ISSN: 0976-3031

Available Online at http://www.recentscientific.com

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 9, Issue, 3(H), pp. 25215-25217, March, 2018

International Journal of Recent Scientific Research

DOI: 10.24327/IJRSR

Research Article

VARIOUS ORIGINS OF ORO-FACIAL FISTULAS: A CASE SERIES

Karthikeyan GR., Balaguhan B., Mathan Mohan A., Meera Thinakaran., Deepak Velu and Vinod Krishna

Dept of Oral and Maxillofacial Surgery, Karpaga Vinayaga Instititue of Dental Sciences, Kanchipuram -603308, Tamil Nadu, India

DOI: http://dx.doi.org/10.24327/ijrsr.2018.0903.1816

ARTICLE INFO

Article History:

Received 9th December, 2017
Received in revised form 5th January, 2018
Accepted 23rd February, 2018
Published online 28th March, 2018

Key Words:

orofacial fistula, CT - fistulography

ABSTRACT

An Oro-facial fistula is a pathologic communication between the cutaneous surface of the face and the oral cavity which leads to esthetic problems due to the continual leakage of saliva from the oral cavity to the face. It is a well documented but uncommon condition, which is often initially misdiagnosed and inappropriately treated. Early diagnosis with a proper history and investigations may spare the patients to provide appropriate treatment and esthetic care. This case series reports patients with cutaneous sinus tracts with various origins and the treatment done for the same.

INTRODUCTION

A fistula is an abnormal pathological pathway between two anatomic spaces or a pathway that leads from an internal cavity or organ to the surface of the body whereas a sinus tract is an abnormal channel that originates or ends in one opening. An Oro-facial fistula is a pathologic communication between the cutaneous surface of the face and the oral cavity. In the literature, the terms fistulas and sinuses are often used interchangeably.[1] An Oro-facial fistula can be of odontogenic origin like peri apical infections, Dento-alveolar abscess, Odontogenic cysts and of Non-odontogenic origins like trauma, benign and malignant lesions. Chronic peri-coronal infections or dentoalveolar abscesses are the most common cause for intraoral and extra oral fistulas respectively.[2] Oro - facial fistula often results in continued leakage of purulent material from the oral cavity to the face and the eventual scar tissue formation creates aesthetic problems.[3] Long standing Odontogenic infections have been implicated in the development of Oro-facial fistulae. These conditions are frequently misdiagnosed by general practitioners; thus the right treatment is not offered and an exacerbation of the illness occurs.[4] Therefore this case series elucidates various reasons for the origination of Oro-facial fistula which emphasizes the importance of proper diagnosis and to initiate the correct treatment plan.

Case presentation

Case - 1

A male, aged 56 years, reported to the dental outpatient department with fluid leakage from the sub-mental region along with a retained arch bar and a sub lingual calculus in the lower anterior region. History of presenting illness revealed trauma which had resulted in fracture of the sympysis for which treatment was attained. On clinical examination, redness in the floor of the mouth, slightly restricted tongue movement and poor oral hygiene were seen. On further examination an improperly reduced fracture site which had led to mal-union and wound dehiscence were also noticed. After the arch bar and sub lingual calculus were removed a through and through fistulous tract and drooling of saliva were found in the submental region. The patient was subjected to occlusal radiograph investigation which revealed a round well defined radiolucency suggestive of bone loss at the site. The above radiographic features were correlated with the clinical findings and the diagnosis of Oro-facial fistula was confirmed. Complete curettage followed with surgical repair was done with antibiotic coverage. (Figure 1)

Corresponding author:* **Karthikeyan GR
Dept of Oral and Maxillofacial Surgery, Karpaga Vinayaga Instititue of Dental Sciences, Kanchipuram -603308, Tamil Nadu, India

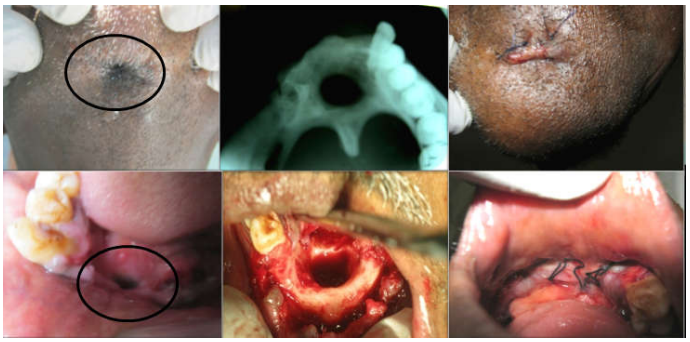

Figure 1 Case 1

Case - 2

A 22-year-old male patient reported with recurrent swelling and discharge from left cheek for past two months. Past dental history revealed swelling and pus discharge in the partially erupted left third molar region for which a stab incision and drainage was attempted intra-orally by a general dentist before two months. On extra- oral examination, an erythematous swelling with blood-stained purulent discharge was found on the left side of the body of the mandible. On Intra oral examination a partially erupted left third molar with mild pericoronitis was found. Computer Tomography (CT) Fistulography[9] revealed opacification of an oblique tract from the follicular space of the third molar intra-orally to the extra-oral exit suggestive of Oro-Facial fistula. Surgical extraction of third molar was done with the excision of fistula under extended antibiotic coverage.(Figure 2)

Figure 2 Case 2

Case 3

A male aged 46 year-old reported to the dental outpatient department with a discharge near the right lower border of the mandible. The history of presenting illness revealed an accidental fall from a tree, resulting in a sharp wooden splinter piercing his face before four months. The patient reported removal of the wooden splinter during which a piece of the splinter fractured and remained embedded in the soft tissues. On Extra-oral examination, a diffuse swelling of 2×1 cm on the right side of the face extending from the angle of the mandible to the corner of the mouth was found with a draining sinus noted adjacent to the site of injury, near the lower border of the mandible. On palpation, the right submandibular lymph nodes were tender and mobile. Intra-oral examination revealed a sinus draining lingual to 46 also. Based on the history and clinical presentation differential diagnosis of a fistula related to a retained foreign body or sinus with persisting infection were considered. Further the tract was traced with probing under local anesthesia which confirmed a communication between the intra oral and the extra oral region suggestion of Oro- facial fistula related to a retained foreign body. Surgical exploration of the fistula was performed under general-anesthesia to eliminate any wooden splinter or a nidus of infection and removal of the fistulous tract was done in Toto. (Figure 3)

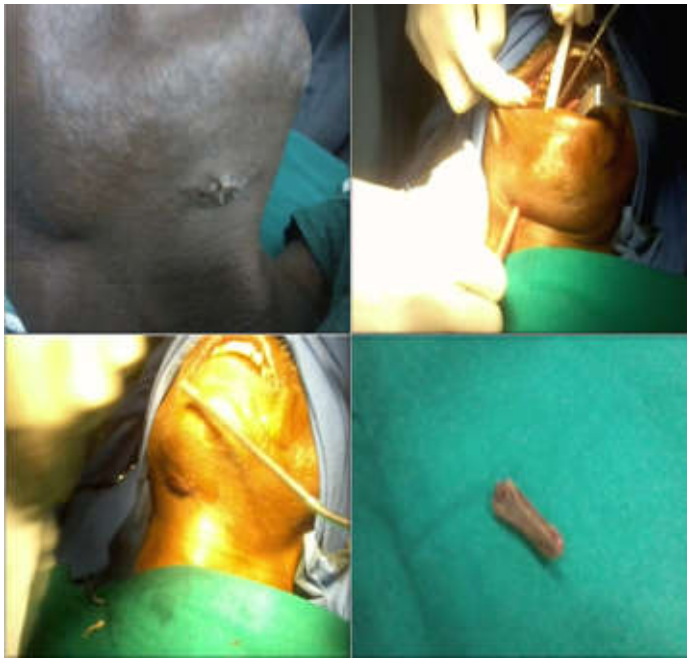

Figure 3 Case 3

DISCUSSION

An Oro-facial fistula of dental origin is uncommon, unsightly, and sometimes distressing and frustrating to the patient[3]. An extra oral opening or cutaneous sinus tract may be confused with wide variety of diseases including local skin infections, in grow hair or occluding sweat gland duct, osteomyelitis, neoplasm, tuberculosis, actinomycosis, congenital midline sinus of upper lip, congenital fistula and infected cyst, pyogenic granuloma, and other pathologies.[5] Treatment varies for different pathologies; therefore, accurate diagnosis and understanding of the lesion are important. The diagnosis is always challenging and these lesions always do not arise in close proximity to the underlying dental infection and only about half of patients ever recall having had a toothache[6]. Oral infection can spread to the skin if it is the path of least resistance. Facial space infections often begin as cellulitis and

progress to fluctuant abscess formation, by which is more likely to result in Oro- Facial fistulas. Hence the presence of a cutaneous sinus on the face must alert the physician, surgeon or the dermatologist to make a dental examination.[7]A clinician's high index of suspicion can lead to early and correct diagnosis. Early diagnosis and prompt treatment minimize patient discomfort and esthetic problems, reducing the possibility of further complications, such as sepsis and osteomyelitis.[8]For all our cases, a thorough history taking and intraoral examination are critical for making the appropriate differential diagnosis and it helps to provide much unnecessary treatment and clinical care to the patients. Inadequate surgical repair after trauma, recurrent sinus of the cheek due to a retained foreign body[10] and chronic pericoronal infections should also be considered as a part of a differential diagnosis for any orofacial skin lesions. This highlights the importance of communication and integration between various medical and dental specialties, as the above mentioned cases were inappropriately diagnosed and treated for different reasons.

CONCLUSION

The above cases with varying etiology had one treatment in common which included, removing the fistula lining with treating the primary cause and there is no recurrence with a follow up period of three months. Hence adequate history and investigations are essential in decision making for the treatment plan and good care for the patient.

Financial support and sponsorship:
Nil.

Conflicts of interest:
There are no conflicts of interest.

References

1. SamirN, Al-Mahrezi A, Al-Sudairy S. Odontogenic Cutaneous Fistula: Report of two cases. *Sultan Qaboos Univ Med J.* 2011;11(1):115-8.
2. Cheung A, Hudson JW, Viehweg T. Unique pericoronal orocutaneous fistula: sequelae of chronic subclinical inflammation. *J Oral Maxillofac Surg* 2005;63(11): 1676-9
3. Anyanechi CE. Oro-cutaneous fistula of dental origin: report of a case and review of the literature. *J. College of Med,* Dec 2012;17(2).
4. Alasseri NA, Assari AS, Facial fistula.Long-term sequelae of a complicated exodontia. *Saudi Med J*. 2015; 36(4): 490–493
5. Vermani M, Kalia V, Singh S et al., "Orocutaneous fistula or traumatic infectious skin lesion: a diagnostic dilemma," *Case Rep Dent.* 2015; 2015: 353069.
6. JanevE and Redzep E. Managing the Cutaneous Sinus Tract of Dental Origine. *Open Access Maced J Med Sc*i. 2016 Sep 15; 4(3): 489-492
7. ArunKumar KV, Deepa D .Migratory and misleading abscess of orofacial region. *J Indian Soc Periodontol*. 2015; 19(4): 470-473.
8. Abuabara A, Schramm CA, Zielak JC, Baratto-Filho F. An Dental infection simulating skin lesion. *An Bras Dermatol*. 2012;87(4):619-21.
9. Ranga U, Aiyappan SK, Veeraiyan. A Case of Intermittently Discharging Skin Lesion: Orodentocutaneous Fistula Demonstrated on CT Fistulography. *J Clin Diagn Res*. 2014;8(8):09-11.
10. Auluck, A. G. Behanan, K. M. Pai, C. Shetty. Recurrent sinus of the cheek due to a retained foreign body: report of an unusual case. *Br. Dent. J* 2005; 198: 337 – 339.

How to cite this article:
Karthikeyan GR *et al*.2018, Various Origins of Oro-Facial Fistulas: A Case Series. *Int J Recent Sci Res.* 9(3), pp. 25215-25217. DOI: http://dx.doi.org/10.24327/ijrsr.2018.0903.1816

****