



Peninsula Dental Social Enterprise

Extraction – Management of a Fractured Maxillary tuberosity

Version 2.0

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Approved by: The Board

Review due: August 2019

Policy will be updated as required in response to a change in national policy or evidence-based guideline.

Guidelines for the Management of a Fractured Maxillary Tuberosity

The maxillary tuberosity is important for the construction of a stable and retentive maxillary denture. It can be fractured during extraction of maxillary molars which not only compromises the stability and retention of a maxillary denture (existing or one in the future) but also markedly increases the risk of an oro-antral communication.

Prevention

Thorough preoperative radiographic evaluation is essential. The risk of a tuberosity fracture is increased in the following situations:

- Increased divergence or dilaceration of the roots of the tooth
- Ankylosis of root(s)
- Inadequate support of the maxillary alveolus using the non-dominant hand during the extraction
- Use of uncontrolled force during extraction; in particular, excessive distal force when using elevators.

Please ensure to:

- Avoid excessive force during extraction
- Use the non-dominant hand appropriately to support the maxillary alveolus during extraction; if excessive movement of the bone in the tuberosity region is appreciated during tooth movement, terminate the extraction, re-evaluate and either
 - a. Perform a surgical extraction with sectioning of the roots; Or
 - b. Consider referral to Oral Surgery clinic (Plymouth) or OMFS at the local hospital.

Management

If the maxillary tuberosity inadvertently fractures during an extraction, stop and evaluate:

If the fractured tuberosity is still attached to the periosteum:

1. Abandon the extraction and place an appropriate suture
2. If the tooth being extracted is mobile, either splint it to the adjacent tooth using a composite splint or section the crown of the tooth being extracted to allow the tuberosity and roots to heal.
3. Place an appropriate suture
4. Advise soft diet for up to 2 weeks along with other post-operative instructions
5. Antibiotics (if the tooth being extracted has an acute infection).
6. Refer for a surgical extraction (to be scheduled in approximately 8 weeks).
7. Review in 3 days to ensure the patients are not experiencing any symptoms requiring further intervention.

Inform the patient in a reassuring manner and document the incident appropriately.

If the fractured tuberosity is completely separated from the soft tissues:

1. Smooth the sharp edges of the residual bone
2. Reposition the soft tissues and place appropriate sutures.
3. Carefully check for any potential OAC and manage appropriately (See PDSE guidelines on the management of OAC).
4. Provide meticulous postoperative instructions including soft diet, adequate pain relief and antibiotics if appropriate
5. Refer to Oral Surgery for follow-up.

➤ Plymouth

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6. Inform the patient in a reassuring manner and document the incident appropriately.