

原文題目(出處)：	The use of cone beam computed tomography in the management of displaced roots into the maxillary antrum” Oral Surg 2012;5:18–21.
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內文：

Abstract:

- Displacement of molar teeth into maxillary antrum: intraoperative complication during extraction
- Norm: Panoramic, intraoral, occipitomental radiography
- Cone beam computed tomography (CBCT) in management of displaced roots in antrum.

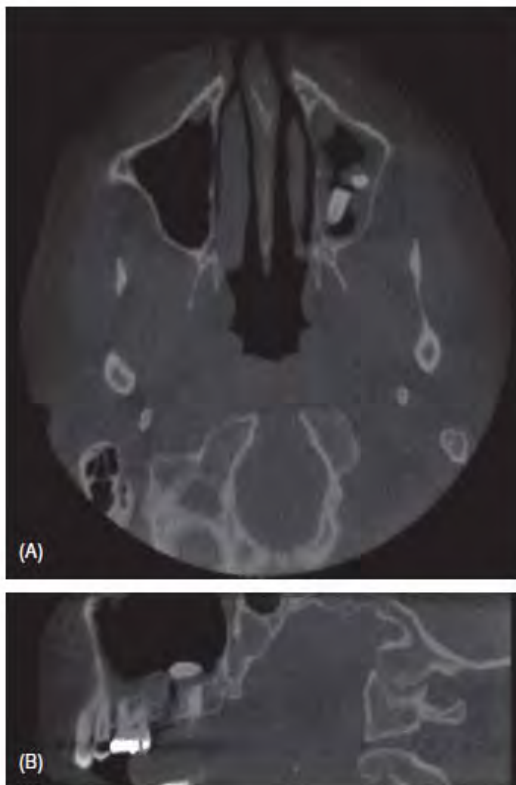
### Case Reports

#### Case 1.

- 48 year old male
- Referred to ER for displaced roots within left maxillary antrum following an attempted extraction of upper left first molar tooth
- Pain over left cheek and sense of air running through left antrum
- Panoramic: probable displaced roots in left antrum
- CBCT (classic iCAT) 6cm 20sec 120KV 0.4mm voxel
- Roots removed via Caldwell-Luc procedure under local anesthesia



Figure 1 Cropped panoramic radiograph showing the presence of two roots within the left maxillary antrum.

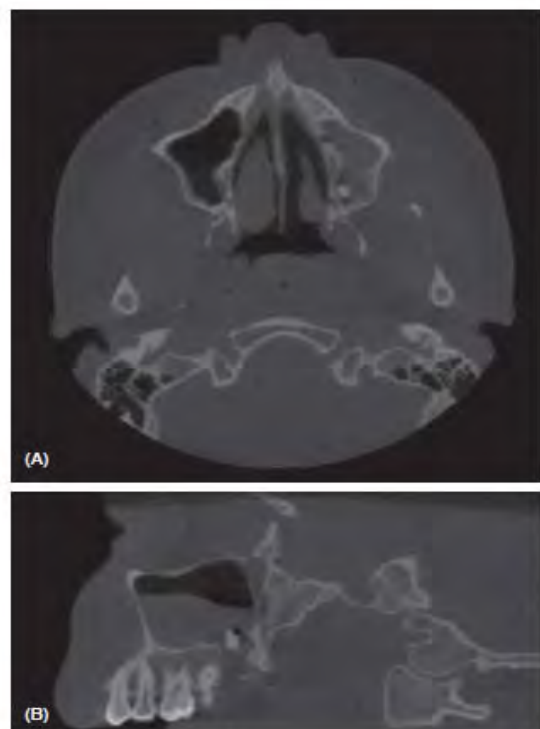


**Figure 2** (A) Axial and (B) sagittal cone beam computed tomography images showing the loss of the corticated floor of the maxillary antrum in the left first molar region and the exact position of the two roots within the left maxillary antrum.

- ⤴ Curved root of 28 fractured and displaced into maxillary antrum
- ⤴ Panoramic: radiopacity superimposed on zygomatic buttress
- ⤴ CBCT 8cm height
- ⤴ Root removed under general anesthesia



**Figure 3** Cropped panoramic radiograph showing the upper left third molar root superimposed on the zygomatic buttress.



**Figure 4** (A) Axial and (B) sagittal cone beam computed tomography images showing the exact position of the displaced root and the loss of the corticated floor of the maxillary antrum.

## Discussion

- △ Oroantral communication (OAC) commonly occurs with fractured root displaced into antrum or after tooth extraction
- △ May heal spontaneously if left untreated
- △ May epithelialise and persist as oroantral fistula
- △ Visualisation of roots difficult on occipitomenal radiographs: superimposition of petrous temporal bone
- △ Blood or fluid obscure root image
- △ Localization difficult with traditional radiography
- △ Case 1: CBCT to confirm number of roots in antrum
- △ Case 2: CBCT to confirm presence of root in antrum
- △ Dosages:
  - Occipitomenal: 22 uSv
  - Panoramic: 20 uSv
  - Periapical: 5 uSv
  - CBCT 6cm height: 36.5 uSv
  - CBCT 8cm: 50 uS
- △ Limitations of CBCT: low contrast resolution
- △ Difficult to distinguish soft tissues
- △ Root high contrast
- △ Suggest usage for situations where conventional imaging is equivocal for root displacement into antrum
- △ Lower dosage: may be used as initial choice of imaging

題號	題目
1	Which maxillary tooth extraction is the cause of most of the oroantral fistulas (OAFs)? (A) Canine (B) 1 <sup>st</sup> molar (C) 2 <sup>nd</sup> molar (D) 3 <sup>rd</sup> molar
答案 (B)	出處：Differential diagnosis of oral and maxillofacial lesions, 5 <sup>th</sup> edition. p.214
題號	題目
2	Which of the following is the most common symptom for OAF patients? (A) Passage of fluids from oral cavity into nose (B) Eversion of antral polyp through the fistula (C) Aspiration of air into the mouth through the tooth socket (D) Facial pain
答案 (A)	出處：Differential diagnosis of oral and maxillofacial lesions, 5 <sup>th</sup> edition. p.214