CASE REPORT

MUCOCELE IN PAEDIATRIC PATIENTS : A CASE REPORT

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ABSTRACT

Mucocele is one of the most common lesion of the oral mucosa, resulting from the accumulation of mucous secretion which may be due to trauma, lip biting habits or alteration of minor salivary glands. It has an approximate prevalence of around 2.4 cases per 1,000 people. Thus being the most common minor salivary gland lesion in children and young adults. The diagnosis of mucoceledepends mostly on clinical findings and history. Various type of treatment options include marsupialization, surgical excision, dissection, laser ablation, cryosurgery, electrocautery, intra-lesional steroid injections and irradiation. Here we will report a case of mucocele in a pediatric patient managed by Electrocautery.

KEY WORDS

extravasation, minor salivary glands, self-inflicted habits, pediatric patient mucocele

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INTRODUCTION

Mucocele is one of the most common benignlesion of the oral cavity which is derived from a Latin word which etymologically means cavity filled with mucous (muco means mucous and coele means cavity)[1,2,3]. Apart from oral cavity these lesions can also appear in appendix, gallbladder, paranasal sinuses and lacrimal sac. Oral mucoceles represent an estimated 2% to 8% of all mucoceles[4].In the oral cavity it results from the rupture of salivary gland duct with spillage of mucin into surrounding soft tissue. In children and young adults it is commonly seen as a dome shaped mucosal swelling. The lower lip being the most common site of occurrence in oral cavity, approximately 60% of the cases. Apart from lower lip, it can be seen in other areas like where there is an opening of the accessory salivary duct like buccal mucosa, anterior ventral tongue, floor of the mouth, soft palate, retromolar area and rarely on upper lip[5]. Mucoceles generally remain asymptomatic but at times it interferes with speech, chewing, or swallowing causing discomfort. It may arise within a few days after minor trauma and can persist unchanged for months ranging from a few millimeters to a few centimeters if intervention is not done. If left without intervention, an episodic decrease and increase in size may be observed, based on rupture and subsequent mucin production[6]. Some habits such as incorrect use of pacifiers or constant biting at the same place might also lead to these formations. Treatment options include marsupialization, surgical excision, dissection, laser ablation, cryosurgery, electrocautery, intra-lesional steroid injections and irradiation. In this article we will describe a case of mucocele of a paediatric patient occurring on the lower lip which was treated using electrocautery[2].

CASE REPORT

A 5 year old girl reported to the Department of Paediatric and Preventive Dentistry, Guru Nanak Institute Of Dental Sciences And Research with chief complain of a painless swelling on the inner aspect of lower lip for the past 2 to 3 weeks. The gurdian accompaning the patient also reported that

Fig. No. 1

Fig. No. 2

Fig. No. 3

Fig. No. 4

Fig. No. 5

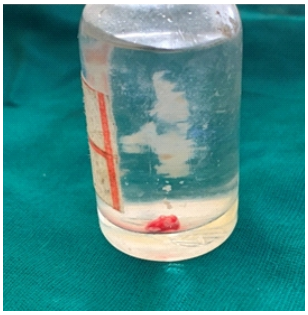

Fig. No. 6

MICROSCOPIC PATHOLOGY REPORT:

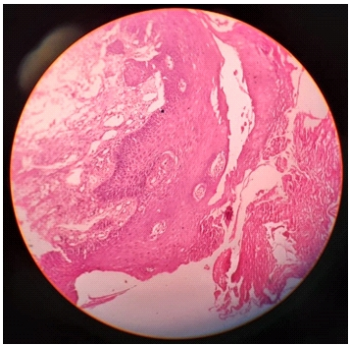

Fig No. 7

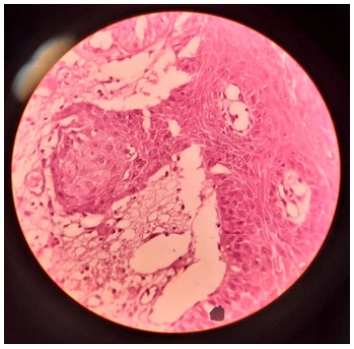

Fig No. 8

the swelling was initially small but later on its size increased gradually. A habit of lip biting habit was noted. No significant medical history was present. Intraorally on examination a round, solitary, fluctuant swelling was noted on the inner aspect of the lower lip at the central incisor region. Swelling was 6-8 mm below the vermilion border of the lower lip near about on the midline measuring approximately 2-3 mm in diameter as shown in figure no. 1 & 2. The swelling was slightly bluish-white in color when compared to that of the adjacent mucosa as seen in Figure no 2.Any other oral anomalies were not detected and there was no difficulty in speaking or chewing. The basic blood investigations were done which included Hb, TLC, DLC and viral markers. Verifying the reports to be normal the patient was recalled for the surgery. Local anesthesia was administered around the lesion and the mucocele was excised using 5 mm tip of a portable, high temperature electrocautery working on a power supply of 230V, 0.9A and 1.5-1.7MHz frequency (Figure No 4,5).

Post Surgical Site was Inspected (fig no 6). The lesion (fig.no.7) was sent to the Oral pathology laboratory for further tissue analysis and histopathological report

MICROSCOPIC PATHOLOGY REPORT:

H & E stained sections (fig no 7,8) reveal the presence of stratified squamous 'epithelium supported by fibro vascular connective tissue stroma. There is presence of a mucin pooled area surrounded by areas', of granulation tissue and chronic inflammatory cell infiltrates chiefly composed of lymphocytes and macrophages. No signs of malignancy could be noted in the above sections.

The overall histopathology is suggestive of mucous extravasation cyst.

HISTO-PATHOLOGICAL DIAGNOSIS:

The overall histopathological features are suggestive of Mucous extravasation Cyst.

DISCUSSION

Oral mucoceles are benign masses of soft tissues and are clinically present by single or multiple, oval or spherical, smooth, bluish or translucent, fluctuant nodule. It is the most common minor salivary gland lesion which affects the general population and is usually asymptomatic. They can be classified as extravasation or retention type. The extravasation type is being a pseudocyst without defined walls, caused due to mechanical trauma of the excretory duct of the gland leading and thus leading to rupture with extravasation of mucin into the connective tissue stroma, not lined by epithelial lining. Mostly it occurs on lower labial mucosa, buccal mucosa and retromolar area. The mucus extravasation triggers a secondary inflammatory reaction due to which patients report the periodic discharge of viscous fluid from the lesion[1,2]. The retention type is less common than extravasation and usually affects older individuals[2]. It is seen frequently on upper lip, hard palate, floor of mouth and maxillary sinus. In mucous retention phenomena, mucus may be retained in the duct or acini as a result of duct obstruction by sialolith or strictures[7]. The mucocele can be treated by a number of approaches that includes excision by a scalpel, micromarsupialization, medication like steroids, cryosurgery, laser ablation (CO2, Er, Cr: YSGG), electrosurgery/electrocautery.

Advantages of electrocautery observed in these case are minimal bleeding, the electrode cuts on its side as well as on its tip, cuts are made with ease when the device is set correctly, hemostasis is immediate and consistent, the wound is nearly painless and the tip is self-disinfecting.

CONCLUSION

Thus it can be concluded that Mucocele are mostly benign and self-limiting nature, primarily can be diagnosed on the basis of clinical findings and history reported by the patient, followed by histopathological evaluation. Management of Mucocele becomes challenging because of high possibility of recurrence, however if no spontaneous regression occurs, there is a higher clinical success rate with a better prognosis. Electro-cautery can be chosen as one of the options with significant results. A major part of the prognosis of treatment depends on regular followup of the patient interventing any recurrence at the earliest.

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