

OROANTRAL COMMUNICATION – SURGICAL TREATMENT WITH BUCCAL MUCOSAL ADVANCEMENT FLAP-A CASE REPORT

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ABSTRACT:

An OAC is an abnormal pathological communication that develops between the oral cavity and the maxillary antrum^[1]. Most frequently it develops as a complication following extraction of the maxillary posterior teeth. other etiologies that results in the formation of an oro antral communication are cyst enucleation, benign tumour, resection of malignancies, orthognathic surgery, osteomyelitis and trauma. Maxillary antrum perforations of less than 5mm closes spontaneously after the formation of blood clot however if the perforation is 6mm or more surgical intervention is required to close the communication.

1. INTRODUCTION:

The maxillary sinus is the largest paranasal sinus that occupies a major part of the maxillary body and lies in close proximation with the apices of the maxillary posterior teeth.

The development of OAC is more common between 30 and 60 years of age.

Sex: male>females^[2]

Incidence:

1st molar extraction – 1:180^[3]

2nd molar extraction – 1:280^[3]

On clinical examination the patient may present with one or more of the following signs and symptoms which includes pain , salty taste, altered vocal resonance, inability to blow cheeks and escape of fluids through nose on eating or drinking^[4].

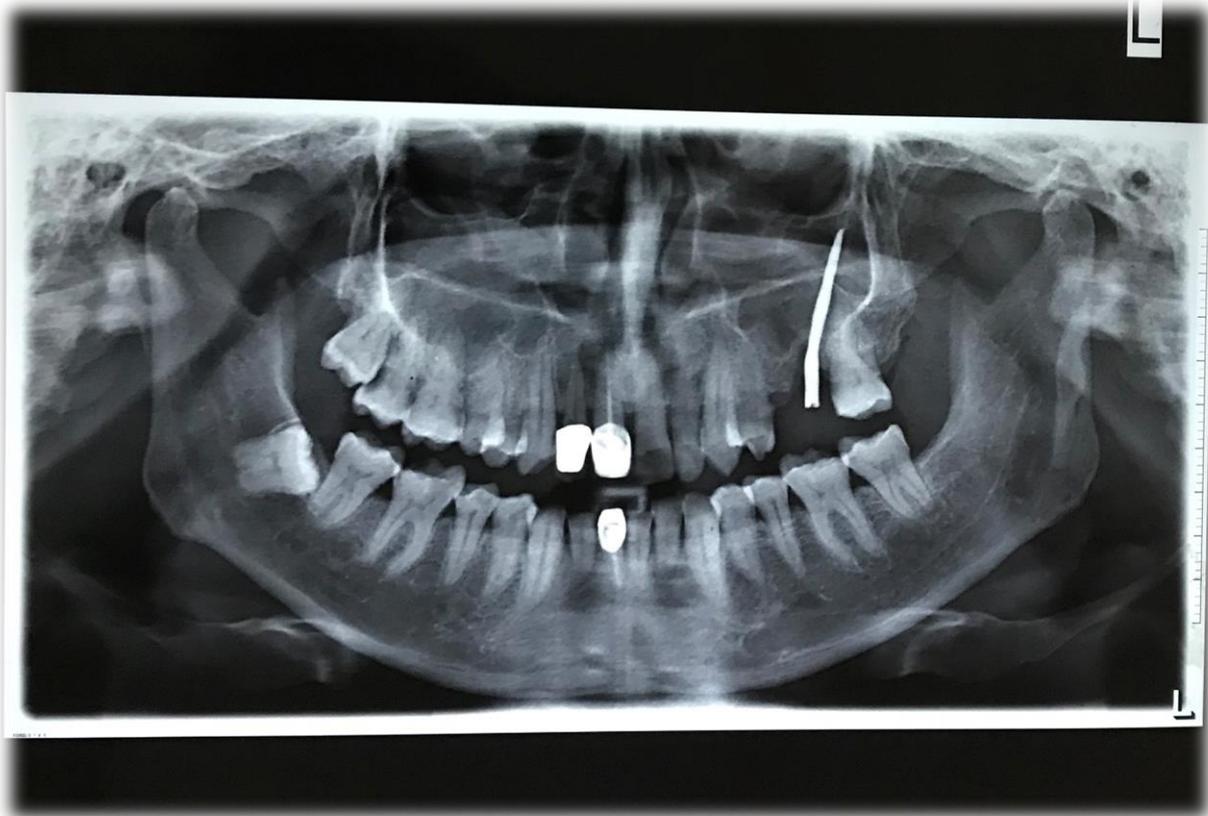
Various treatment modalities are available for the closure of OAC which includes autograft, allograft, alloplastic materials and closure with membranes or titanium mesh.^[5,6,7,8]

In this case report we chose to surgically close the communication with a buccal advancement flap. The buccal advancement flap designed by Rehrmann in 1936^[9] has various advantages over other modalities. It provides adequate access, has a good blood supply and also provides ease of tissue release for primary closure^[10].

2. CASE REPORT:

A 41-year-old patient came to our department with a chief complaint of fluids entering the nose on eating or drinking, nasal congestion and sanguineous discharge for the past 6 months following tooth extraction. The affected site was examined visually and radiologically. On visual examination, it was observed that there was an opening at the extraction site of 26.

An OPG was taken with gutta percha cone gently inserted into the opening present in relation to the extraction site. The radiograph confirmed the presence of communication between the oral cavity and the maxillary antrum.



The patient is a known diabetic and hypertensive and is under medication

Initially an infiltration was given in 26 region with 2% lignocaine with 1:80,000 adrenaline. A trapezoidal buccal flap was designed by marking two buccal divergent vertical incisions extending into the buccal vestibule using a no 15 BP blade. The flap was then elevated, horizontally scored, brought across the defect and sutured to the palatal margins with silk 3-0. Periodontal pack was placed over the operated site.



Post operative medications and instructions were given. The patient was prescribed with antibiotics (amoxicillin/clavulanate 625mg, metronidazole 400mg), analgesic (paracetamol 500mg/ aceclofenac 100mg) and decongestant (karvol plus).

The patient was followed up after 48 hours and then after 1 week post operatively. On the second post operative day the perio pack was removed. The patient presented with no pain or discomfort while eating or drinking. The sutures were removed on the 7th post operative day followed by the placement of acrylic stent covering the surgical area to be left in place for 4 weeks that was advised to be removed only for cleaning, the healing was clear with no signs of inflammation.

3. CONCLUSION:

OAC if left untreated may result in tract formation further leading to chronic sinusitis. Primary closure within 48 hours is reported to be associated with a success rate of 90 – 95 % whereas late closure has been associated with a success rate of 67%^[11,12]. This traditional treatment of using a buccal advancement flap has its own advantages and disadvantages. Certain disadvantages includes pain, swelling and reduction of vestibular depth. However advantageous like low cost, lesser morbidity and shorter period of healing makes it the preferred choice of treatment for closure of oroantral communication.

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