

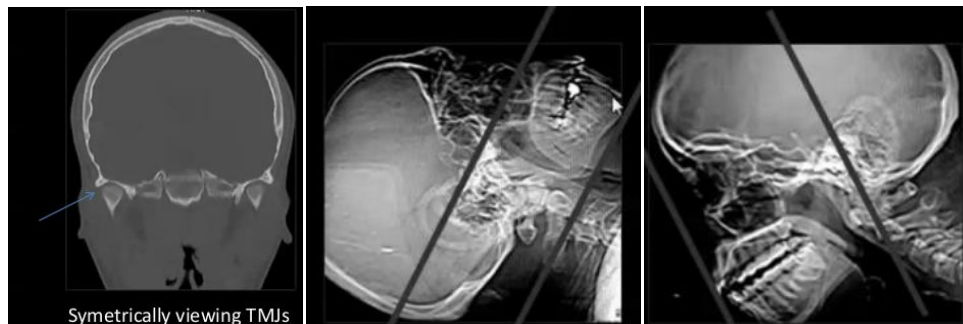
JAW IMAGING

| IMAGING MODALITY | VALUE |
|------------------|--|
| X – Ray | Basal |
| Panorama | Better evaluation of Bone & Tooth |
| CT | Coronal & Axial scan + CT panorama & 3D 3D only important in Trauma |
| MRI | Best soft tissue differentiation Not commonly Needs in JAW |

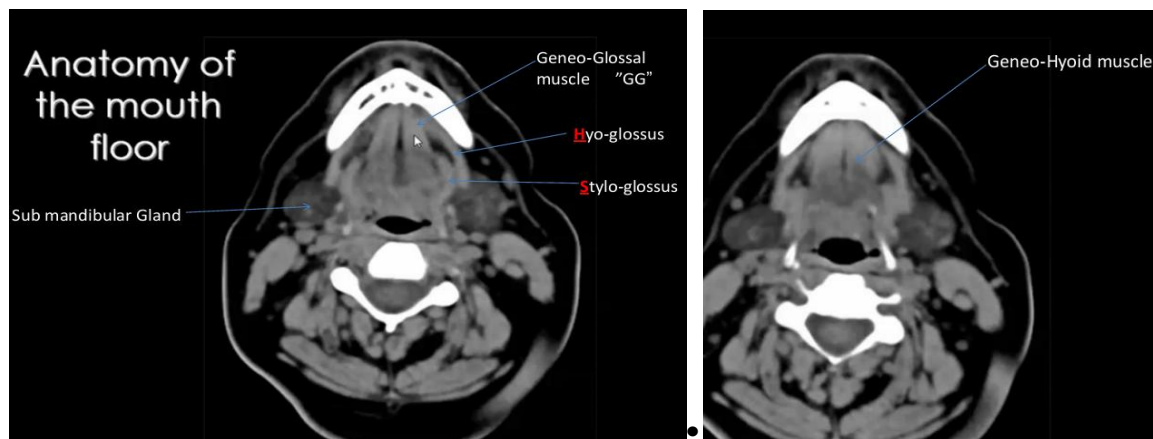


• CT PROTOCOL :

- Axial & Coronal – 3 mm slice - soft & bone - Symmetrical position



• ANATOMY



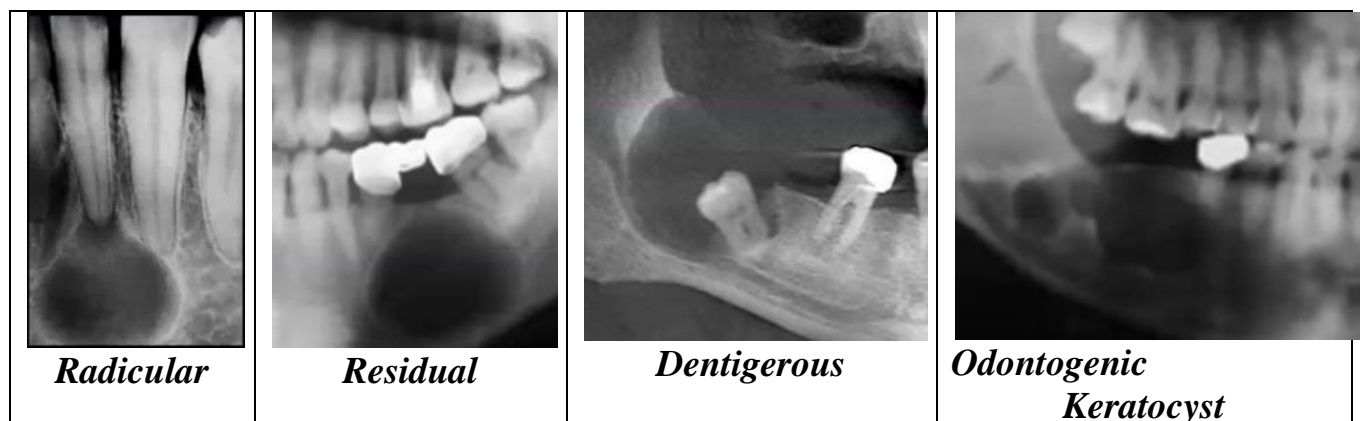
• MANDIBULAR LESIONS

- CYSTS
- TUMORS
- Others

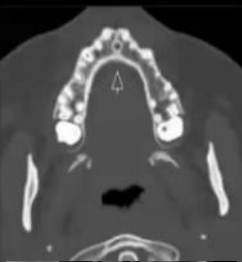

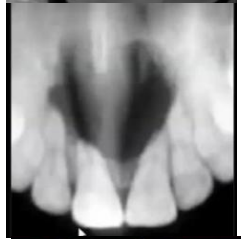


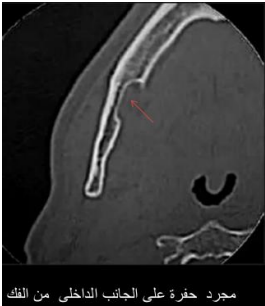

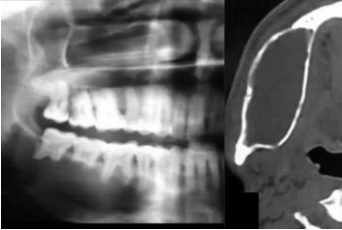
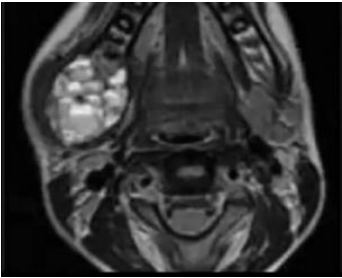

| MANDIBULAR LESIONS | | | | | |
|---|---|---|------------|-----------|--------|
| CYSTS | | TUMORS | | | OTHERS |
| ODONTOGENIC <i>Related to a tooth mostly Diseased</i> | NON - ODONTOGENIC <i>Not related to tooth</i> | Benign | | Malignant | |
| | | Odont. | Non | | |
| Radicular | Simple | = Lytic Ameloblastoma Myxoma | Osteoma | | |
| Residual | ABC | | Chondromas | | |
| Dentigerous | Stafine | = Sclerotic Cementoma odontoma | Giant Cell | | |
| Odontogenic Keratocyst | Incisive | Mixed | | | |

SUMMARY OF JAW IMAGING

| ODONTOGENIC CYSTS <i>Related to a tooth - mostly Diseased</i> | | | | |
|---|------------------|----------------|---|--|
| | Incidence | Age | Site | Discretion |
| <i>Radicular</i> | Commonest 65% | 30:50y | Cyst at <u><i>root of caries tooth</i></u> | Rounded – unilocular - <10mm |
| <i>Residual</i> | | | Cyst related to <u><i>removed tooth</i></u> | |
| <i>Dentigerous</i> | Common | Young adult | Around crown of un-erupted tooth | Painless – usually 3 rd molar Root mostly outside cyst |
| <i>Odontogenic Keratocyst</i> | 11% | 20 :40 th | Mostly to impacted tooth | Multilocular ,Cheesy Material - @ ramus & angle |
| <i>Calcifying Odontogenic</i> | | | | |
| | | | | |

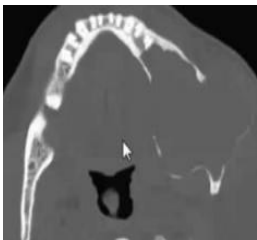

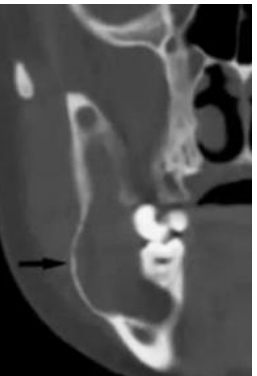










| Non ODONTOGENIC CYSTS | | | | |
|-----------------------|-------------------------|-----|--|---|
| | | | | Not Related to a tooth |
| Incisive | Commonest Non odont. | M>F | | At Incisive canal Lucent cyst between incisors |
| Stafine | | | | Not True Cyst Just Medial Bone defect |
| Simple | Rare | | | Lucent Lobulated Cyst D.D.Odontogen.Keratocyst |
| ABC | | | | Lytic - Expansile MRI fluid-fluid levels |

| Incisive | Stafine | ABC | Simple Bone Cyst |
|---|--|---|---|
|     |    |   |  |

SUMMARY OF JAW IMAGING

| ODONTOGENIC BENIGN TUMORS <i>Lytic – Sclerotic - MIXED</i> | | | | |
|--|---------------------------|---------------|--|--|
| | Incidence | Age | | Discretion |
| Ameloblastoma "Adamantinoma" | Commonest Benign tumor | 30:50y | 80 % Ramus Mandible 5 : 1 Maxilla | Hard-painless-loss teeth Unilocular-Expansile-lytic |
| Odontogenic Myxoma | | | <i>Tennis Racket Appearance</i> | Slow – Expansile – Lytic Multi locular septated |
| Odontoma | | 2nd Decade | 50% with impacted tooth | 1:3cm - Painless Benign , may local aggressive Lucent with central calcification |
| Cementoma | Rare | | Mostly 1 st molar Attached to root | Well defined Opaque mass – surrounded hallow |

| Ameloblastoma | Odontogenic Myxoma | Odontoma | Cementoma |
|--|--|---|--|
|    |    |    |   |

Expansile Lytic Cyst in MandibleWhat is your Diagnosis?

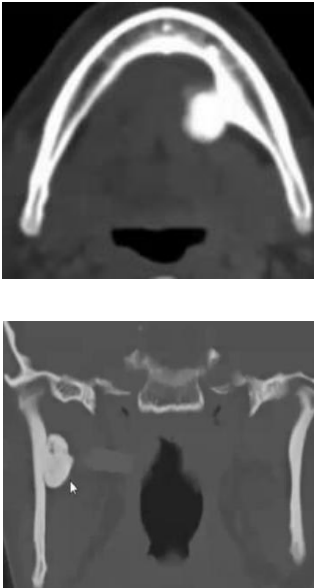
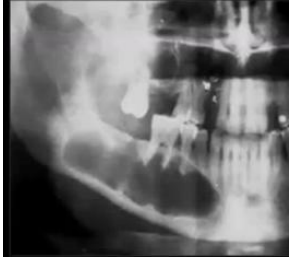
Adamantinoma or Odontogenic Keratocyst

Answer

Adamantinoma i.e . " Ameloblastoma As it much more common

SUMMARY OF JAW IMAGING

| NON ODONTOGENIC BENIGN TUMORS | | | | |
|--------------------------------------|-----------|---|--|--|
| | Incidence | Age | | Discretion |
| <i>Osteoma</i> | | | | Ball of Bone |
| <i>Chondromas</i> | | | | + Matrix calcification |
| <i>Giant Cell</i> | | 2 nd : 3 rd Decade | D.D. Ameloblastome Odontogenic Keratocyst | Lucent Small unilocular, then enlarge multilocular |

| | | | |
|--|--|---|--|
| <p>Osteoma</p>  | | <p>Giant Cell Granuloma</p>  | |
|--|--|---|--|

MALIGNANT JAW TUMORS

- Malignant Criteria :
 - Cortical destruction
 - Peri-osteal reaction
 - Extraosseous extension
 - Mets.
- Malignant Tumors of Jaw:
 - ***Osteosarcomas***
 - ***Chondrosarcomas***
 - ***Malignant ameloblastoma "rare 1%"***
 - ***Mets "mandible is common site of mets"***

