

Which treatments are best for oro-antral fistulae?

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A Commentary on

Kiran Kumar Krishanappa S, Eachempati P, Kumbargere Nagraj S, Shetty N Y, Moe S, Aggarwal H, Mathew R J.

Interventions for treating oro-antral communications and fistulae due to dental procedures. *Cochrane Database Syst Rev* 2018;

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Abstract

Data sources Medline, Embase, the Cochrane Central Register of Controlled Trials (CENTRAL), the Cochrane Oral Health's Trials Register, the US National Institutes of Health Trials Registry (ClinicalTrials.gov) and the World Health Organisation International Clinical Trials Registry Platform. There were no restrictions on language or date of publication selected.

Study selection Randomised controlled trials (RCTs) of interventions for the management of oro-antral fistulae or communications as a result of dental procedures only were considered. Crossover trials and quasi-randomised studies were excluded.

Data extraction and synthesis Two reviewers independently elected studies, extracted data and assessed risk of bias. The main outcome of closure of the oro-antral fistulae or communications was dichotomous and expressed as a risk ratio (RR) 95% confidence intervals (CI). The GRADE approach was used to assess the overall quality of the evidence.

Results Only one study with unclear risk of bias was included. This involved 20 patients and compared two surgical interventions: pedicled buccal fat pad flap and buccal flap. There was successful closure of all oro-antral communications in both groups, so no difference was reported between the interventions one month after surgery (RR 1.00, 95% CI 0.83 to 1.20). The quality of the evidence was very low (GRADE).

Conclusions As all the interventions in the one small study were effective there is insufficient evidence to assess any difference. Further research including large well-conducted and reported RCTs on treating oro-antral communications and fistulae caused by dental procedures is needed to inform clinical practice.

Commentary

In the present study the definition of oro-antral communication/fistula (OAC/OAF) is mistaken because it defines the process as only a pathological condition. In fact, the term 'non-pathological' should be included in the text, because during the description of the condition other events are reported which

are non-pathological; for example, the condition presented by the authors as most commonly encountered during maxillary posterior tooth extraction due to the anatomical proximity between root apices and the maxillary antrum. Thus, the communication is caused by trauma and not a disease process. Therefore, the definition should be that OAC may be related to a pathological or non-pathological condition.

In general, the introduction of this study presents itself poorly, with much information not precisely included in the text, lacking relevant issues mainly in the description of the intervention. It would have been helpful to divide the procedures for treating OAC and OAF as 'surgical' and 'non-surgical' to treat the OAC and the OAF. These procedures can be isolated or combined for case resolution. The authors encourage the use of soft tissue flaps, bone grafts and membranes. These could be associated or not, with antibiotic therapy and the use of nasal decongestants.

The authors used an adequate search strategy, but they could have included other databases. Although it would benefit from a better description of the events correlated in the introduction, the format presented by the authors highlights the main aspects of the OAC.

The review shows that the main determinant of the optimal treatment is the size of the fistula or communication. In cases where the communication is less than 2mm, lack of infection and maintenance of a blood clot will lead to resolution. However, in cases where the OAF is already present, the treatment must be planned according to the size of the defect, to resolve the case.

The use of PBFPE, BF and palatal rotational flaps, palatal transposition flaps are inexpensive and straightforward procedures as they utilise autologous soft tissue, and are excellent options for most cases. According to the only RCT study included in this systematic review, the first two presented effective ways for the treatment of OAC.

Thus, the presence of only one study included in this systematic review reinforces the necessity for studies in this area, mainly RCTs, that may present different treatment approaches to defining the best procedure for each OAC or OAF condition.

GRADE rating



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