



Dental

Sept 2014

Dentition -- 32 teeth (each quadrant: 2 incisors, 1 canine, 2 premolars, 3 molars) (20 deciduous)
Numbering: 1 → 32 starting in R maxilla and ending in R mandible (anticlockwise)

Tooth Anatomy

Crown (projects into mouth) + root (in gum and jaw)
Pulp - central portion, neurovascular supply (vascular, sensitive)
Dentin - surrounds pulp, majority of tooth
Enamel - white visible portion of tooth
Periodontium - attachment apparatus (gingiva, periodontal ligament, alveolar bone)

Dental anaesthesia

23/25G needle, anaesthetic with adrenaline
Maxillary: 2mm into deepest part of sulcus adjacent to lips, directly above tooth, 2ml
- anaesthetises tooth and adjacent buccal mucosa
Inferior alveolar nerve block:
- anaesthetises mandibular premolar or molar teeth to midline, mandibular nerve to lower lip/chin/tongue
- mouth open wide, enter at opposite side of mouth, needle at apex of buccal fat pad in pterygotemporal depression, insert 20-25mm until contact ramus of mandible, aspirate, inject 2ml, wait 10mins for effect

Dental Caries

Analgesia, dentist

Alveolar Osteitis

aka dry socket
Incr risk: smokers, female, prev episodes, poor oral hygiene
Most commonly 3rd molar
Socket contains necrotic clot due to alveolar margin ischaemia and infection
2-3/7 post extraction (5-10% extractions), severe pain, may radiate to ear, foul odour in mouth, trismus, afebrile
White necrotic bone may be visible in socket
Management: irrigate socket with warm saline or chlorhexidine, regional anaesthesia, remove necrotic debris, zinc oxide and eugenol paste/pack, analgesia, dental review next day
Pain up to 1/52. ?Metronidazole helpful

Dental Infections

Dental Caries - demineralization of protective enamel and subsequent tooth decay
- management: dental referral, oil of clove, analgesia
Pulpitis - inflammation of pulp secondary to caries
Periodontitis - loss of supportive bone structure caused by chronic gingivitis



Pericoronitis

Inflammation +/- infection surrounding impacted or partially erupted tooth

Hx: Usually 3rd molar (Wisdom Tooth), erupting teeth, pain, swelling, halitosis

O/E: Erythema, swelling, +/- abscess

Rx: Same as for Periodontal Abscess

Dental f/u 1-2/7

Periapical Abscess

Collection of purulent material at apex of tooth (bacterial invasion from carious destruction of enamel)

Hx: Progressive pain, thermal sensitivity

O/E: Caries, decayed tooth, pain w/ percussion, palpation of apex, gingival swelling, erythema, mobile tooth

1. Abs: uncomplicated: Pen or Clindamycin; complicated: Pen/Metronidazole, or Clinda/Ceftriaxone)

2. Analgesia

3. I+D if abscess

4. Chlorhexidine 0.1% rinses q2-3h if I + D

5. Surgical referral, if complicated infxn (Ludwig's, Lemierre's Syndrome)

6. Dentist f/u 1-2/7, Complicated – Oral Surg ASAP

Periodontal Abscess

Localized purulent infection within gingival wall of periodontal pocket

Hx: Swelling, pain, loose tooth

O/E: Purulent discharge, erythema, fluctuant mass, dental extrusion

1. Analgesia/dental block

2. I + D abscess prn

3. Antibiotics: Penicillin or Clindamycin

4. Chlorhexidine 0.1% rinses q2-3h

5. Dentist f/u 1-2/7

Dental Trauma

General Approach to Dental Trauma

Airway → assess risk of aspiration → if loose/displaced tooth - do not manipulate

Haemorrhage control - gauze and direct pressure

Avulsed tooth

Dental emergency - call dentist

If primary dentition do not replace: f/u dentist 1-2/52

"time is tooth": if tooth reimplanted within 30mins has 90% chance survival

Handle by crown only. Avoid damage of periodontal ligament.

Gently rise tooth w/ saline, do not wipe root and ligament

Replace and ask patient to bite on gauze (if not at aspiration risk) (or in cheek or under tongue). Splint

If unable place in transport medium: Saline, Milk

Antibiotics



Fractures

ID all fracture fragments: May have been aspirated, lodged in mucosal tissue, intruded into alveolar bone
Consider XR, Consider ADT

Ellis Class I - Through enamel of crown

Pulp necrosis risk = 0-3%

Tx: smooth sharp edges with emery board if causing pain

F/U with dentist PRN

Ellis Class II - Through enamel and dentin (yellow/pink appearance)

Pulp necrosis risk = 1-7%

Painful and temperature sensitive

Tx: Cover tooth with CaOH (eg. Dycal®) after drying tooth with gauze; Soft food diet

F/U with Dentist 24-48 hrs.

Ellis Class III - Through enamel, dentin and pulp (pink appearance, blood often visible)

Pulp necrosis risk = 10-30%

Severe pain, temperature sensitive

Tx: Dental emergency - contact on call Dentist (same Tx as Ellis II except liquid diet)

Alveolar Fracture – # underlying alveolar bone with tooth involvement

Associated with high impact trauma

ED goal: Diagnose and preserve tissue, repair mucosal tissue

Tx: Dental emergency - contact on call dentist/oral surgeon

TMJ Dislocation

Causes: congenital weakness ligaments, iatrogenic (extractions, dental extractions, direct laryngoscopy), trauma, seizures, yawning

Reduction: patient seated, posterior head support, midaz + morph, hold mandible with both hands/gloved thumbs intraorally/lateral to lower molars, condyle manipulated down and backs below articular eminence.

One side at a time. Re-Xray. Follow-up with maxfax.

Intra-oral lacerations

Lacs > 1cm should be sutured