Case Report

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Oral Cutaneous Fistula, Therapeutic Challenge: Case Report

Abstract:
Oral Cutaneous fistula often leads to intensive level of patient discomfort and suffering. Due to its rarity and absence of dental symptoms considerable number of patients are usually misdiagnosed with results of inappropriate management. This case report represents two clinical cases of age 21yr and 26 yr with similar history of non healing persistent discharging lesion on right side of maxilla which was unpleasing from last 2 years, After clinical and radiographic analysis two different therapeutic modalities in two different patients with similar kind of history was used to treat oral cutaneous fistula, both treatment results in satisfactory outcome.

Keyword :

Introduction:

Oral cutaneous fistula is an infrequent condition affecting maxilla and mandible in which there is a pathological communication between oral cavity and skin.[1] Chronic dental infections, dental trauma, dental implant complications, neoplasms are the most common cause of oral cutaneous fistula. Affected patients usually seek help from dermatologists or surgeons rather than from dentists due to its non specific clinical manifestations, the clinical diagnosis of oral cutaneous fistula requires high degree of suspicion, Treatment of oral cutaneous fistula itself is an therapeutic challenge, Prognosis is excellent when treatment initiates promptly, otherwise oral cutaneous fistula become life threatening.

Etiology:

Chronic dental infections are responsible for most cases of oral cutaneous fistula reported in literature. They arises as a sequlae of bacterial invasion of dental pulp resulting in apical periodontitis caused by carious lesion. As a sequlae pulp becomes necrotic and infection spreads into periradicular area. Subsequently infection leads to bone resorption and dissects along the path of least resistance from root apex to finally erupts through skin and becomes a communicative tract.[2, 3]

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Evaluation:

In case of oral cutaneous fistula, a tooth with a necrotic pulp often has a normal appearance or presents with slight alteration in its color, with or without pain.

Radiographic analysis (IOPA, OPG) can be used to show bone loss in the apex of infected tooth, Unless the infection is widespread and severe, imaging studies such as CT scan or MRI is not necessary.

Treatment:

The treatment includes extraction or endodontic treatment of infected tooth. Antibiotic coverage is necessary on both treatment modalities to reduce number of microbes causing infection.

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Case Report:

Two young healthy patients of age 21years and 26 years was referred from general surgeon to our private clinic with a chief complain of persistent purulent discharge which was significally affecting his esthetics and quality of life on right side of maxilla from last 2 years. The patients has been disclosed that he had been seen many doctors and was prescribed several course of antibiotics but lesion reoccurred on stopping medicine.

A breach in enamel and dentin by carious lesion provides a portal for bacterial invasion. Failure to treat infected tooth during early inflammatory stage sets the precedent for further complications.

Clinical and Radiographic examination (IOPA and OPG) reveals bone loss in apical area of premolar and molar with abnormal communication between face and oral cavity.

Therapeutic Intervention of Case 1:

After administration of local anaesthesia, an elliptical incision with bp blade no. 15 was made on the superficial skin layer to protect the facial artery which lies in deeper fascia, then the dissection was made below the skin until the fistula was reached, After the fistula is reached dissection was then continued through the muscle until the intraoral origin of the tract. Extraction of premolar and molar teeths was done followed by surgical excision of tract lining and curettage of granulation tissue along with thorough irrigation with betadiene solution. Wound closure was done by 3(0) intraoral silk suture and 4(0) extraoral nylon sutures, post operative instructions are as followed.

Antibiotic amoxicillin clavulanic acid 625mg was prescribed twice daily for 5 days along with analgesics. Patient was recalled after 7 days for suture removal and follow up..

Fig.1 Preoperative lesion

Fig.2 Extraoral elliptical incision 15 no. blade

Fig.3 After extraction of premolar and molar

Fig.4 Debridement

Fig.5 Intraoral sutures with 3(0) silk

Fig. 6 Extra oral sutures 4(0) nylon

Therapeutic Intervention Of Case 2:

After administration of local anaesthesia, endodontic therapy was done with removal of infected pulp tissue of upper right 1st molar with thorough irrigation of tract with 3% hydrogen peroxide irrigating solution followed by filling the root canal with biocompatible material. Antibiotic amoxicillin clavulanic acid 625mg was prescribed bd for 5 days along with analgesics. Patient was recalled after 7 days for follow up..

Fig.1 Preoperative lesion

Fig.2 Irrigation with 3% hydrogen peroxide

Fig.3 Post operative

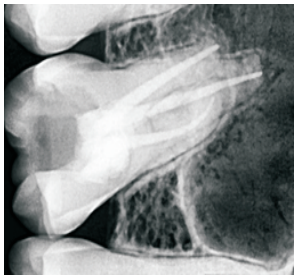

Fig. 4 Post obturation

Iopadiscussion:

The cutaneous fistula of dental origin is an uncommon, but well documented, condition in the literature. Diagnosis is challenging for many reasons. The clinical cases of oral cutaneous fistula described in this study had been previously misdiagnosed and managed inappropriately.[4] This can be due to the fact that these lesions do not always arise in close proximity to the underlying dental infection and had only about half of patients ever recall having had toothache.[5,6] A thorough history taking, intraoral examination, and radiographic examination are critical for making the appropriate diagnosis and may spare the patient much unnecessary treatment.

The classic lesion is an erythematous, smooth, symmetrical nodule, 1-20 mm in diameter with or without drainage. The chronic lesion often leads to retraction of skin secondary to scarring. A cord like tract can be felt attached to the underlying bony structure. All the above mentioned typical findings were present in the two cases described in this report. Patients may experience intermittent remission of the symptoms. In the clinical cases described here, intraoral examination reveals dental caries and radiographs clearly revealed obvious periapical radiolucencies which are associated with diseased teeth. As far as definitive treatment is concerned, root canal therapy or surgical extraction is the treatment of choice.[7,8]

In the above case report both the method of removing orocutaneous fistula has been described. Advantage of surgical extraction and curettage of granulation tissue is, the elliptical shape of the incision has the effect of minimizing post surgical scar formation as compared to the disfiguring scar which may result if the lesion is left to heal on its own by granulation.

Disadvantage is patient lost the affected tooth.

In second case, where root canal treatment was performed to healthe orocutaneous fistula, the lesion is resolved without extracting the tooth.

disfiguring scar is left as the lesion is left to heal on its own by granulation, which is cosmetically unappealing for the patient which can further required surgical revising if any.

Both patients were followed up postoperatively and both showed significant improvement.

Conclusions:

Our case emphasizes that dental etiology should be considered for persistence oral cutaneous fistula. To achieve proper diagnosis of such a communication one should suspect dental etiology, a thorough history, dental diagnosis, and radiographic examination is usually required to confirm diagnosis. Antibiotics alone not only suffice, prompt and effective treatment is necessary to get rid of lesion.

The above both therapeutic interventions are equally effective and give satisfactory outcome if done properly.

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