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CHARACTERISTICS OF MORPHOLOGICAL ELEMENTS OF LESIONS OF THE ORAL MUCOSA IN PATIENTS WITH HIV INFECTION

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Abstract

The human immunodeficiency virus remains a global public health problem, having claimed more than 35 million lives to date. Oral lesions in people infected with HIV are among the first symptoms of the disease, which are characterized by great diversity. WHO suggests using oral mucosal diseases in HIV infection as an important diagnostic criterion. Signs of HIV in the oral cavity are inflammatory-dystrophic changes in the mucous membrane. In essence, HIV suppresses the proliferation of CD4+ T-lymphocytes, thereby significantly reducing the production of these important lymphocytes. The aim of this study was to identify the characters of the most typical morphological changes in the oral mucosa in patients with HIV.

The study included 190 patients (group I HIV n= 90, group II control group n=100) with lesions of the oral mucosa in the age range 29 – 64 years. The control group involved 45 subjects without HIV with lesions of the oral mucosa, their age: 25 to 67. The content of cytokines IL-2, IL-4, IL-10 and γ-IFN in the oral fluid was determined by ELISA. Biopsies taken from the buccal mucosa and gums were subjected to histological examination. Immunohistochemical study of mucous membrane biopsies was carried out using monoclonal mouse antibodies to CD3 + and CD20+.

The morphological signs may be conditionally subdivided into indicators of severity and activity of inflammation. The healing of oral mucosa injures occurred due to the higher density of newly formed blood vessels and the appearance of collagen fibers. Significant morphological changes developed in the microvasculature have dual influence: it makes worse the tissue trophism and accelerate the healing with differentiation into coarse-fibrous connective tissue. The immunohistochemical findings indicate the decrease in tissue local immune response. An increase in pro-inflammatory IL2 and a decrease in anti-inflammatory IL4 were detected in comparison with the control group.

Keywords: Morphology, oral mucosa, cytokines, immunohistochemistry, HIV.

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