COMPLICATIONS OF POSTERIOR MAXILLARY EXTRACTIONS

Robert E Bell DDS
ANATOMY IS DESTINY
DUE TO THE PROXIMITY OF THE TOOTH ROOTS TO THE MAXILLARY SINUS THERE IS AN INCREASED RISK OF COMPLICATIONS
OFTEN PLANE FILM RADIOGRAPHS DON’T DEMONSTRATE THE TRUE EXTENT OF SINUS INVOLVEMENT
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WHAT ARE THE RISKS WITH POSTERIOR MAXILLARY TOOTH EXTRACTION?

• Sinusitis
• Displacement of roots or materials into the sinus
• Oro-antral communication
• Oral-antral fistula
THE MOST COMMON TOOTH INVOLVED IS THE FIRST MOLAR
ANY POSTERIOR MAXILLARY TOOTH CAN BE INVOLVED
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PERIAPICAL ABCESESSES INTO SINUS
SINUSITIS

- Acute
- Chronic
ACUTE SINUSITIS

- Frontal Sinus
- Infected Sinuses filled with Mucus
- Maxillary Sinus
ACUTE OR CHRONIC SINUSITIS OF DENTAL ORIGIN
SYMPTOMS ACUTE SINUSITIS

- Pressure or pain in the sinus area
- Foul smelling discharge from the nose
- Possible fever chills
TREATMENT

• Antibiotics and decongestants (augmentin 500mg or 750 tid) and Sudafed 30 mg tid

• If no resolution ENT referral endoscopic sinus exploration and nasal antrostomy or septoplasty
CHRONIC SINUSITIS CAUSED BY AN INFECTED TOOTH

- Treatment endodontics or extraction
- If extraction higher incidence of oral antral communication
ORAL ANTRAL COMMUNICATIONS AND FISTULAS
SYMPTOMS

• Water into nose
• Pus draining from sinus
• Recurrent sinus infections
• Nasality to tone of voice
• Sinus communications are acute
• Oral antral fistulas are chronic
WHAT TO DO WHEN AN ORAL ANTRAL COMMUNICATION OCCURS

• Most small oral antral communications will close spontaneously with the patient using sinus precautions
• Consider placing a collaplug
• No nose blowing
• Sneeze with mouth open
• No swishing
• No smoking
• No straws
LARGER ORAL ANTRAL COMMUNICATIONS WAY REQUIRE IMMEDIATE TREATMENT

Surgical closure with flap technique

- **Buccal Advancement flap Technique**
  - **Indications:**
    1. Minor communication.
    2. Buccal defect.
  - **Advantages:**
    1. Simplicity.
    2. Lower post-operative pain & discomfort.

**NB:** Not preferred for large communication and recurrent fistula

OAF with clear sinus communication
FOR LARGER COMMUNICATIONS OR FISTULAS MORE COMPLEX TREATMENT IS USUALLY NECESSARY

• 2 or 3 layer closures
• Palatal and buccal flaps
• Vascularized buccal fat pad flaps
Buccal advancement flap
Facet 822. Closure of antro-oral fistula with teeth present by means of rotated palatal pedicle flap.

A. Diagram of palate with fistula and outlining course of anterior palatine artery.

B. Incision for palatal flap. Note the small wedge of tissue removed on the distolingual side of the fistula to allow for flap rotation. Fistulous opening is freshened.

C. Flap rotated and sutured into position. There is a troublesome budge distally.

D. Palatal defect filled with surgical cement pack to permit painless healing.

Note: A palatal incision is made so that the palatine artery will be inside the pedicle flap, thus assuring a good blood supply from the base of the flap. We are not satisfied with our results using this technique, although others are.
Pedicled buccal fat pad
OBJECTS DISPLACED INTO SINUS
SUMMARY

• Most posterior molars have the potential for sinus complications
• The maxillary first molar is the most common tooth for sinus complications
• Possible referral of teeth associated with obvious pneumatization of the sinus
• Small holes may close spontaneously, use collaplug
• Slightly larger holes closure might be attempted with collaplug and a buccal advancement flap
• Larger communications, fistulas, foreign bodies in the sinus should be referred to and oral and maxillofacial surgeon