



RADIOLOGY DEPARTMENT

**Targeted cancer
treatment (TACE)**

Acute Stroke

Aortic aneurysms

**Biliary Stenting
PTBD
TIPS**

Lower Limb Angioplasty

**Brain Aneurysms &
AVMS**

Interventional Radiology
Here are just a few
We treat many conditions ...

**Dialysis
Access & AVF
Salvage**

Internal Bleeding

Varicose veins

**Fibroids &
PPH**

RFA Ablation

**Thrombolysis
Arterial & Venous**

**Vascular
malformations**

Interventional Radiology Courses offered :

DM, Interventional Radiology
Fellowship in Interventional Radiology

AN UNUSUAL COMPLICATION OF THE TOOTH EXTRACTION

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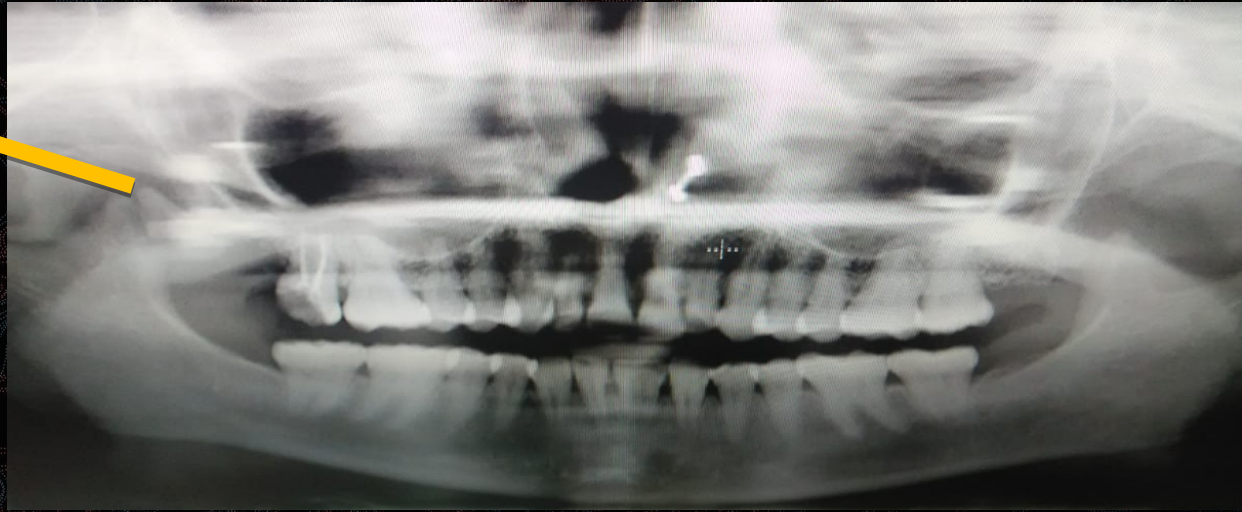
CLINICAL PROFILE

36 year old female patient, C/O-

- Pain and swelling in right cheek since 10 days
- Inability to open mouth
- H/ o recent tooth extraction (OUTSIDE) and complaint started soon after

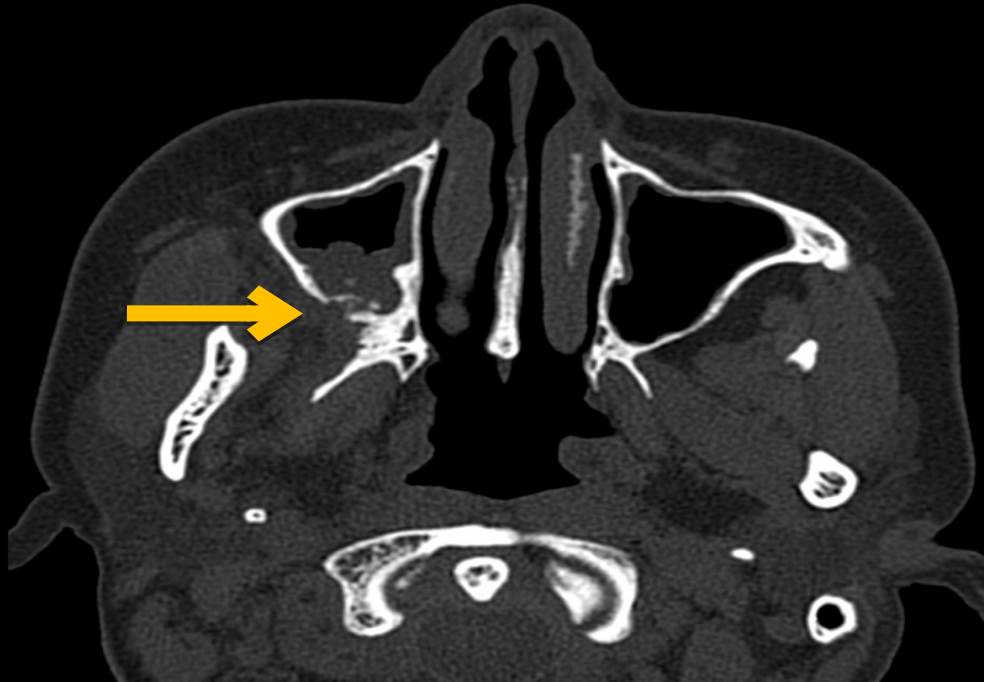
Orthopantomogram (OPG)

- Dislodged root piece with localization in right infra temporal space.

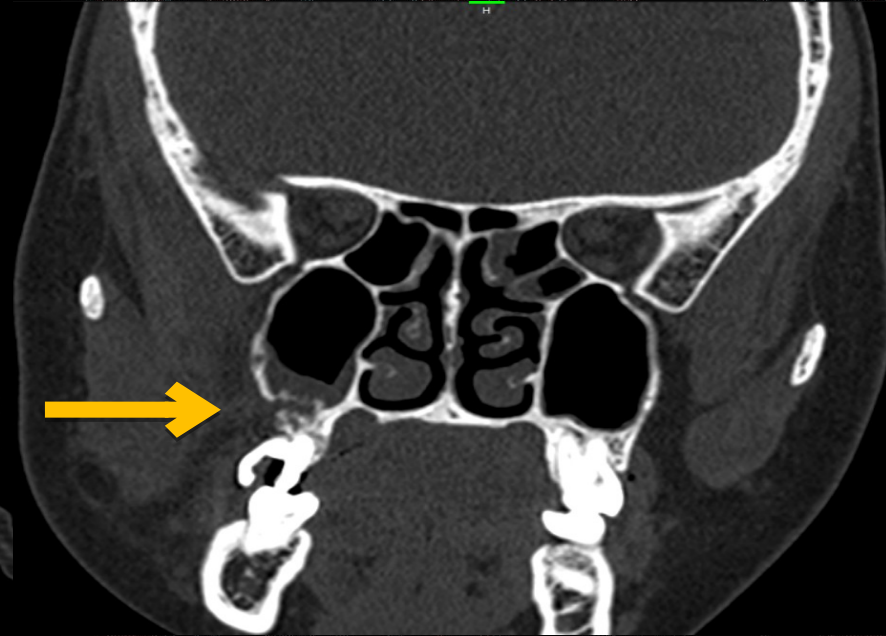


CT FACE

- Bony defect noted in right maxillary alveolus with multiple small bony fragments



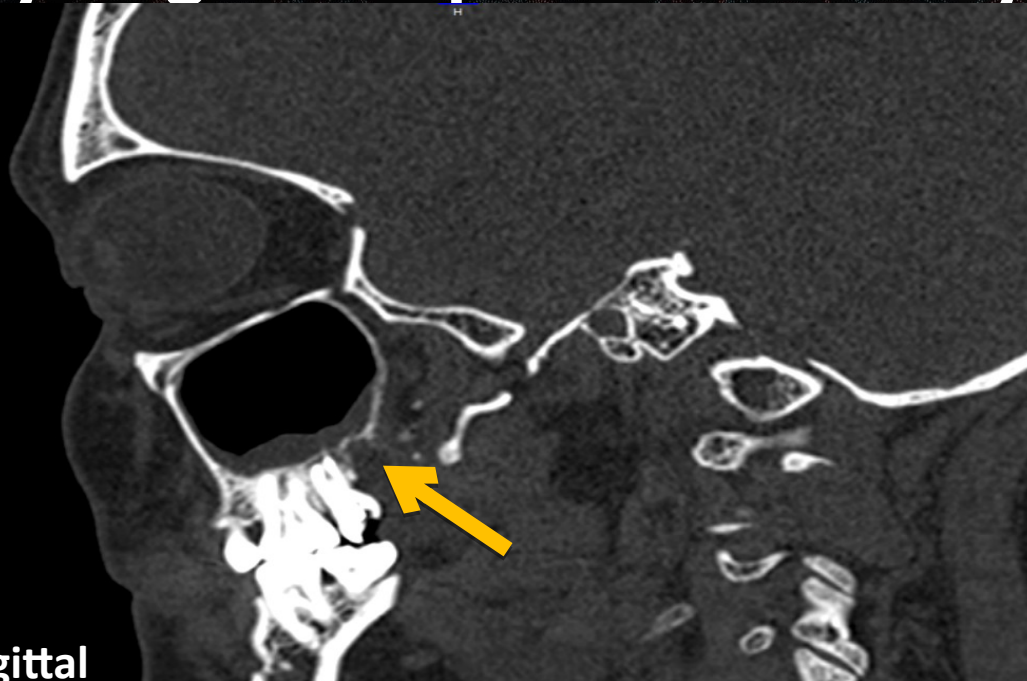
Axial



Coronal

CT FACE

Bony defect in maxillary alveolus with displaced small bony fragments postero-laterally

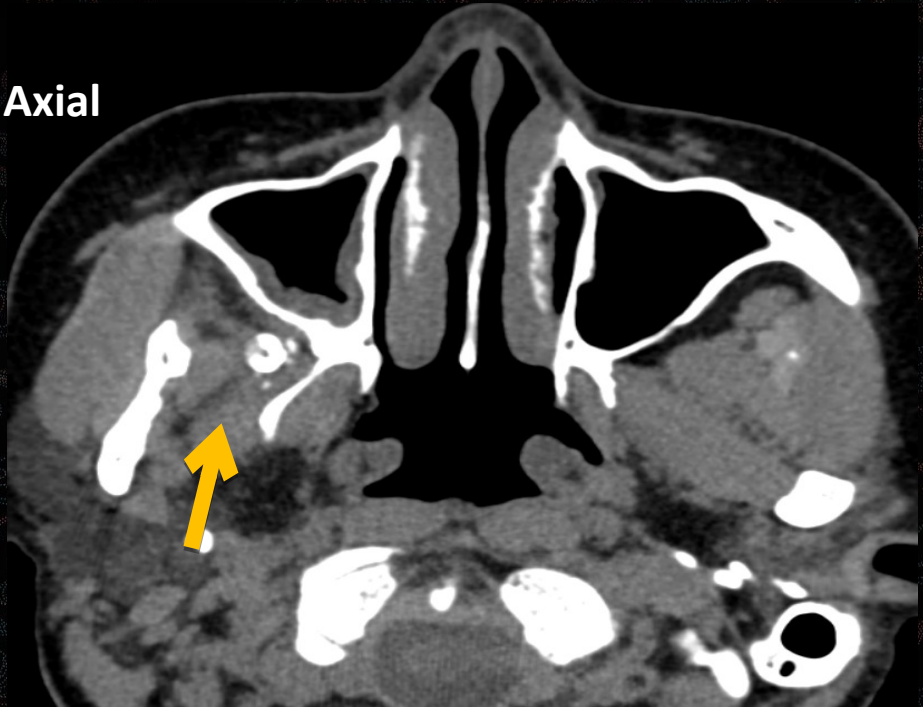


Sagittal

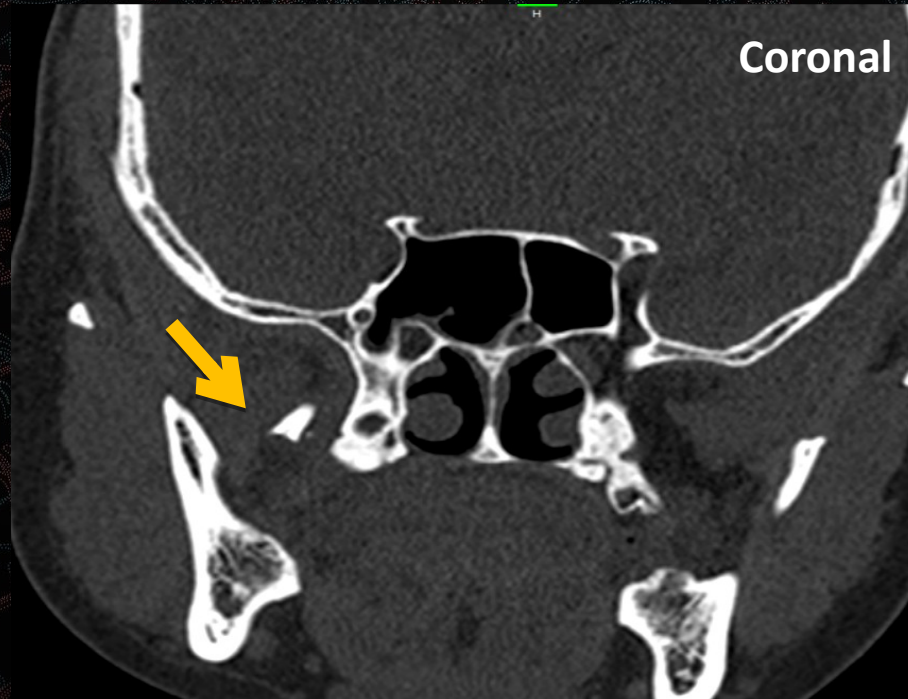
CT FACE

- Ill-defined soft tissue infiltrates in right retro antral fat and small fragment of molar tooth in right infra-temporal fossa

Axial

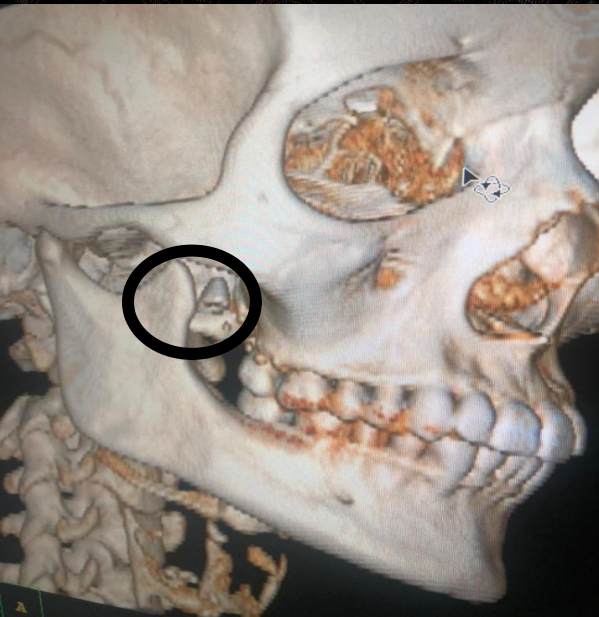


Coronal



CT FACE 3D RECONSTRUCTION

3-D anatomical localization of the tooth fragment



IN SUMMARY CT FINDINGS

- A small fragment of molar tooth of size 6x6x7mm in right infra-temporal fossa in retro antral region just lateral to lateral pterygoid muscle with multiple small bony fragments adjacent to it.
- The molar tooth fragment is impinging on right lateral pterygoid muscle.

DISCUSSION

❑ Few of the frequently confronted complications in the oral and maxillofacial surgery units are-

- Tooth root fracture (20.4%)
- Infection, Hemorrhage (10-15%)
- Trismus (18%)
- Dry Socket (11.7%)
- Luxation of adjacent tooth (1.2%)
- Fracture of maxillary tuberosity (0.87%)
- Perforation of the maxillary sinus (0.75%)
- Displacement of the roots or tooth into the maxillary sinus. (0.5%)

DISCUSSION

Only few cases of accidental displacement of molars into adjacent anatomical spaces during surgical interventions have been reported, like-

- **Infratemporal fossa (0.04%)**
- **Pterygomandibular space,**
- **Buccal space, or**
- **Lateral pharyngeal space,**

DISCUSSION

- Maxillary third molars uncommonly displaced through the periosteum into the infratemporal fossa just adjacent to the lateral pterygoid plate and inferior to the lateral pterygoid muscle.
- Excessive force application and incorrect use of elevator during the attempt to retrieve the tooth may further displace the tooth upward into the skull base carrying greater risks for morbidity.

DISCUSSION

- Because the exact localization of the displaced tooth is impossible to determine clinically, radiographic examination is indicated.
- The superimposition of the anatomic structures located at the site of the infratemporal and pterygopalatine fossa may disorient the diagnosis in the case.
- So as to allow to determine the precise and detailed location of the dislodged tooth computed tomography examination (CT) is needed.

DISCUSSION

❑ If this problem left unattended may lead to complications like –

- Trismus,
- Sub-masseteric abscess,
- Cervico-facial infections and
- Ludwig's angina (Life threatening)

DISCUSSION

- ❑ Many surgical approaches have been used for the retrieval surgery of displaced maxillary third molar into the infratemporal fossa area such as-
 - Long incision in the buccal sulcus
 - Gillies's (Temporal) approach
 - The caldwell-luc approach through the maxillary sinus after removal of the whole posterior wall, and resection of the coronoid process.

DISCUSSION

❑ These surgical techniques are associated with with postoperative complications like –

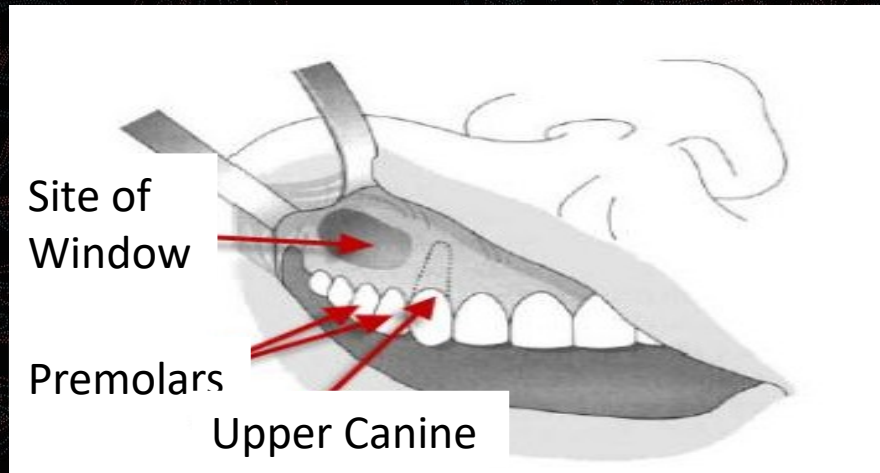
- Trismus
- Injury to otic ganglion.

❑ **Prevention of infratemporal tooth displacement:**

- i. Balanced application of force during tooth extraction
- ii. Expertise of the surgeon.

DISCUSSION

- In this case, displaced tooth was extracted through Caldwell-Luc operation without any complications.



TAKE HOME MESSAGE

- 3D CT Face helps in accurate localization and gives appropriate anatomical detail in case of displaced molar tooth into infra-temporal fossa for proper surgical planning and avoiding possible complications.

REFERENCES

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THANK YOU