**Case Report:**

**A CASE REPORT OF ORO–ANTAL FISTULA TREATED WITH A COMBINATION TECHNIQUE OF BUCCAL ADVANCEMENT FLAP AND BUCCAL FAT PAD**

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**Abstract:**
The oroantral fistula (OAF) is a pathological communication between the oral cavity and the maxillary sinus; depending on the location it can be classified as alveolo-sinusal, palatal-sinusal and vestibulo-sinusal. Oro-antral communications may develop as a complication of dental extractions, but may also result from accidental or iatrogenic trauma, neoplasm or infection. An oroantral fistula which is smaller than 2 mm frequently closes spontaneously. A 28 years old healthy male reported to the outpatient department of hospital for evaluation of pus discharging fistula distal to left upper first molar. A surgery was planned for the removal of displaced root segments and closure of the fistula. A Caldwell luc approach was used to remove the roots and the closure of oro antral fistula was done by using double layer technique with buccal fat pad and a buccal advancement flap. The sutures were then placed. The treatment of oroantral fistula through the use of buccal advancement flap and buccal fat pad is a simple and complete method which enables several uses in most of cases.

Keywords: Oroantral fistula

**Introduction:**

The oroantral fistula (OAF) is a pathological communication between the oral cavity and the maxillary sinus; depending on the location it can be classified as alveolo-sinusal, palatal-sinusal and vestibulo-sinusal. Oro-antral communications may develop as a complication of dental extractions, but may also result from accidental or iatrogenic trauma, neoplasm or infection. An oroantral fistula which is smaller than 2 mm frequently closes spontaneously. However, when the defect is bigger or when there is inflammation, maxillary sinus or periodontal region infection, such fistula demands surgical treatment for its complete closing. This article reports a case of a oro-antral fistula successfully treated with a double layer technique using buccal fat pad and buccal advancement flap and removal of displaced roots of molar from the antrum.

**Case Report:**

A 28 years old healthy male reported to the outpatient department of hospital for evaluation of pus discharging fistula distal to left upper first molar. The patient gave history of traumatic extraction of upper left second molar 2 months back. He had discomfort in the region of the extraction socket. Soon after, expression of a yellowish foul smelling discharge followed from the socket, the patient reported for the dental check up. The patient reported that the crown was fractured while extraction. The patient also reported of foul smelling discharge from nose while drinking water. The intra oral examination revealed that the left upper second molar was absent. Purulent material from the fistula was observed distal to left maxillary first molar. A provisional diagnosis of oro-antral fistula was given based on the history and examination.
The patient was advised for an orthopantomograph OPG and cone beam computed tomography CBCT. The radiographs revealed oro antral communication with displacement of two roots into maxillary sinus.

A surgery was planned for the removal of displaced root segments and closure of the fistula. A Caldwell luc approach was used to remove the roots and the closure of oro antral fistula was done by using double layer technique with buccal fat pad and a buccal advancement flap. The sutures were then placed.

Routine postoperative instructions with prescription of antibiotics and analgesics were given to the patient. The patient was warned against blowing the nose for 2 weeks. The post operative CBCT showed maxillary antrum clear of the root stumps.
DISCUSSION
The primary closing of oro-antral fistulas in 48 hours presents a 90 to 95% success rate, and such rate falls to 67% when the closing is secondary.\textsuperscript{5,6} Numerous surgical methods have been described for treatment of oro antral fistulas, although only a few have been accepted in daily practice. The buccal fat pad is an encapsulated, rounded, biconvex specialized fatty tissue which is distinct from subcutaneous fatty tissues. It is located between the buccinator muscle medially, the anterior margin of the masseter muscle and the mandibular ramus and zygomatic arch laterally.\textsuperscript{7,8,9,10} The advantages of pedicled buccal fat pad

FIG 3–POSTOPERATIVE

The patient was followed-up for duration of 2 months periodically at the regular intervals to evaluate for any postoperative complication. Complete epithelisation was observed after 6 weeks. No post operative complications were evident.

FIG 4-POSTOPERATIVE HEALING
(BFP) include ease of harvesting, simplicity, versatility, low rate of complications, and quick surgical technique. The blood supply of the buccal fat pad is not affected due to its displacement, once it is gripped and replaced between the flap and the maxillary wall. It is worth noting that the use of BFP with buccal advancement flap (combination technique) in the literature is scarce.¹¹,¹² It provides more stability, can be used to cover BFP and as additional tissue for closure where there is a deficient BFP for closure.

**CONCLUSION**

The treatment of oronatal fistula through the use of buccal advancement flap and buccal fat pad is a simple and complete method which enables several uses in most of cases.

**REFERENCES**
