Extraction - Management of an Oro-antral Communication (OAC)

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Guidelines for the Management of an Oro-antral Communication

Removal of maxillary posterior teeth may be complicated by an accidental communication between the sinus and the oral cavity. An OAC may lead to nasal leakage of oral fluids, and may be further complicated by sinusitis and an oro-antral fistula.

Prevention

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

- Close relationship of the roots of the tooth to the sinus floor
- Increased divergence or dilaceration of the roots of the tooth
- Marked pneumatization of the sinus leading to an increased size
- Teeth / root(s) with peri radicular lesions in close association with the sinus floor

In such cases:

- Avoid excessive apical pressure during extraction
- Perform a surgical extraction with sectioning of the roots; consider referral to Oral Surgery clinic (Plymouth) or OMFS at the local hospital.

Diagnosis

Following extraction of the tooth, an OAC may be assumed if bone is attached to the roots of the extracted tooth.

Diagnosis may be confirmed by a positive nose blowing test (patient blows the nose gently by pinching their nostrils to occlude the nostrils; passage of air through the sinus floor leads to bubbling of blood in the extraction socket).

Avoid forceful blowing of the nose and never probe the socket floor as these measures may create an OAC when none is present prior.

Management

If an OAC is suspected or identified (<7mm):

1. Place a piece of surgicel in the base of the socket.
2. Place a horizontal mattress suture (preferably a figure of eight) yourself or with the help from your clinical supervisor, as appropriate.
3. Ensure haemostasis by placing a bite pack for 10-15 minutes.
Provide meticulous postoperative advice with sinus precautions:

- No spitting or rinsing for at least 24 hours.
- Avoid use of straws, whistling or blowing the nose for the next 72 hours
- Avoid smoking for 72 hours
- Avoid forceful sneezing.
- Maintain adequate oral hygiene using a soft tooth brush (do not spit or rinse actively).
- Analgesics
- Antibiotics (Amoxicillin, Cephalexin or Clindamycin usually for 5 days)
- Nasal decongestant (0.5% Ephedrine nasal drops) for 5 days only

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

If a large (>7mm) OAC is identified

Follow the steps outlined above, plus make an immediate referral to OMFS at the local hospital by speaking to the on-call doctor by telephone first. A written referral letter should accompany the patient ensuring appropriate means of transport to the hospital following acceptance of the referral by OMFS.

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

Follow-up

If you have managed the patient locally (suspected or small OAC (<7mm) without referral to OMFS:

Review the patient after 48-72 hours.

- If healing is progressing satisfactorily, reassure and review again in 3-4 days.
- If the patient reports nasal regurgitation of fluids or if an established OAC is identified on examination, explain the findings to the patient in a reassuring manner, document the incident and make an immediate referral to Oral Surgery Clinic (Plymouth only) or OMFS at the local hospital.

Delayed Diagnosis and Management

If the patient develops an OAC which is not detected at the time of extraction, they may present later with complaints of nasal regurgitation of fluids and possible signs of sinusitis, and/or change in voice quality. In such cases, it may be best to confirm the diagnosis with thorough clinical and radiographic examination (usually a PA is sufficient). If a diagnosis of OAC is confirmed, document the incident, inform the patient in a reassuring manner and make an immediate referral to Oral Surgery Clinic (Plymouth) or OMFS at the local hospital.