

Definition Cyst is a pathological cavity lined by epithelium and containing fluid or semi fluid material. Displacement of teeth , with facial asymmetry is common .Cystic content : keratin , yellowish or dirty white material similar to pus without offensive odor. Radiographic features : multilocular , radiolucent area with typical " soap – bubble appearance " scalloping border .Histopathological features :

Parakeratinized odontogenic cyst ? Cystic cavity lined by keratinized stratified odontogenic epithelium , with no rete peg ? basal epithelial layer is made up of tall , columnar cells , 6–10 cells in thickness , showing palisading arrangement (tombstone) o Epithelium is thin , folded and loosely attached to the underlying connective tissue . ? Mitotic activity is frequent . ? Keratin shows remnants of nuclei (parakeratinized).Histopathologic Features Surface corrugated with a parakeratotic surface thin , regular , continuous layer of st . sq . ep . 6–8 cells thick & smooth b.m.Histopathological features : ? The WHO : parakeratinizing keratocyst the keratocystic odontogenic tumor cystic lumen shows a corrugated (uneven) appearance and contains keratin connective tissue stroma is thin , few inflammatory cells . – Connective tissue wall shows small islands of epithelium similar to the lining epithelium (daughter or satellite cysts). Ortho – keratinized primordial cyst Less common than parakeratinized type (15 %) Less aggressive o Lower recurrence rate The surface is smooth (non – corrugated) Subsurface layer of granular cells o Basal cell less prominent.recurrence rate is very high (due to the presence of daughter cysts , the loose attachment between epithelium and connective tissue ; and the high mitotic activity) OKC has been found to be associated with nevoid basal cell carcinoma syndrome . Dentigerous Cyst (Follicular Cyst) : ? Cyst that encloses the crown of an impacted tooth at its neck portion . o arises due to fluid accumulation between reduced enamel epithelium and enamel surface resulting in a cyst in which the crown is located within the lumen . Enlargement is slower than periodontal or primordial cyst due to lower mitotic index = number of mitosis per length of epithelium).Dentigerous Cyst (Follicular Cyst) : Radiological features : ? well defined , unilocular , radiolucent area , enclosing the crown of an impacted tooth , and the periphery of the lesion is bordered by a radiopaque margin . Radiological types seen are : central , lateral and circumferential types .Histopathological Features : Presence of cystic cavity , lined by a thin layer of odontogenic epithelium , supported by a connective tissue stroma . cystic epithelial cells are usually flat or cuboidal , epithelium is nonkeratinized . o Mucous cells may be seen within the lining epithelium . Complications of dentigerous cyst Jaw fracture Can give rise to ameloblastoma Malignant transformation into mucopidermoid or squamous cell carcinoma. Eruption cyst Superficial dentigerous cyst . A soft tissue cyst that arise from enamel organ epithelium after enamel formation . Age : children o Site : unerupted deciduous teeth or permanent molar Appearance : soft round bluish swelling X – ray : negative.Keratinizing and / or calcifying epithelial odontogenic cyst (Gorlin cyst) o It is a relatively uncommon odontogenic cystic lesion of the jaw bones . ? There are three variants of this : Solid , cystic , neoplastic o (75 % of cysts are intraosseous , 25 % extraosseous) Clinical features : The cyst develops in the second decade of age ; occurring in the anterior part of maxilla and mandible . Bony , hard swelling of the jaw with expansion and distortion of cortical plates and displacement of regional teeth .KCOC Radiological features : – Shows a unilocular or multilocular radiolucent area with a well – corticated margin . o – Multiple , small , radiopaque calcified foci , of varying radiodensity are found .KCOC Histopathological features : ? – A cystic cavity lined by an

odontogenic , keratinized epithelium ; the cells are columnar or cuboidal showing a palisading arrangement . –Basal cell nuclei are darkly stained and polarized away from basement membrane – Above the basal layer , there is a layer of loosely arranged epithelial cells resembling the stellate reticulum cells Some epithelial cells may proliferate to fill the cystic lumen lumen , giving the cyst the picture of a solid neoplasm.Cystic epithelium shows the presence of many " ghost cells " Ghost cells : a) swollen , have hyaline eosinophilic cytoplasm , ill defined outline , their nuclei undergo karyolysis b) may become keratinized or calcified Irregular eosinophilic masses of dentinoid matrix are seen within the epithelium Calcified bodies : multiple , small , basophilic , seen within the epithelial lining of the cyst .Toxins exit from apex Periapical inflammation , apical periodontitis , periapical granuloma Stimulation (inflammatory hyperplasia) of epithelial rests of Malassez Epithelial mass increases in size and its central area undergoes liquefaction necrosis caused by a lack of blood supply This creates an epithelial lined cavity filled with fluid , i.e. Granuloma become a cyst .Mechanism of cyst enlargement |Classification of Cysts Shear's Classification: Cysts of the jaws: A. Epithelium : odontogenic:* developmental: Primordial, Gingival cysts of Infants, Gingival cysts of adults, Lateral periodontal ,Dentigerous ,Eruption cysts ,Calcifying odontogenic cyst . *inflammation: radical , residual , paradental cyst .ODONTOGENIC CYSTS : These are cysts in which the epithelial lining of the lumen is derived from epithelial rests of tooth – forming tissue , such as : a– Epithelial rests of Malassez b– Reduced enamel epithelium c – Remnants of dental lamina (epithelial rests of Serres) .Inflammatory periapical cyst(radicular cyst):Clinical features –Smaller lesions are asymptomatic –Larger cysts produce slow , enlarging , bony hard swelling of the jaw , expansion and distortion of cortical plates .3.Cysts of soft tissues of mouth , face and neck: Dermoid and epider– mold cyst ,Branchial cyst ,Thyroglossal duct cyst, Cystic hygroms Cysts of salivary glands ,Parasitic / hydatid cysts.2 – osmotic pressure within the cyst becomes higher than hydrostatic pressure , causing fluid transport across the epithelial lining and C.T. , from outside to inside the cystic cavity 3– Cystic growth will stimulate osteoclastic activity & bone resorption 4– Inflammatory mediators (prostaglandin) stimulate bone resorption.a small cystic cavity , lined by non keratinized stratified squamous epithelium , 1–5 cell layers thick (resembles reduced enamel epithelium) with focal thickenings .The Botryoid odontogenic cyst is a polycystic variant of the lateral periodontal cyst , resembling a cluster of grapes.Clinical features : ?2.1.??