47 M with 2 months of left jaw pain with manual pressure

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DDX

Ameloblastoma
Keratocystic odontogenic tumor
Odontogenic myxoma
Central giant cell granuloma
Dentigerous cyst
Ameloblastoma

Benign but locally aggressive neoplasm arising from odontogenic epithelium

Multicystic/solid subtype most common

Slow growing, present in 3rd to 5th decades

Occur near the angle of mandible in region of 3rd molar tooth

If maxilla involved, tumor located in premolar region and can extend into maxillary sinus
Ameloblastoma imaging

Well-defined, expansile “soap-bubble” lesion, no matrix calcification

Pericoronal relationship to impacted and displaced molar tooth

Can erode cortex and cause resorption of adjacent teeth roots

Strong enhancement of solid tumor components and cyst wall

Ax T1 +C
Keratocystic odontogenic tumor

Odontogenic cyst with aggressive behavior and high recurrence rate

Arises from dental lamina

Present in 2nd to 4th decades

Often associated with unerupted tooth

Majority are solitary, 5-10% of cases multiple KOTs may be associated w basal cell nevus syndrome
KOT imaging

Posterior mandible, 3rd molar region
Well-defined cystic or scalloping shape
Usually unilocular
More growth along length of bone in body of mandible
Tooth displacement and root resorption
No solid enhancement but may have thin enhancing rim
Restricts diffusion from increased viscosity
High T1 from cholesterol and keratin
Odontogenic myxoma (myxofibroma)

Uncommon benign tumor of odontogenic ectomesenchyme

2nd to 3rd decades

Imaging:

Mandible > maxilla, premolar-molar regions
Multilocular radiolucency with thin internal septa
May be well defined or ill defined
Less bony expansion than ameloblastoma
Greater extension between roots without resorption
Central giant cell granuloma

Benign nonodontogenic reactive intraosseous lesion of jaw
3rd to 5th decade

Imaging:
Expansile lesion, poorly corticated periphery
Loculated with granular, wispy septa
Mandible > maxilla, anterior to 1st molar
Root resorption
T1/T2WI hypo-isointense
Heterogeneous enhancement
Dentigerous cyst

Benign developmental jaw cyst associated with crown of unerupted/impacted tooth

Imaging:

Well-circumscribed, usually corticated expansile unilocular radiolucency in pericoronal location
Mandibular 3rd molar > maxillary 3rd molar > maxillary canines
Size greater than normal follicular space (3mm)
Uncommonly resorbs roots
No enhancing mural nodule
References


Statdx