32 y/o male with increasing size of mandibular mass

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Ameloblastoma
Ameloblastoma

Sagittal CT image of the mandible shows an expansile, cystic lesion within the body of the left hemimandible associated with marked cortical thinning and disruption.
Ameloblastoma

Coronal & axial images of the mandible: An expansile, multiloculated, cystic lesion within the body of the left mandible associated with marked medullary expansion & cortical thinning. Focal areas of cortical disruption are also present. Also note characteristic extensive tooth root absorption (arrow).
Ameloblastoma

Imaging Features

- Usually multicystic, appears multiloculated with internal septations
  - Thick & curved bony septa form soap-bubble appearance & is a diagnostic clue
  - Irregular, scalloped
- Unicystic with a single cystic cavity.
  - Unilocular, well circumscribed, and well-corticated lucent lesion
  - Often associated with the crown of an unerupted or impacted tooth
  - Lack of solid components or internal septa differentiates it from dentigerous cyst
- Hallmark is extensive tooth root absorption of adjacent teeth
  - Unique to Ameloblastoma (among bubbly lesions)
  - Indicates the aggressive behavior
Ameloblastoma

General Features

- Hard, painless facial or intraoral swelling
- Benign but locally aggressive
- Account for 10% of odontogenic tumors
- Usually (80%) located in the mandible
- Generally 3rd-4th decades, M = F.
- Solid/multicystic in 85% of cases
  - Most aggressive and highest recurrence rate
Ameloblastoma

General Features

• Unicystic variant
  – Usually associated with the crown of an unerupted or impacted tooth
  – May resemble a large dentigerous cyst or odontogenic keratocyst
    • Dentigerous cyst: internal solid components, no tooth root destruction
    • Odontogenic Keratocyst: less expansile

• Malignant potential
  – The presence of more aggressive features such as solid enhancing components, papillary projections, and extraosseous invasion suggest malignancy
  – Ameloblastic carcinoma: Histologic criteria of malignancy
  – Malignant ameloblastoma: Histologically identical to ameloblastoma, but metastatic clinically
References
