLASTOMA (Adamantinoma, Eve's Disease, Multilocular Cystic Disease of the jaw)

- It arises from the dental epithelium probably from the enamel/dental lamina.
- It occurs commonly in mandible or maxilla.
- Occasionally, seen in the base of the skull in relation to Rathke's pouch or in tibia.
- Histologically, it is a variant of basal cell carcinoma.
- It is locally malignant tumour.
- It neither spreads through lymph node nor through blood.
Hence it is curable.

- It is usually unilateral.
- It can occur in a pre-existing dentigerous cyst.
- It is usually multilocular cystic spaces but can be unilocular also.
- Histologically cords of odontogenic epithelium, connective tissue, stellate reticulum like cells with columnar ameloblast like cells.



Clinical Features :

- Swelling in the jaw usually in the mandible near the angle which attains a large size, extending to vertical ramus—Eggshell crackling.
- It is a gradually progressive, painless swelling which is smooth and hard with intact inner table (enlarges externally).

Differential Diagnosis

- Osteoclastoma of the mandible: Here inner table is not intact.
- Dentigerous cyst.
- Dental abscess.

- Giant cell reparative granuloma (Jaffe's tumour): It is a swelling which occurs due to haemorrhage within the bone marrow. It contains vascular stroma, collagen and connective tissue cells. It is common in women. It causes painless enlargement of jaw. It can be treated by calcitonin (100 units/0.5 mg subcutaneously daily for 12 months) or surgical curettage.

Investigations

OPG shows multiloculated lesion – Honeycomb appearance

Biopsy confirms the diagnosis.

CT scan – Shows extent of involvement of bone.

Treatment :

- Segmental resection of the mandible or hemimandibulectomy with reconstruction of the mandible.
- Curettege and bone grafting should not be done as there is chance of recurrent tumour can spread to blood into the lung.

DENTIGEROUS CYST (FOLLICULAR ODONTOME

Unilocular cystic swelling arising from dental epithelium of an
unerupted tooth

Common in lower jaw but also occur in upper jaw.

It occurs over the crown of unerupted tooth in relation to premolars or molars, expanding outer table of the mandible.

