## Oral Manifestations in Human T-lymphotropic Virus Infected Patients

Manifestaciones Orales en Pacientes Infectados por el Virus de Células T Humanas

Ricardo Roberto de Souza Fonseca<sup>1,2</sup>; Antônio Carlos Rosário Vallinoto<sup>1,2</sup>; Gemilson Soares Pontes<sup>3</sup> & Luiz Fernando Almeida Machado<sup>1,2</sup>

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## Dear Editor

Human T-lymphotropic virus (HTLV) was first detected and described in 1979, since then HTLV has been a major public health concern, because it is estimated that over 5–10 million people worldwide are infected by this virus. HTLV is classified into the family Retroviridae, subfamily Orthoretrovirinae, genus Deltaretrovirus, which has four types of human retroviruses, HTLV-1, HTLV-2, HTLV-3 and HTLV-4, being HTLV-1 the most prevalent and endemic in southwestern Japan, Caribbean, Iran, Latin American countries, as Brazil, central and southern regions of Africa. Otherwise, HTLV-2 is more prevalent among indigenous tribes of Central, North and South America. Recently, HTLV-3 and HTLV-4 were identified only in African continent (Vallinoto *et al.*, 2022).

HTLV human-to-human transmission happens because of three major transmission pathways: vertical transmission via breastmilk, sexual intercourse and blood transfusions. HTLV-1 is mainly transmitted through direct cell to cell contact, but transmission could also happen by clonal expansion of HTLV-1 infected T cells (Kalinichenko *et al.*, 2022). Although HTLV and Human Immunodeficiency Virus (HIV) share similarities among transmission pathways and pathophysiology, their clinical signs and manifestations are divergent. In HTLV infections, patients commonly manifest myelopathy/tropical spastic paraparesis (HAM/TSP) and adult T-cell leukemia/lymphoma (ATLL), lymphoma/leukemia, neurodegenerative diseases, uveitis, infective dermatitis, Sjogren's syndrome, bronchiectasis, bronchitis and bronchiolitis, rheumatoid arthritis, arthritis, kidney and bladder infections, dermatophytosis, community acquired pneumonia, strongyloides hyperinfection syndrome, tuberculosis, liver cancer, lymphoma other than adult T-cell leukemialymphoma and cervical cancer (Brites *et al.*, 2021; Vallinoto *et al.*, 2022).

Unlikely HIV oral manifestations which are extensively studied in literature, there are few studies about oral manifestations among HTLV infected patients. The oral cavity is an extension of the skin and is consisted of a stratified squamous epithelium, which may be a viable area for clinical alterations mainly individuals with Sjogren's syndrome. in neurodegenerative diseases and skin diseases as dermatitis, which presents oral clinical signs reported in the literature. In Brazil, HTLV oral manifestations was reported by Martins et al. (2010) and Lins et al. (2012) in the southeast and northeast regions, respectively, in both studies the most common oral manifestations included were periodontal disease, xerostomia, candidiasis, fissured tongue and tongue papillae loss.

<sup>&</sup>lt;sup>1</sup> Biology of Infectious and Parasitic Agents Post-Graduate Program, Federal University of Pará, Belém, Pará, Brazil.

<sup>&</sup>lt;sup>2</sup> Virology Laboratory, Institute of Biological Sciences, Federal University of Pará, Belém, Pará, Brazil.

<sup>&</sup>lt;sup>3</sup> Laboratory of Virology and Immunology, National Institute of Amazonian Research (INPA), Manaus, AM, Brazil.

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Therefore, far more studies on this subject are needed in order to report oral manifestations and prevent any kind of quality-of-life decline, but also the classification of HTLV oral manifestations may help infected individuals start treatment earlier. This paper has some limitations since there is a lack of full clinical data on the prevalence and incidence of specific oral lesions that might appear, as well as the location in the oral cavity.

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Corresponding author: Ricardo Roberto de Souza Fonseca Federal University of Pará Augusto Correa 1 Guama 66075-110 Belém - PA BRAZIL

E-mail: ricardofonseca285@gmail.com