Improving your Competence and Confidence in Oral Surgery

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Today’s Topics

• Extractions
  – Non-Surgical
  – Surgical
  – Impactions
• Pre-Op preparation
• Intraoperative complications
• Post-Extraction site management

Today’s Topics

• Preprosthetic Procedures
  – Frenectomy
  – Alveoloplasty/ exostoses
• Odontogenic Infections
• Management of Pathology

If we have time...

• Medical issues
  – Diabetes
  – Asthma
  – Pregnancy
  – SBE Prophylaxis
  – BRONJ
  – Anticoagulants
• Implants
Today’s Goals

• Typical GP’s training in Oral Surgery consists of:
  ➢ Lecture course in 2nd year
  ➢ 1-3 weeks in Dental School Clinic
  ➢ 1 week Hospital rotation
• GPR?
• Military?

Strategy

• Mentally visualize the procedure from start to finish
• Anticipate what instruments will be needed, and have them ready/ readily available
• Anticipate complications
• Headlight, loupes
• “Measure twice, cut once”

Exodontia Surgical Setup

• Local
• Retractor(s)
• Mouth prop
• Scalpel
• Periosteal elevator
• Tooth elevator(s)
• Universal forcep
• Curette
• Hemostat(s)
• Suction tip(s)
• Needle holder/ suture
• Scissors
• Gauze

Local Anesthesia
**Local Anesthesia - Blocks**

- Inferior Alveolar
  - Coronoid
  - Gow-Gates
  - Vazirani-Akinowski
- Long Buccal
- Lingual

**Coronoid Approach**

- Supine position with the mouth in a neutral to fully-open position.
- Coronoid notch is identified
- Needle inserted at the middle of the notch
- Advanced to about 2-3 cm until the lateral pterygoid plate is reached
- Tip of the needle withdrawn slightly and redirected posteriorly and inferiorly
- After aspiration, local anesthetic solution is slowly injected.

**Gow-Gates**

- The mouth is opened as wide as possible.
- Needle is inserted at the level of the mesiolingual cusp of Maxillary 2nd molar, along the medial side of the mandibular ramus
- The needle advanced to contact the neck of the mandibular condyle
- Slightly withdrawn, negative aspiration in 2 planes
- 1 carpule injected over 1 minute.
- The point of insertion is much higher than that for an inferior alveolar nerve (IAN) block.
Vazirani-Akinosi

- Closed-mouth
- Limited opening
Less traumatic, lower complication rate.
Less effective than Gow-Gates, longer onset time.

Retractor, teeth in light occlusion
- The needle is inserted over the medial aspect of the mandibular ramus.
- Parallel to the occlusal plane, height of the gingival margin of the 1st, 2nd molars.
- Needle is advanced through the buccinators into the pterygomandibular space.
- Hub of the needle advanced distal to the 2nd upper molar.
- After negative aspiration, 1 carpule of local anesthetic is injected slowly over 1 minute, while withdrawing needle.

Local Anesthesia

- Lidocaine (Xylocaine) 2%
  2% = 20mg/ml
  - Half-life: 7-30 min
  - Duration: 10-20 min
  - Onset: 45-90 sec
  - Metabolism: Liver
  - No Epinephrine: 4.5 mg/kg, up to 300 mg (7.9 carpules)
  - Epinephrine: 7 mg/kg, up to 500 mg (13.1 Carpules)
Carbocaine (mepivacaine)

- 3% - w/o epi (30 mg/ml)
  - Half-life: 1.9-3.2 hr
  - Duration: 2-2.5 hr
  - Onset: 3-20 min
  - Metabolism: liver
- Up to 400 mg (13.3 mL of 3% solution) [7.4 carp]

Local Anesthesia

- Septocaine (articaine) 4%
  - Greater fat-solubility than lidocaine
  - Better bone penetration
  - Half-Life: 44 min
  - Onset: 1-6 min
  - Duration: 60 min
  - Metabolism: plasma carboxyesterase to inactive articainic acid

Septocaine

My Recommendations:
- Use for infiltration
  - Maxillary- buccal/ palatal
  - Mandibular
- Avoid giving mandibular/ lingual blocks

Articaine Max Dose

- 4% = 40 mg/ml
- Oral surgery: 1-5.1 mL of 4% solution; 40-204 mg total dose
- Absolute max: 7 mg/kg (0.175 mL/kg
- 70 kg --> 490 mg --> 12.25 ml --> 6.8 carpules
Marcaine (bupivacaine)
- 0.5 % w 1:200 epi
- Long-acting local anesthetic
- Onset 2 - 10 min
- Avg pulpal anesthesia: 6 hrs
- Avg soft tissue anesthesia 7hrs
- Max: 175 mg

OraVerse (phentolamine)
- Drug initially used for treatment of hypertensive crisis, esp. in pheochromocytoma
- Reversal of soft-tissue anesthesia from local anesthesia with vasoconstrictor
- Dose based on amount of local anesthetic administered
- Administer using same locations and techniques as local anesthetic
  - 1 cartridge local: OraVerse 1 cartridge (0.4 mg)

Surgical Extractions
My Routine:
- Chlorhexidine rinse
- NSAIDs
  - Lodine 400mg
  - 30 min preop
- Antibiotics

Surgical Extractions
- Flap design
- Handpiece
- Root sectioning
- Root retrieval
- Suturing the site
Surgical Flaps

- Purpose of flap is to gain access to surgical site, to obtain adequate visualization of field and avoid trauma to soft tissues.
- Avoid doing surgery “blindly”
- Have a low threshold to lay a flap

Surgical Flap Design

- Should be based on anatomy, blood supply
- Base broader than apex

Surgical Flap Design

- Size of flap depends on purpose
- Flap should be broader at base
- Releasing incision

Extraction Instruments

- Elevators
- Periotomes/Proximaters
- Forceps
- Handy-Dandy instruments
**Elevators**

- Used to
  - Luxate teeth
    - Try to luxate against bone
    - Avoid excessive pressure on adjacent crowns
  - Elevate roots

**Elevators**

- Used to
  - Luxate teeth
  - Elevate roots
- My favorite: 46R
  - Beveled tip
  - Serrated edge

**Elevators**

- Scoop (#49)
  - Upper 3/4ths
  - Separate tuberosity from distal of tooth

**Periotomes**

- Very thin elevators used to sever the PDL attachment of the tooth.
- Atraumatic extractions in the “Esthetic Zone”
- Minimal flap
**Periotomes**

- Instrument blade is placed parallel to root
- Advanced down PDL space
- Expand the socket
- May take time

**Luxators**

**Proximators**

**Extraction Forceps**

- Universal forceps (62, 151) works 90% of the time
- Grasp the tooth as far apically on the root as possible
  - Rotate
  - Luxate
  - Figure-8

**Apical Retention Forceps**

- Thin beaks
- Tapered profile
- Allow instrument to pass deeper onto root surface
Apical Retention Forceps

Atraumatic Tooth Extraction

Physics Forceps

• Precautions:
  - Elderly patients
  - Thin mucosa
  - Blood thinners
  - Collagen vascular disease
  - Diabetics
Lower Molar Forceps - 222

Cowhorn Forceps - 23

Forceps Extraction

**TOOTH**
- Max. Anterior
- Max. Premolar
- Max. Molar
- Mand. Incisor
- Mand. Canine/PM
- Mand Molar

**LUXATION MOVEMENT**
- B-L, Rotation
- B-L
- B
- B-L
- B-L, Rotation
- B-L

Tooth Grabber
**Surgical Handpiece**
- Allow sectioning of tooth and removal of bone
- Does not allow air to vent into the surgical field
- Subcutaneous emphysema

**Subcutaneous Emphysema**

**Surgical Handpieces**
- Straight vs. angled
- Burs - fissure vs. round

**Angled Surgical Handpiece**
- Sabra OMS 45 / Impact-Air 45
  - 45 degree head
  - Air exhausted to rear
  - 400-500K RPM
  - Fiberoptics
  - $700
Angled Surgical Handpiece

• Sabra OMS 105
  – 105 degree head
  – Air exhausted to rear
  – 400-500K RPM
  – Fiberoptics
  – $700

Straight Surgical Handpiece

• Air/ N2 driven, rear exhaust
• Electric
• 100K RPM
• High torque
• $5000

Other Suitable Handpieces

$2500  $1300

Informed Consent

• A discussion with the patient of the potential/ expected
  – Risks
  – Benefits
  – Complications
  – Alternatives, including no treatment
  – Options for Tooth Replacement
  – Option of going to a Specialist
**Informed Refusal**

When a patient refuses a treatment you feel is necessary, and failure to have the procedure may result in life- or health-threatening consequences, the patients should sign a form stating that they have been informed of all of the consequences of their decision.

**Tooth Extraction Categories**

- Non-Surgical
- Surgical
- Impactions
**Surgical Extractions**

• Single-Rooted Teeth
• 2-Rooted Teeth
• 3-Rooted Teeth

• If the tooth does not move with an elevator and forceps, get out the handpiece!

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**Single-Rooted Teeth**

Maxillary/ Mandibular Anteriors

• Atraumatic extraction desirable
• Want to minimize flap reflection and bone removal
• Proximators are ideally suited for this task

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**Atraumatic Flapless Extraction**

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**Use of Proximators**
Two-Rooted Teeth

- Bicuspid / Premolar
- Mandibular Molars

Three-Rooted Teeth

Maxillary Molars

Root Retrieval - Molars

- Cryer / East-West
- Cogswell B
Root Retrieval

- Root tip elevators
  - Trough with 701
- Root tip forceps
  - Steiglitz
- A neat trick

Oral-Antral Communication

- Sinus exposure at surgery
- Immediate management
Alveoloplasty

- Multiple adjacent teeth
- Removal of interdental bone, and contouring of ridge
- Eliminate sharp edges, sore spots

Alveoloplasty

- Rongeur
- Bone File
- Rotary instruments
Suturing

• To reapproximate surgical flaps
• To hold packing in place
• A suture alone does not hold the blood clot in place.

Suture

• Size
  ▪ 3-0: basic
  ▪ 4-0: finer
• Type
  ▪ Silk
  ▪ Gut
    ▪ Plain
    ▪ Chromic
  ▪ Vicryl (PGA)

Closure of Multiple Adjacent Extraction Sites

Transposed Papillae Closure

Transposed Papillae Closure
Transposed Papillae Closure

Alveoloplasty/Transposed Papillae Closure

Frenectomy

- Labial Frenectomy
  - Maxillary
  - Mandibular
- Lingual frenectomy
  - Ankyloglossia

Impacted Teeth

- Third Molars
- The Others (canine, premolar, incisor): Exposure vs. Removal
Impacted Canine

Third Molars

• Lots of controversy
• Patient health issues vs. $$$
• Many different viewpoints
• Periodontal issues
• Improvement in techniques

“Any third molar that has not/will not come into complete, functional occlusion, and can not be easily maintained by the patient, should be removed.”

• Best time: roots 50%-75% developed
• Earlier is better than later - “It’s downhill after 25”
• > 35 years old, the benefits must outweigh the risks
Wisdom Teeth

Classification - Gregory and Pell

Third Molars

Classification - By Position

Classification - Procedure Code

- **Surgical** - fully erupted, *may* need flap elevation, bone removal and/or sectioning
- **Soft Tissue Impaction** - covered only by gingiva, *will* need flap elevation, *may* need bone removal and/or sectioning
- **Partial Bony Impaction** - bone covering crown up to 50% (radiographically), *will* need flap elevation, *will* require bone removal and/or sectioning
- **Full Bony Impaction** - bone covering crown greater than 50% (radiographically), *will* need flap elevation, *will* require bone removal and/or sectioning
Radiographs- 3rd Molars

- Should show present clinical condition
- Must show roots completely
- Must show relationship of roots to sinus (upper)
- Must show relationship of roots to IAN
- Panoramic- ideal

Cone Beam CT Imaging
Factors That Make Impaction Surgery...

Less Difficult:
- Mesioangular impaction
- Soft tissue impaction
- Adequate A-P room
- Superficial depth
- Fused conical roots
- Separated from 2nd molar
- Separated from IAN
- Roots 1/3 to 2/3 formed
- Wide PDL
- Large follicle
- Elastic bone

More Difficult:
- Distoangular impaction
- Full bony impaction
- Tight A-P space
- Deep
- Curved, divergent roots
- Contact with 2nd molar
- Close to IAN
- Long, thin roots
- Fully-formed roots
- Narrow PDL
- Thin follicle
- Dense, inelastic bone
Risks of Third Molar Removal

• The Usual
  - Bleeding
  - Swelling
  - Pain
  - Infection
  - Dry socket
  - Delayed healing

• Nerve Injury - "numbness"
• Mandible Fracture
• Oral-Antral Fistula

Mandibular Nerve

• Radiographic Relationship of Mandibular Canal to Tooth Roots
  - Risk of paresthesia/ nerve injury
    • Superimposition (no contact)
    • Grooving of root by IAN
    • Perforation of root by IAN
Mandibular Nerve

• Very variable location
• May be above or below the mylohyoid muscle
• Avoid lingual retraction and instrumentation
Mandible Fracture

- Most frequent when:
  - Patient is a male, > 35 years old
  - Deep impaction
  - Infection present before surgery
  - Impaired healing potential
- Usually occurs 1-3 weeks after surgery
- Refer immediately
- Treatment: Closed vs. Open Reduction

Mandible Fracture

- Healthy 36 y.o. woman
- #17 extracted by DDS – difficult
- Developed increasing pain and swelling of left mandible starting 1 week after procedure
- Saw local GP.

Treatment
43 Year Old Male

- Tooth painful, infected
- Non-Insulin Dependent Diabetes
- WPW Syndrome - postablation

Post-Treatment (7 weeks)

Post-Op

1 week postop
2 weeks postop
6 weeks postop
**Oral-Antral Communication**

- Most common with maxillary first molars.
- Best treatment is avoidance.
- Be careful of divergent roots - section.

**Oral-Antral Communication**

- If small:
  - Careful curettage
  - Gelfoam/ CollaPlug
  - Bone graft??
  - “Sinus Instructions”
  - Will probably close by itself
  - If not closed by 2 weeks → Refer

**Sinus Problems**

- The maxillary posterior teeth may project into the maxillary sinus

**Sinusitis:**
- Amoxicillin 500mg TID x 14 days
- Decongestant

**Oral-Antral Fistula**
- Will probably close by itself
- If not closed by 2 weeks → Refer
4 Weeks Post-Op

Oral-Antral Fistula Closure
Risks of Not Removing 3rds

- Pericoronitis
- Severe infection
- Damage to bone and/or adjacent teeth
- Cysts/ Tumors
- Jaw fracture
- It may need to be removed later

Pericoronitis

...or Worse!

Damage to bone and adjacent teeth
Mandible Fracture

It may need to be removed later!
Third Molar Impactions

- Visualize procedure from start to finish
- Have instruments available
- Adequate flap to visualize target and minimize soft tissue trauma

Lower 3\textsuperscript{rd} Molar Incisions

- Sweep away bone
- The tooth crown is harder than bone
- Light pressure
- Let the bur “drive” itself
- Fully expose furcation to facilitate sectioning
Third Molar Extractions

• Vertical impactions
  – Expose crown
  – Try elevating
  – Bisect crown
  – Deliver
    • Distal half
    • Mesial half

Third Molar Extractions

• Mesioangular impactions
  – Expose crown
  – Bisect crown/ roots
  – Deliver
    • Distal half
    • Mesial half

Third Molar Extractions

• Horizontal Impactions
  – Expose crown
  – Section/ remove crown
  – Section/ deliver roots
Third Molar Extractions

• Distoangular Impactions
  – Most difficult impaction
  – Section/ remove crown
  – Deliver roots
  – Crane pick
  – Cryer
  – Pray a little

Upper 3rd Molar Incisions

Upper Third Molar

Typical Case: 4-3rd Molars

• Peridex BID, starting 2 days before surgery
• General Anesthesia
• Lodine 400mg
• No routine antibiotic
Pre Op Patient Instructions

1. Your appointment for ______________________ is scheduled on ______________________. This time is reserved specifically for you. Please try to arrive about 15 minutes prior to your scheduled appointment. If you are late, we may need to reschedule your surgery so that our other patients can be treated at their scheduled times.

2. Please bring the name __________________________________________________________ at __________o'clock, in our ______________________ office.

3. Have a responsible person accompany you to drive you home. Minors must be accompanied by a parent.

4. Do not drink any alcoholic beverages for 24 hours before your surgery.

5. Please discontinue the use of tobacco for as long as possible prior to your appointment. Smoking may delay healing, will create increased discomfort following surgery, and increase the risk of infection.

6. Please take your medicines as scheduled (swallow with a minimal amount of water) unless told otherwise by the surgeon or their medical doctor.**

7. Contact lenses, nail polish, false eyelashes, scented lotions, perfumes, and make-up should not be worn to your appointment.

8. It is a good idea to have a few ice compresses made for when you arrive home. Please leave your jewelry and valuables at home or with your escort.

9. You should have soft, bland food ready at home for the first day.

10. Someone should be available to be with you for 12 to 24 hours after you arrive home.

11. If there is any change in your health in the few days before surgery, such as fever, chest cold, flu or persistant cough, please notify this office immediately.

The estimated fee for surgery: $_________________.

Due at Surgery: $_________________.

Adequate blood levels

Routine Antibiotics

- Antibiotics should not be prescribed without a clinical indication.
- Infection spread to soft tissues at surgery
- Prolonged procedure, excessive bone removal
- Adequate blood levels

- 3 – 4% overall infection rate after third molar extraction.
- Antibiotics do not significantly reduce the risk of postoperative infection in an otherwise “clean” case.

Let’s Walk Through a Case

Removal of impacted 3rd Molars

Full Bony Impactions
Early Root Development Stage

Jay B. Reznick, D.M.D., M.D., Inc.
18372 Clark Street, Suite 224
Tarzana, California 91356
818-996-1200 / FAX 818-996-1325

Thnk You.

SOUTHERN CALIFORNIA CENTER FOR ORAL AND FACIAL SURGERY

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“Routine Antibiotics”

- Antibiotics are over-prescribed for routine oral surgery.
- Risks of over-use:
  - Allergic reactions
  - Resistance

Management of Bleeding

Bleeding from surgical sites can usually be controlled by local measures

Local Measures to Control Bleeding

- Gauze pressure
- Pack site- gelatin sponge (Gelfoam), absorbable oxycellulose (Surgicel)
- Suturing
- Topical thrombin
- Local anesthetic
- Bone wax
- Cyanoacrylate tissue glue (Dermabond, HistAcryl, PenAcryl, IsoDent)
- Rinse with amino-caproic acid or tranexamic acid (5%)

- Rinse with amino-caproic acid or tranexamic acid (5%)
- Hold in mouth for 2.5 min pre-op, then q2h for 6-10 doses
Factors Affecting PostOp Recovery

- Amount of flap reflection
- Surgical time
- Instrumentation
- Irrigation
- Corticosteroids
- Pre-operative symptoms
- Surgeon experience
- Patient age
- Bone density
- Root development
- Tooth position
- Individual variation
Management of Common Postoperative Complications

- Infection
- Sinusitis
- "Dry socket"
- Sequestration
- Lingual mandibular sequestration
- Fracture
- Numbness

Postoperative Infection

- Occurs after 3rd postop day
- Increased swelling, pain
- Foul or sour taste
- Fever
Postop Infection

• Treat initially with “standard” antibiotics
• May require debridement of extraction socket
• Place drain if involves soft tissues

Dry Socket

• Localized Alveolar Osteitis
• Loss of the blood clot
• Etiology??
• “Schmootzy” socket
• “Reznick’s sign” (chandelier sign)
• Treatment

Dry Socket

• Localized Alveolar Osteitis
• Loss of the blood clot
• Etiology??
• “Schmootzy” socket
• “Reznick’s sign” (chandelier sign)
• Treatment
• Prevention

Dry Socket

A true dry socket should not last more than a few days. If it does, look for another cause of the patient’s symptoms.

“When things don’t seem right, there’s a good chance that something’s wrong”
**Oral-Antral Communication**

- Most common with maxillary first molars.
- Best treatment is avoidance.
- Be careful of divergent roots - section.

**Oral-Antral Communication**

- If small:
  - Careful curettage
  - Gelfoam/ CollaPlug
  - Bone graft??
  - "Sinus Instructions"
  - Will probably close by itself
  - If not closed by 2 weeks → Refer

**Sinus Problems**

- The maxillary posterior teeth may project into the maxillary sinus
- Sinusitis:
  - Amoxicillin 500mg TID x 14 days
  - Decongestant
- Oral-Antral Fistula
  - Will probably close by itself
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**Oral-Antral Fistula Closure**
Bony Sequestration

- Small pieces of bone may become obvious at the extraction up to many months after surgery
- Most will slough without treatment
- Can be removed with a hemostat or small rongeur

Post-Surgical Complications

- Lingual bony spicule
  - Can develop anytime after surgery for mandibular 3rd molars, even years later.
  - Painful, radiates to ear, throat, headache
  - Can occur spontaneously.
  - Bony spicule is visible along mylohyoid ridge, penetrating lingual mucosa.
**Lingual Bony Spicule**

- May be self-limited
  - Exposed bone becomes necrotic
  - May slough, leaving a smooth surface underneath
  - Mucosa will heal spontaneously
- May need intervention

**Lingual Bony Spicule**

- Make sulcular incision above spicule
- Elevate flap with curved Molt curette
- Smooth/remove spicule with angled bone file

**Post-Op Paresthesia**

- Incidence
  - 0.5%: Transient
  - 1/20,000 – 1/25,000: Permanent
- Prognosis
  - Paresthesia vs. Anesthesia
- Medications
  - Corticosteroids
  - Neurontin
- Surgery?
  - Observed transection
  - Total anesthesia
  - Dysesthesia

**Surgical Nerve Injury**

- Incidence
  - 0.5%: Transient
  - 1/20,000 – 1/25,000: Permanent
- Prognosis
  - Paresthesia vs. Anesthesia
- Medications
  - Corticosteroids
  - Neurontin
- Surgery?
  - Observed transection
  - Total anesthesia
  - Dysesthesia
Pre-Implant Site Preparation

• Ridge Preservation
• Sinus Lift
  – Direct
  – Indirect
• Bone Augmentation

Ridge Preservation Grafting

• Optimizes the amount of bone present at extraction site
• Reduces early (1st 6 months) ridge resorption by about 75%
• After extraction socket is debrided and irrigated, graft material is packed into socket
• Barrier membrane is placed over graft
• Sutured in place
Ridge Preservation Grafting

My Ridge Preservation Technique

- MinerOss
- Cytoplast membrane
- Cytoplast suture

Ridge Preservation Technique
My Ridge Preservation Technique - Plan B

• When patient cannot come back in 2 - 4 weeks
  ● MinerOss
  ● Mem-Lok membrane
  ● PGA suture

Ridge Preservation Graft - #19

Odontogenic Infections

• Perio/Endo Infections

• Pericoronitis
Dental Infections

• A tooth should not be removed in the face of active infection.
• You must put the patient on antibiotics first, then take out the tooth when the infection is better.

Odontogenic Infections

• Perio/Endo Infections
  1) Remove the source of the infection
  2) I & D
  3) Antibiotics

• Pericoronitis
  1) Usually cellulitis
  2) Begin treatment for soft tissue infection before removing tooth

Antibiotic Use

• Indicated for:
  – Acute onset infection
  – Diffuse swelling
  – Compromised host defenses
  – Involvement of fascial spaces
  – Severe pericoronitis
  – Osteomyelitis

• Not Indicated for:
  – Chronic well-localized abscess
  – Minor vestibular abscess
  – Dry socket
  – Mild pericoronitis

Antibiotic Use

Most odontogenic infections respond readily to the “standard” antibiotics

- Penicillin
- Amoxicillin
- Erythromycin
- Clindamycin
- Cephalexin
- Ceclor
- Metronidazole
- Tetracycline
Indications for C & S:
- Rapidly spreading infection
- Postoperative infection
- Nonresponsive infection
- Recurrent infection
- Compromised host defenses
- Osteomyelitis
- Suspected actinomycosis

Incision & Drainage (I&D)
• Fluctuant vs. Indurated
  - Pus
  - Cellulitis
• Letting out the pus
  - Incision and Drainage

Incision & Drainage (I&D)
• Fluctuant vs. Indurated
  - Pus
  - Cellulitis
• Letting out the pus
  - Incision and Drainage
  - Draining cellulitis

I & D
• Antibiotics
• Warm Saline Rinses
• Moist Heat
• Definitive Treatment
• Follow-up: 1 – 2 days
Reasons for treatment failure

- Inadequate surgery
- Depressed host defenses
- Foreign body
- Antibiotic problems
  - Patient noncompliance
  - Drug not reaching site
  - Drug dosage too low
  - Wrong bacterial diagnosis
  - Wrong antibiotic

Criteria for referral to a specialist

- Rapidly progressing infection
- Difficulty in breathing
- Difficulty in swallowing
- Fascial space involvement

Criteria for referral to a specialist

- Elevated temperature (> 101°F)
- Severe jaw trismus (< 20 mm)
- Toxic appearance
- Compromised host defenses

Pathology in a Nutshell

(as learned in Dermatology)

- If it is Raised:
  - Cut it off
  - Biopsy

- If it is Flat:
  - Try topical steroids
  - If it doesn’t go away
    - Cut it off
    - Biopsy
**Biopsy**

**Incisional vs. Excisional**

- **Incisional**
  - Large lesion
  - Generalized condition
  - Possibly malignant
  - Diagnosis not definitive

- **Excisional**
  - Small lesion
  - Most likely benign
  - Can be completely excised
  - Will not require further treatment

**Incisional vs. Excisional??**

**Biopsy Guidelines**

- Excise down to connective tissue layer
- If ulcerative, biopsy near edge
- If suspect malignancy, biopsy “worst” area
- If excising, excise completely, consider closure

**Laser Biopsy**

- Great technique!
- Don’t cook specimen
- Laser is not a magic wand- it does not replace the scalpel- use appropriately!
  - Raised
  - Benign
  - Excisional biopsy
Incisional or Excisional Biopsy?

Healthy 19 Year old Male

CBCT Panoramic

- Asymptomatic
- No tooth mobility
- Sensation normal
Additional Views

Exploration/ Biopsy

Idiopathic Bone Cavity ("traumatic bone cyst")

1 Year Follow-up

Retreat Endo - #19
Pitfalls - Procedural

• “I’ve got time on my schedule”
• “It looks easy”
• Not having the correct instruments
• Not laying a flap/ big enough flap
• Not planning/ being prepared
• Not referring the patient to the OS to begin with!

~Offer patient options: GP or OS

Help!

• Develop a working relationship with a local Oral and Maxillofacial Surgeon
• You need him/her
• He/She needs you!

Pitfalls - MedicoLegal

• Inadequate informed consent
• Inadequate radiographs
• Poor records
• Failure to call for help/ refer to specialist
• Failure to inform patient of complication
• Ignoring a patient’s complaint of a complication
• Failure to give patient option of seeing a specialist

References - Basic

Mosby
References

The site on the Internet for Online Continuing Education in Oral Surgery for the General Dentist

www.OnlineOralSurgery.com

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