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Oral Hairy Lekuoplakia and another Lesion in HIV Patients, What the Difference? A Review Article

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ABSTRACT: Introduction : Oral Hairy Leukoplakia (OHL) is a disorder of mucocutaneous epithelial cell hyperplasia caused by the Epstein-Barr virus (EBV), and is the first pathological manifestation associated with EBV infection. OHL cases are usually found in immunodeficiency conditions due to HIV infection, but can also be associated with other immunosuppressive conditions such as organ or bone marrow transplantation, chemotherapy, haematological malignancies and long-term use of systemic steroids.10 The occurrence of OHL in individuals without HIV infection has a low frequency although a number of cases with chronic immunosuppression are common.

Discussion: OHL has been misdiagnosed with another lesion in oral cavity as candidiasis oris, especially in immunodeficient patients, so its difference is often inappropriate. This review is expected to help provide knowledge about OHL cases and another lesion might had similarities in HIV Patients.The clinical manifestations of OHL are asymptomatic white lesions, choppy and painless, plaques that cannot be removed by rubbing, often located bilaterally on the lateral border of the tongue. OHL is a fairly mouth problem. This condition is considered risky and can develop into cancer. Within 15 years, squamous cells were found in 3 to 17.5 percent of leukoplakia sufferers.This mouth problem is more common in elderly patients who are in the age range of 40 to 70 years.

Conclusion :OHL is often misdiagnosed with other lesions in the oral cavity in HIV patients. However, there are differences in etiology, clinical manifestations and diagnostic investigations to confirm differences with some other lesions.

Keyword : OHL, manifestation, HIV

I. INTRODUCTION

Oral Hairy Leukoplakia (OHL) is a disorder of mucocutaneous epithelial cell hyperplasia caused by the Epstein-Barr virus (EBV), and is the first pathological manifestation associated with EBV infection. The clinical manifestations of OHL are asymptomatic white lesions, choppy and painless, plaques that cannot be removed by rubbing, often located bilaterally on the lateral border of the tongue[1].

OHL is a fairly mouth problem. This condition is considered risky and can develop into cancer. Within 15 years, squamous cells were found in 3 to 17.5 percent of leukoplakia sufferers.This mouth problem is more common in elderly patients who are in the age range of 40 to 70 years. The incidence of this disease in patients in their 20s is relatively low.In addition, this disease is more common in male patients than female patients, with a male to female ratio of about 2: 1[2,3].

OHL is a condition that might develop from risk factors. Risk factors such as smoking,dentures and biting habit. OHL might occurs when mouth reacts to chronic irritation of the mucous membrane of the mouth. This condition is different from other oral problems that have similar symptoms, such as thrush or lichen planus, because it has the potential to develop into oral cancer.However, not all cases of leukoplakia turn into oral cancer. Another finding was OHL prevalence is prediction for immunodeficiency patients. Prevalence 20% until 48% in patients with Human Immunodeficiency Virus (HIV) Patients[4,5].

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individuals without HIV infection has a low frequency although a number of cases with chronic immunosuppression are common[6].

OHL has been misdiagnosed with another lesion in oral cavity as candidiasis oris, especially in immunodeficient patients, so its difference is often inappropriate. This review is expected to help provide knowledge about OHL cases and another lesion might had similarities in HIV Patients.

II. DISCUSSION

Clinical Manifestation of OHL

OHL clinically presents as a well-defined white or gray-white plaque with an asymptomatic wavy texture.20 The "hairy" surface varies in size from a few millimeters to extensive involvement from the tongue to the oral cavity[7]. These lesions usually occur on the lateral side of the tongue. but it can also be on the ventral and dorsal surfaces of the tongue, and, rarely, on the cheek mucosa.The characteristic appearance of OHL is caused by hypertopy of the tongue papillae. In general, these lesions are painless and cannot be relieved by blunt manipulation[8,9]. When the lesions become symptomatic, they may result from elevation or are co-infected with candidiasis.

Figure 1. Lateral view of the tongue with Oral Hairy Leukoplakia[10]

In HIV patients, the presence of OHL can provide a predictor of immune system condition and infection progression, because it is believed to be related to the number of CD4 + T cells. The rare incidence of OHL in healthy individuals and the association between OHL and HIV-positive patients of low CD4 + T cell counts as well as high viral loads suggest a role for EBV co-stimulation by HIV or an important role for CD4 + T cells in protection against this disease[11].

OHL is not considered a prognostic factor except in AIDS patients. However, previous cases of OHL with hematologic malignancy have been reported in patients after chemotherapy, where the immunosuppression was more severe. Early recognition of OHL lesions is essential because of the high likelihood of an underlying immunodeficiency state and a potential indicator of poor prognosis[12].

Another Lesion Similar to OHL

Frictional keratosis is a reactive epithelial lesion that often occurs on the lateral part of the tongue and cheek mucosa, but more commonly occurs on the dorsal surface of the tongue. Physical and histological examination showed the hyperkeratotid surface was choppy with bacterial colonization, rarely found candida and intercellular edema in the upper cell layer which resembled ballooning cells. The nuclei are usually compressed and may appear as coilocytes. However, in frictional keratosis, there is no evidence of EBV[8].

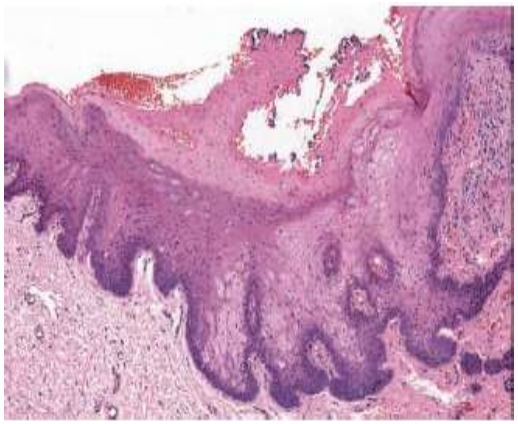

Figure 2. Histopathological features of frictional keratosis on the tongue. A rough surface with keratin appearance, hyperkeratosis with bacterial colonization and focal intercellular edema in the upper spinous layer similar to ballooning cells. (Haematoxylin-eosin stain, magnification 100x)[8]

Another Lesion Might Related to HIV Patients

Lichen planus is a chronic inflammatory immunologic disease that manifests on the mucosa and skin with an unknown etiology. One of the clinical manifestations of oral lichen planus is the form of plaque that can resemble OHL. White plaques can appear on the lateral part of the ligaments and cheek mucosa. Cures and clinical relapses are frequently reported. OHL and oral lichen planus can be differentiated based on histopathological examination. Histopathological examination showed cellular infiltrates in the superficial mucous membrane consisting of

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leukocytes, basal layer cells, and ortho sequences and parakeratosis replacing keratinization. Another feature is the presence of Civatte bodies in the basal layer and epithelium.[2,14,15]

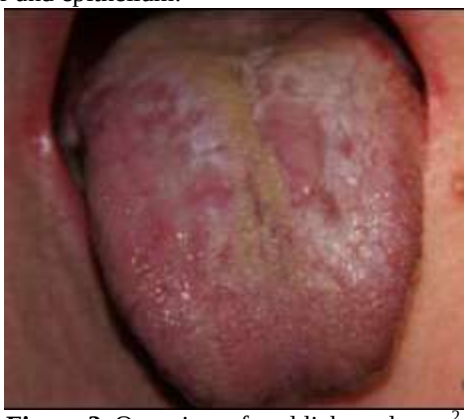

Figure 3. Overview of oral lichen planus.[2]

Candida albicans is the most dominant yeast colony in the oral cavity in both healthy and HIV-infected individuals in both developed and developing countries. Pseudomembranous candidiasis is the most common clinical presentation of candidiasis infection. The prevalence varies from 55.8% to 69.7% .[4]

The clinical manifestation of pseudomembranous candidiasis is white or yellow patches or plaques that are located anywhere in the oris cavity area and can be removed or removed. When removed, an erythematous surface will appear which may appear bleeding[4,15], can be seen as in Figure 4. Candidiasis can cause pain and discomfort.

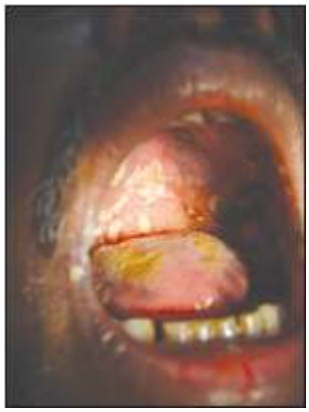

Figure 4. Pseudomembranous candidiasis lesion[14]

Diagnosis is in the form of finding evidence of Candida albicans both on smear, biopsy, and culture and also a response to anti-fungal therapy.Clinical findings are generally sufficient to establish a presumptive diagnosis in patients with HIV infection. Further definitive criteria are needed to demonstrate the presence of EBV in the lesion, which is established by histopathology, exfoliative cytology, in situ hybdridization, immunohistochemistry or polymerase chain reaction[16,17].

III. CONCLUSION

OHL is often misdiagnosed with other lesions in the oral cavity in HIV patients. However, there are differences in etiology, clinical manifestations and diagnostic investigations to confirm differences with some other lesions.

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