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.
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
