KREP

2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

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JJMMC, DAVANGERE

<u>PRESENTOR:</u> Dr Arjun , PG resident

19Y old male patient presented with:

- C/o swelling of right sided cheek region since 1month
- C/o of excessive sneezing on dust exposure since 6months
- C/o bilateral nasal obstruction since 6months
- No h/o facial pain, diplopia & neurological defictis over face region

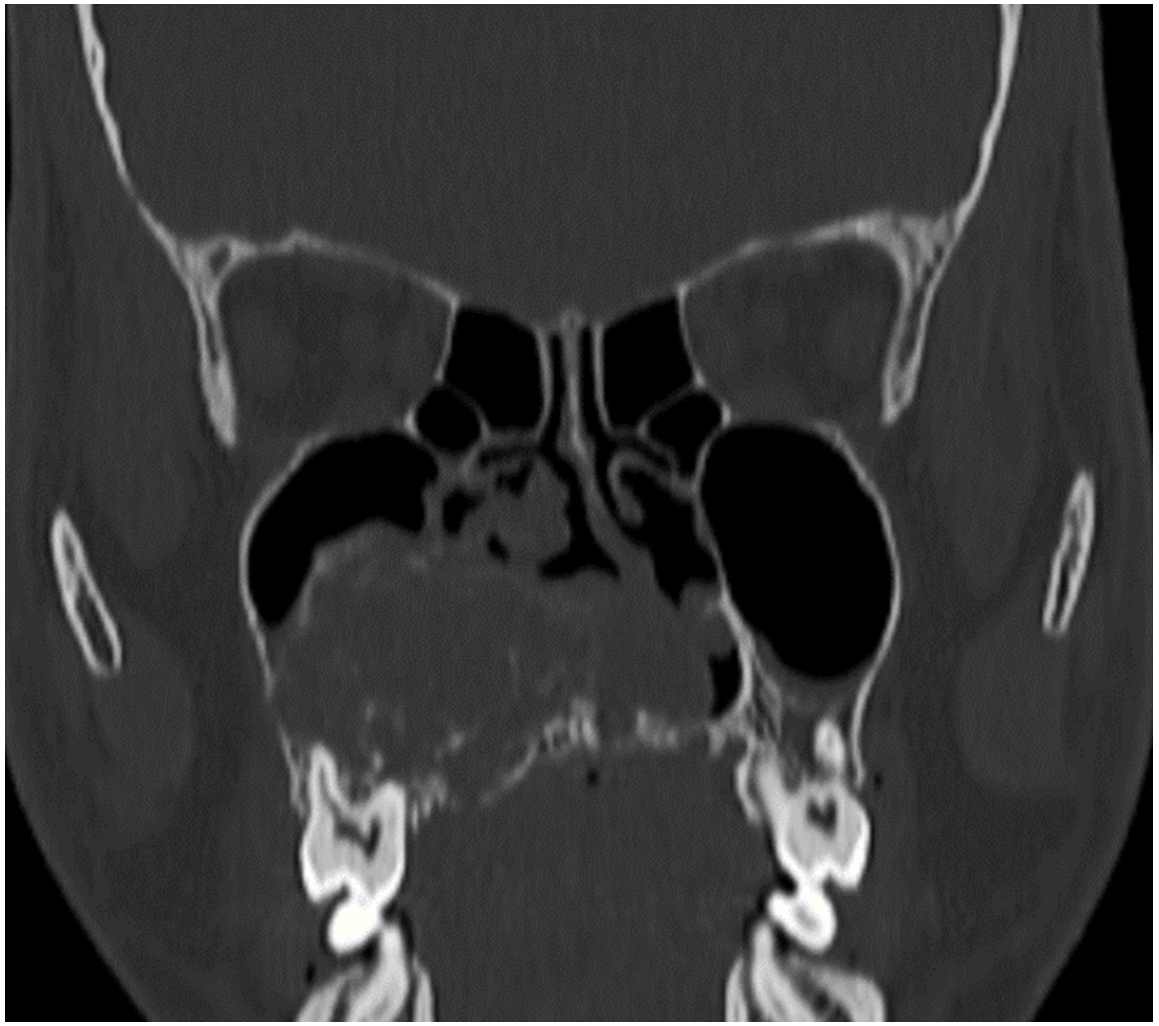
Past history:

- H/o ? maxillary sugery was done before 12years back (No document available)

On local examination: Right maxillary region diffuse non tender swelling noted , with loss nasolabial fold right upper canine and premolar missing tooth noted & diffuse gum hypertrophy on right upper gingiva

Waters view radiograph – E/o well defined soft tissue lesion noted in right maxilla region extending into right maxillary sinus and nasal cavity with erosion of medial wall of maxillary sinus and scalloped margin noted in lateral border of maxilla, superior lateral displacement of right upper canine and premolar tooth Hypo-pneumatized right frontal sinus

Evidence of well defined solitary multilobular expansile mixed soft tissue density lesion measuring 4.5x5.4x4.6cm epicentered in right maxilla involving right periapical region of right upper canine and pre molar teeth . The lesion causing cortical thinning and multiple thin internal septa giving soap bubble appearance

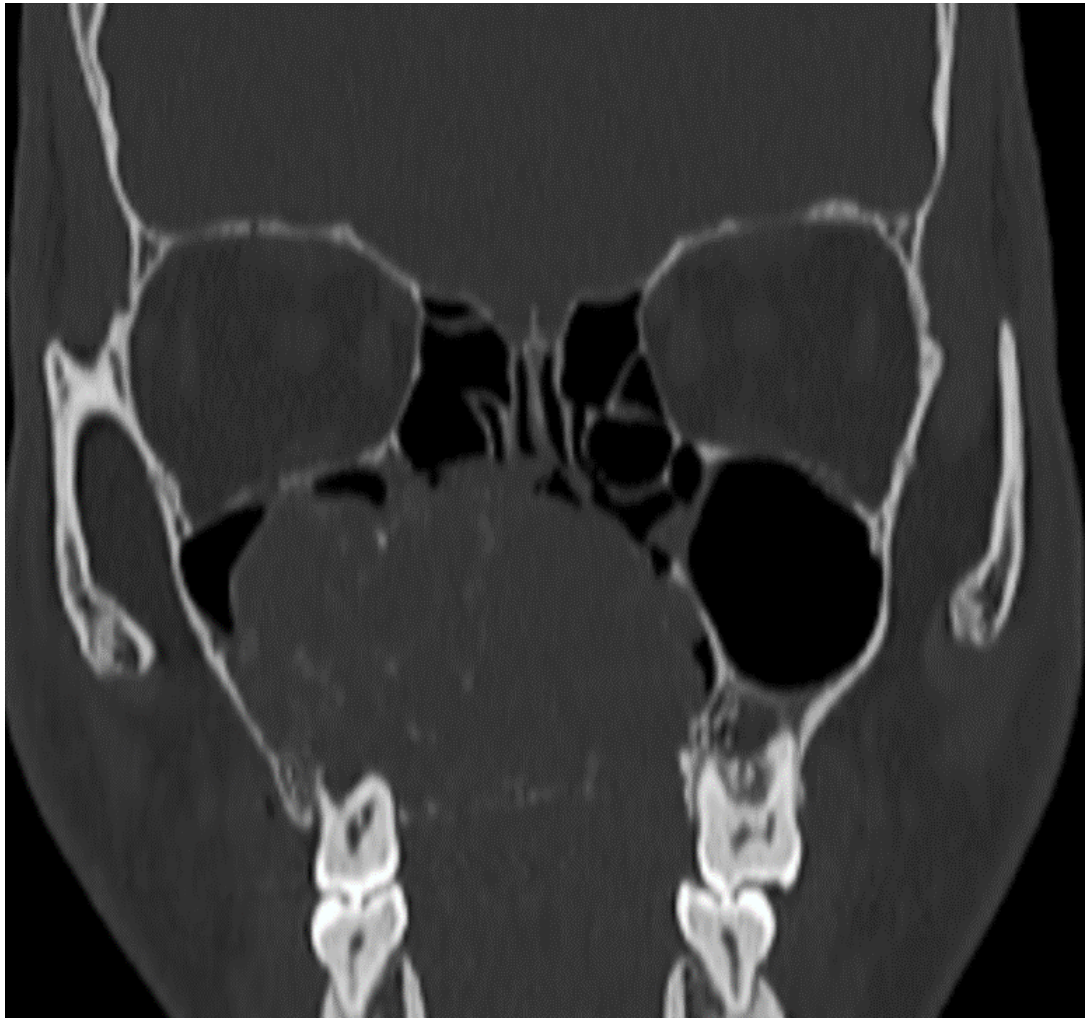


Extensions:

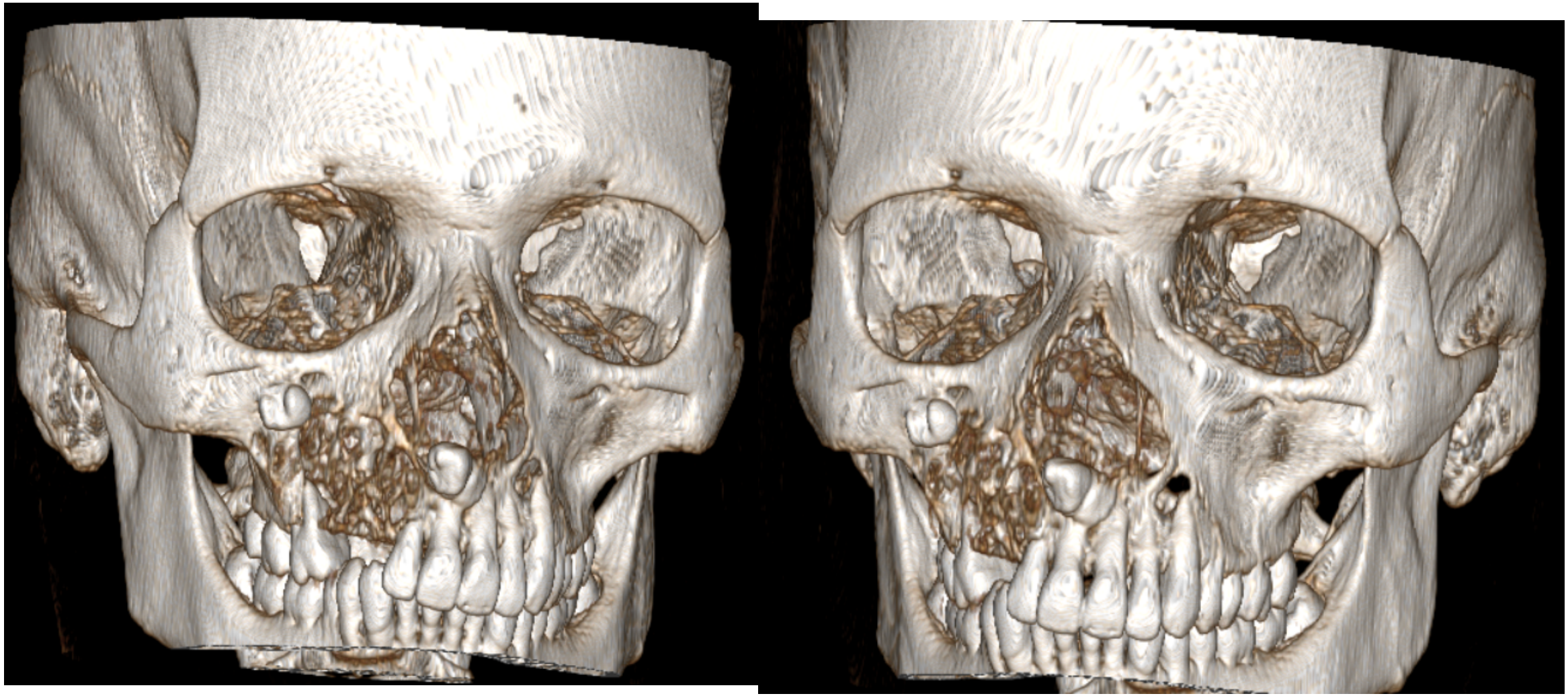
Antero-inferiorly: root resorption of in the region of right upper canine & premolar tooth & erosion of hard palate

Laterally into right maxillary sinus

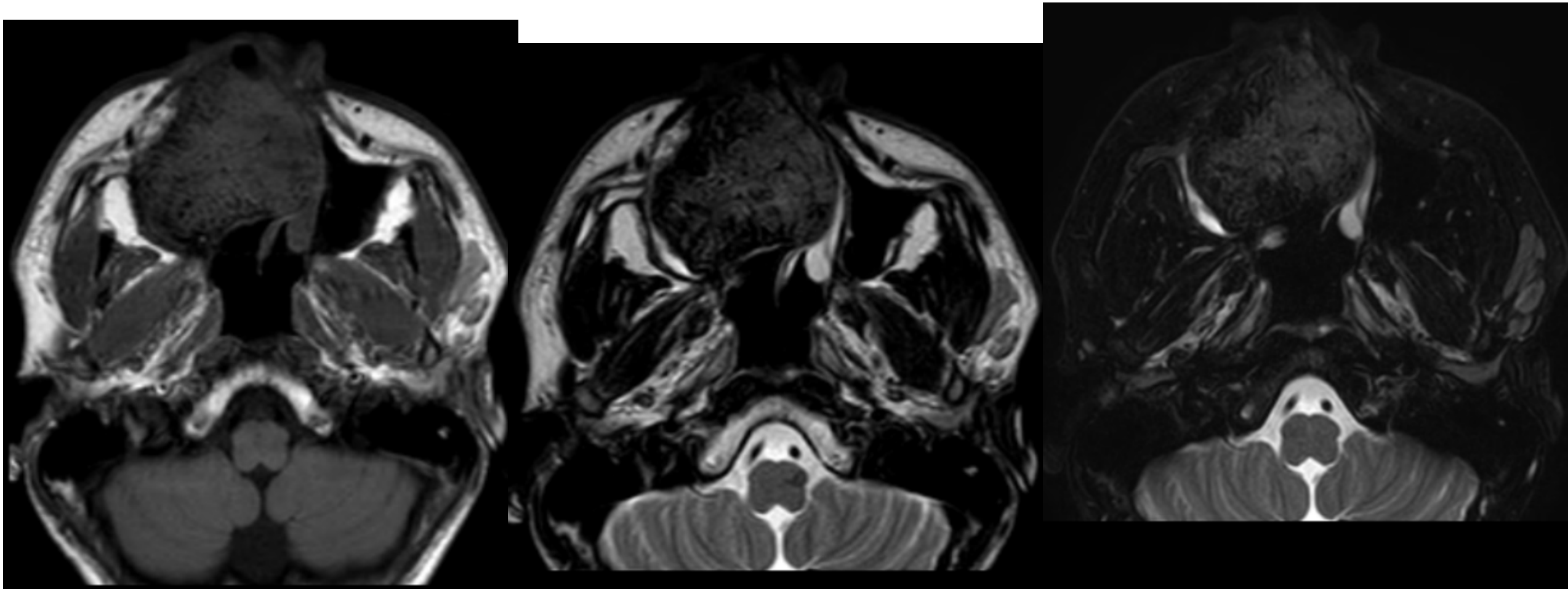
Med: lateral displacement of nasal septum and abutment of left inferior turbinate



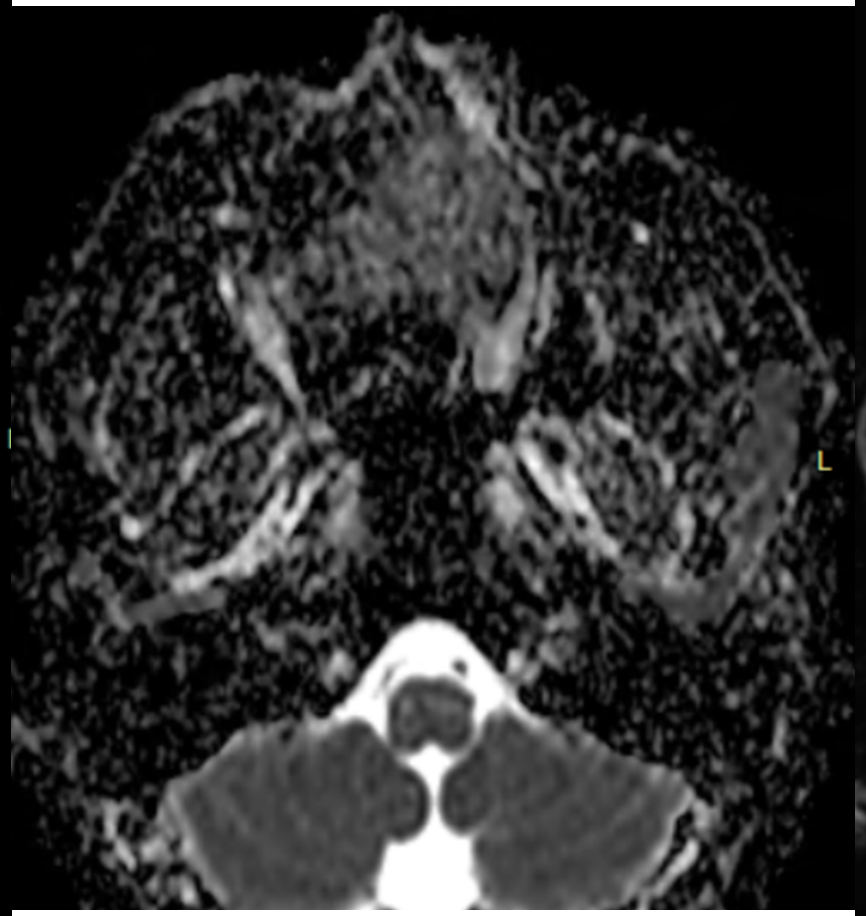
Superior-: lesion extending nasal cavity abutting right middle & inferior turbinate with erosion of medial wall of maxillary sinus, superior-lateral displacement of unerupted right upper canine and premolar tooth



On post contrast – lesion shows avidly enhancing of HU:156



T1W T2W T2SPIR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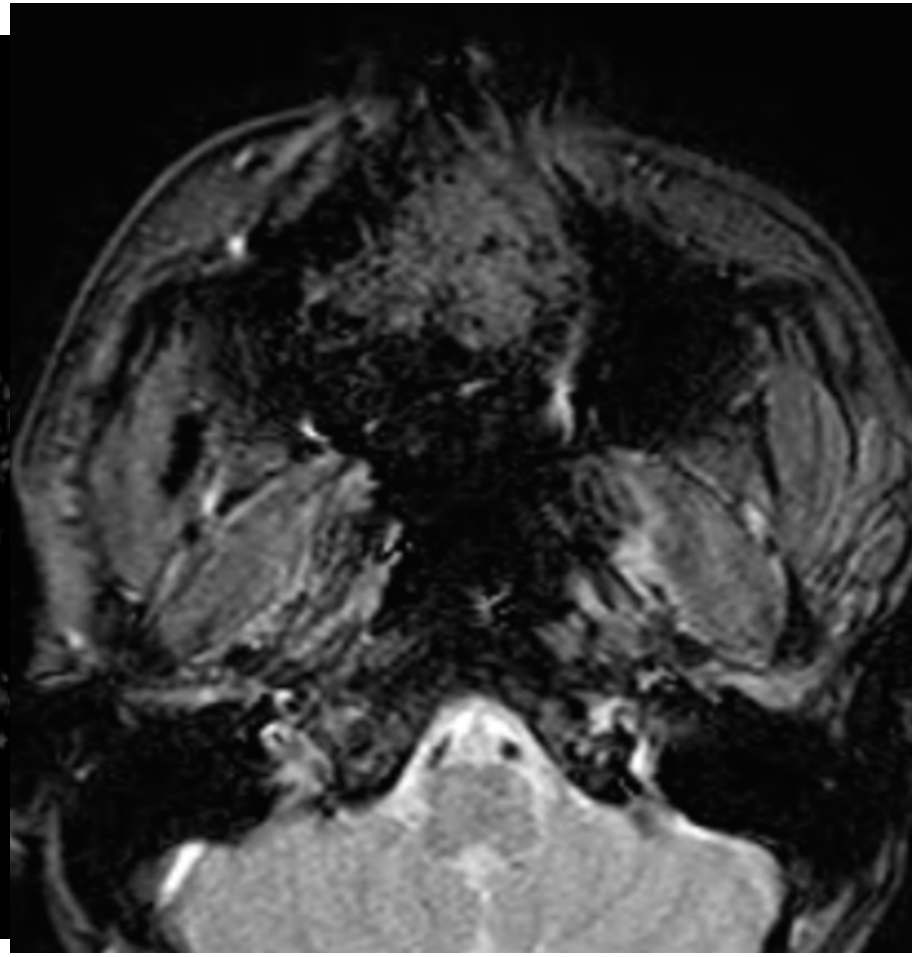

IMPRESSION:

- A Solitary well defined multilobulated expansile mixed soft tissue density lesion which is showing T1 & SPIR iso-hypointense , T2 hypointense lesion with epicentered in right maxilla involving right periapical region of right upper canine and pre molar teeth with cortical thinning giving soap bubble appearance
- → Differentials to be considered:
- 1. Ameloblastoma
- 2. Giant cell reparative granuloma
- 3. Odontogenic myxoma

FOR LABORATORY USE ONLY | HP. No.

Done by : Dr. Sai / Dr. Mallsi (6/11/24) | Any remarks :

Special instructions : AB AB

Deeper : 6/11/24 | Special stain : | Other :

Slides filed on: | Blocks filed on :

Filed by : | Filed by :

Macroscopy :

R1D ~~unmy~~ tooth attached ST bits Alt MLS 2 x 1 cm

(A) ST bit (1) (Uninterrupted tooth)

(B) ST bit - (1)

R1E (cysed bld bood)

Microscopy :

S/s from A, B ST bit attached to tooth shows ill defined lesion composed of ~~Stromal Cells~~ Fibroblastic Stromal cells with numerous ~~Scattered~~ osteoclastic giant cells. throughout the lesion there is seen ~~Bony trabeculae~~ new bone at the peripheral . one of the bit shows fibrosis with aggr of hemosiderin laden macrophages no mitotic activity.

IMP: central giant cell granuloma

(?)

Date : 11/11/24

Signature of the Pathologist

(Dr. Soumya B.M)

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Central giant cell granuloma

- Central giant cell granuloma is believed to be a single lesion in a spectrum of altered vascular and reactive responses within bone
- Initially, a giant cell reparative cyst manifests as a small, unilocular radiolucent lesion that can mimic an odontogenic cyst. With development, however, the lesion becomes multilocular, exhibiting a honeycomb appearance.
- The lesion most frequently occurs in girls and young women during the second and third decades of life
- M/c location Anterior mandible

Differentials:

1.Aneurysmal bone cyst:

- ~15% of CGCG contain intralesional aneurysmal bone cyst
- Majority of lesions in molar region of mandible
- MR: Fluid-Fluid level

2. Ameloblastoma:

- M/c in tooth bearing molar regions, mandile>maxilla
- CT: Multiloculated,lucent expansile mass, Septations tend be coarser that CGCG

3.Brown tumour:

- M/c seen in hyperparthyroid patients
- CT & MR appearance appear indentical to CGCG

4. Ossifying fibroma:

- M/c in premolar region of mandible
- CT: Calcified/ossified mass with lucent capsule

Table 5
Prevalence of Solid Benign Mandibular Lesions

Most common
Odontoma
Fairly common
Ameloblastoma
Periapical cemental dysplasia*
Florid cemental dysplasia*
Ossifying fibroma*
Less common
Calcifying epithelial odontogenic tumor (Pindborg tumor)
Ameloblastic fibroma
Odontogenic myxoma
Cementoblastoma
Rare
Adenomatoid odontogenic tumor
Juvenile ossifying fibroma*
Clear cell odontogenic tumor
Squamous odontogenic tumor
Calcifying odontogenic cyst†

*Nonodontogenic origin.
†Contains cystic and solid components.

Table 6
Prevalence of Solid Malignant Mandibular Lesions

Most common
Squamous cell carcinoma arising from adjacent mucosa*
Fairly common
Multiple myeloma and plasmacytoma*
Lymphoma*
Leukemia*
Metastasis*
Mucoepidermoid carcinoma arising from adjacent mucosa*
Adenoid cystic carcinoma arising from adjacent mucosa*
Rare
Nonodontogenic sarcoma*
Odontogenic carcinoma (ameloblastic carcinoma, etc)
Odontogenic sarcoma
Odontogenic carcinosarcoma

*Nonodontogenic origin.

Thank you