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## CASE STUDY

### MUCUS RETENTION PHENOMENON IN HIV/AIDS PATIENTS: CASE REPORTS

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#### ABSTRACT

The term mucocele is used, clinically, as a generic term to refer to phenomena of retention and extravasation of mucus, and they can only be differentiated after the histopathological analysis. It affects the lower lip more frequently, mainly due to the fact that this site is more prone to injury, and it is nowadays an increase in cases of mucoceles in HIV/Aids patients, with a predictability in the use of highly potent antiretroviral therapy and marked increase in xerostomia in its degrees from mild, moderate to severe, and is an important facilitator in the development of pathology. Since the beginning of the Aids epidemic, much has been studied about oral manifestations. We can see important achievements in front of the new knowledge, but nevertheless they end up having a different course, in front of the new highly effective antiretroviral therapies called HAART. Undesirable side effects often arise, such as lipodystrophy, anorexia, headaches, vomiting, anemias, platelet disease, xerostomia and consequently salivary lithiasis, forming mucus retention of salivary glands, both major and minor. As a result, more and more constant cases of nasal and mucocele appearance in the oral cavity in HIV/Aids patients using these medications have been diagnosed. The ideal treatment for any form of mucocele is the excision, its complete surgical removal along with the accessory glands that nourish the lesion. Patients should be advised of the etiological factors involved, since their permanence will inevitably lead to recurrence of the lesions.

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#### INTRODUCTION

Mucocele is the clinical term that define the phenomenon of mucosal extravasation or mucus retention cyst. The mucoceles are related to the minor salivary glands, especially in the lower lip region. characterized by a bullous lesion with clinical characteristics of transparency against the liquid contents inside. This fluid is the retained mucus, becoming thicker making it even more difficult to eliminate it inside the lesion. Its size is variable, ranging from millimeters to centimeters (2 to 3 cm). The treatment of choice continues to be the surgical removal of the lesion and the associated minor gland. The gland should be fully removed avoiding further obstruction at the site of the affected region. Mucus retention cysts consist of the result of obstruction of the salivary flow caused by the formation of calculi, peri-ductal scars or tumor compression. Often found on the upper lip, palate and buccal floor. Histologically, the cyst is lined by columnar pseudostratified ductal epithelium or cuboid and filled by mucus and / or calculus. (Douglas 2009, Ata-Ali et al., 2010, Andrade et al., 2011, Rao et al., 2012, Neville et al., 2016, Santos et al., 2017). Several studies on the four continents, from the beginning of the Acquired Immunodeficiency Syndrome to the

present day, confirm the prevalence of oral manifestations in HIV seropositive patients, with the most frequent being candidiasis, hairy leukoplakia, periodontal diseases, ulcers of the most varied forms, herpes simplex and zoster, Kaposi's sarcoma and non-Hodgkin's lymphoma (Kinshuck et al., 2012, Bellani et al., 2012, Kinshuck et al., 2012, Danelon et al., 2013, Bezerra et al., 2016). With the onset of highly potent antiretroviral therapy (HAART) popularly known as "cocktail", some researchers have found a marked reduction in the occurrence of opportunistic infections. According to Santos et al. 2017, the opportunistic processes of infectious nature decreased, and the prevalence of oral manifestations also decreased significantly. Reznick et al., 2007, concluded that oral manifestations even in patients taking antiretroviral medications continue unchanged, but two new manifestations have been observed: decreased salivary flow and loss of taste. Cavasin et al. 2009, conducted a study measuring the salivary flow of HIV + patients who used the multiple therapies, and concluded that patients exhibited xerostomia in its various forms from mild to moderate to severe. HIV/Aids patients using HAART therapy, according to Reznick et al., 2007; Gaurav et al., 2015, Hirata, 2015, reported that there was a significant decrease in the presence of oral manifestations, but on the other hand some adverse reactions in the oral cavity began to appear, such as erythema multiforme, lichenoid reactions, and xerostomia as a function of didanosine, causing

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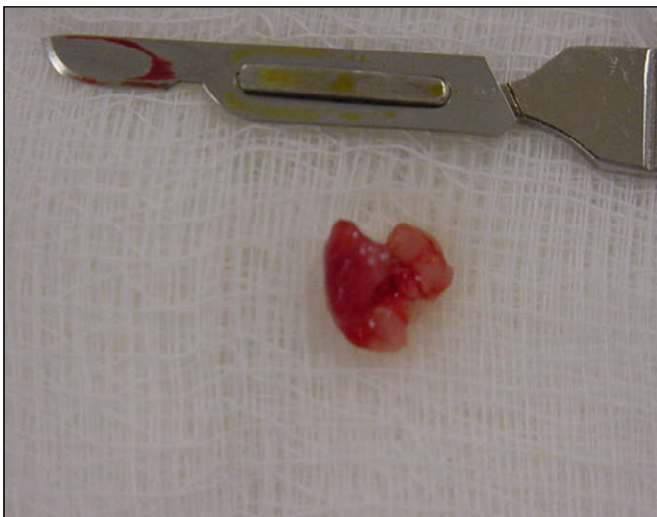
clogging of salivary glands and consequently the increase of saliva retention cysts. Silva *et al.*, 2011, related xerostomia to multiple factors, such as stress, depression, various types of drugs, diabetes, hepatitis, neoplasias, and especially HIV + patients who use antiretroviral therapies, until now published worldwide.

### Clinical Case I

Patient, 28 years old, white male skin, MSM, HIV, CD4 T-lymphocytes = 433 cells / mm<sup>3</sup> of blood, and Undetectable Viral Load, attended CEAPE - Center for Patient Studies and Care Specialties of the Faculty of Dentistry of the Paulista University (FOUNIP), with complaint of "a blister in the lower lip", without painful symptomatology, whitish color present for two months, which increased and decreased in size periodically. After clinical examination, as a probable diagnosis mucocele or mucus retention cyst was suggested. Laboratory tests of hemogram and coagulogram were requested to perform the biopsy, because according to the patient's report in the anamnesis, he presented with a decrease in platelets and at the time he was being treated for anemia. The lesion was surgically removed with safety margins, the patient returned after seven days for suture removal and the lesion remission was verified



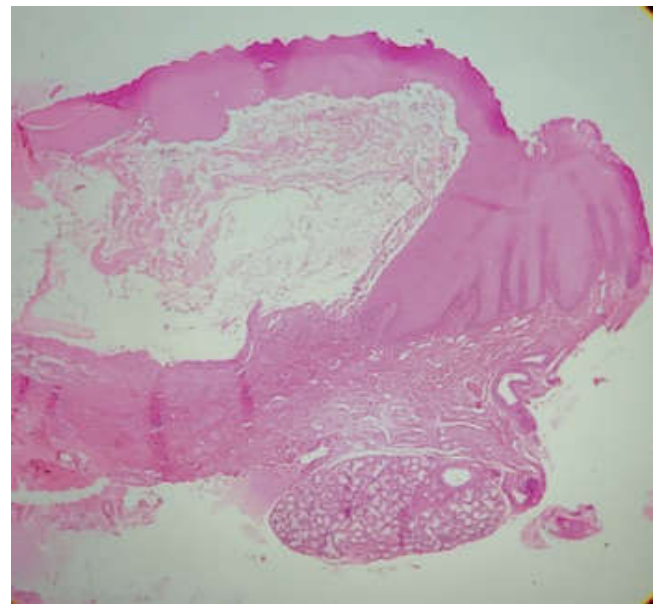
**Fig. 1. Mucocele on lower lip**



**Fig. 2. Surgical removal of the gland**



**Fig. 3. Suture after surgical removal of mucocele**



**Fig. 4. Photomicrograph of Mucocele 40x magnification H&E: Note the cavity retaining extravasated mucous material. Below presence of minor mucosal salivary gland**

### Clinical Case II

32-year-old black male patient, injecting drug user (IDU) and heterosexual (HET) patient, in Aids for 5 years, with T-CD4 lymphocytes = 95 cells / mm<sup>3</sup> blood, Loading Viral = 55 thousand copies per mm<sup>3</sup> blood, attended the CEAPE - Center for Studies and Assistance to Special Patients of FOUNIP, and reported in the anamnesis that at the present moment the treatment of tuberculosis has ended and routine medical follow-up is performed. In the physical examination, the volume showed a rounded volume increase in the lower lip, on the right side, asymptomatic, with dimensions of approximately 1.5 to 2.0 cm in its largest diameter, covered by normocorate mucosa and with floating consistency at palpation. The vermilion region of the lower lip was resected and the patient himself reported that he practiced sucking in an attempt to moisten or burst the lesion. The laboratory tests were able to intervene and total excision of the salivary gland was performed, and after one week the stitches were removed and the lesion treated successfully and successfully.



Fig. 5. Clinical lesion on the lower lip



Fig. 6. Total removal of gland



Fig. 7. Total surgical removal of the lesion

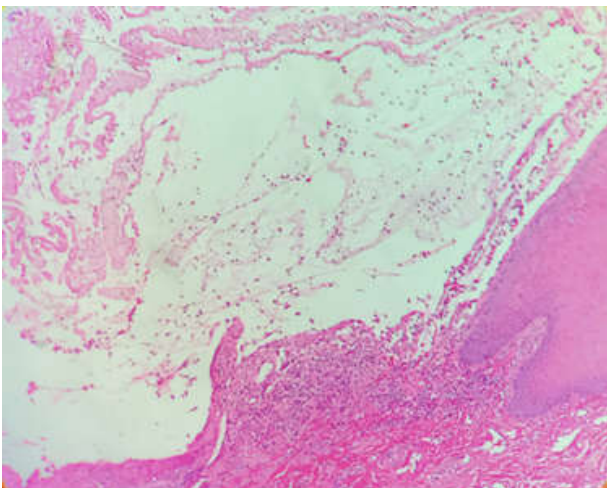


Fig. 8. Mucocele Photomicrograph, 400x magnification, H&E: Note the presence of a cavity containing extravasated mucous material and connective tissue rich in xanthomatous macrophages

## Conclusion

The manifestations of mucoceles are increasingly frequent in the oral cavity of HIV / AIDS patients. It is proven that the use of highly potent antiretroviral medications (HAART), promote xerostomia and formation of salivary calculi, consequently the probability of formation of mucoceles, become more evident and increased.

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