S218: Dentoalveolar Surgery for the OMFS: Contemporary Techniques
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Risk management for impacted third molars

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- Keep all instruments clean.
- Protect the lingual plate and avoid canal deviation.
- Sutures should be placed through the distal impacted molar.
- Avoid placing bone substitute as within the impacted extraction socket.
- Avoid aggressive socket curettage and don't abuse stripping of impacted flap.

Risk management for impacted third molars

- Avoid retreating teeth proximal to the impacted tooth.
- Establish the location of the extraction:
  - Panoramic x-ray
  - CT imaging.
Risk management for impacted third molars

Panoramic radiographic assessment:
1. deviation of canal*
2. narrowing of canal
3. periapical lucency
4. narrowing of root
5. darkening of root*
6. curved apex/root
7. loss of canal outline*

Hanato, JOMS 2009

“CT imaging in the management of impacted 3rd molars”

23 patients considered "high risk" by panoramic xray had CT imaging prior to extraction

- Pan a/w low sensitivity and high specificity
- 80% of pts "high risk" by pan
- Only 32% considered "high risk" by CT
- 62% false positive frequency by pan
- 9% of "high risk" pts developed temporary dysesthesia

Susarla & Dodson, JOMS 2007

Risk management for impacted third molars

Consider alternatives to extraction for "high risk" impacted third molars

- Given R/B ratio...is extraction indicated?
- Orthodontic extrusion (Bonetti, JOMS 2007)
- Partial odontectomy*
Intentional partial odontectomy

- Resection of crown below the C-E junction
- Residual root surface established at 3-4 mm below the buccal and lingual alveolar crest
- Primary closure

Pogrel (JOMS, 2004-09): 450 high risk exo’s (pan). No cases of IAN injury

Dolanmaz (JOMS, 2009): 43 high risk exo’s (pan). No cases of IAN injury
“Intentional partial odontectomy: a case-control study utilizing CT scans”

Patients categorized as “high risk” based on CT findings of:
- Point contact with IAN without intervening bone
- Broad, multi-surface contact with IAN

Hatano, JOMS 2009

220 enrolled (high risk)

118 control group (extraction)
102 case group (coronectomy)

Hatano, JOMS 2009

“Intentional partial odontectomy: a case-control study utilizing CT scans”

Extraction Group
- IAN injury in 6 patients (5%) with 3 permanent
- Local osteitis in 10 patients (8%)

Coronectomy Group
- IAN injury occurred in 1 patient (1%) but resolved by 3 weeks
- Local post-op infection a/w retained root in 4 patients (4%). Resolved with root removal
- Root migration in 85 patients (87%)

Hatano, JOMS 2009
Risks/Benefits of partial odontectomy

- Minimal IAN risk
- Root migration (5-30%) (3-4 mm)
- Post-op infection
- Need for 2nd surgery