



CLINICAL PROFILE OF HUMAN T-LYMPHOTROPIC VIRUS TYPE I INFECTION IN A PEDIATRIC POPULATION IN A REFERRAL HOSPITAL IN COLOMBIA.

Mejia Juliana 1-3, Rojas Juan Pablo 2..

¹ Pediatric Resident, Universidad Libre seccional Cali, Cali, Valle del Cauca, Colombia ; ² Department of Pediatrics, Division of Infectious Diseases, Fundación Clínica Infantil Club Noel, Cali, Valle del Cauca, Colombia. ³ Pediatric Research Group GRINPED COL 0141920. Correspondance: juliana-mejia@unilibre.edu.co.

Background:

The Human T-lymphotropic virus type 1 (HTLV-1), affects around ten to twenty million people worldwide, predominantly in intertropical regions (Africa, Japan, Melanesia, Australia, and South America Pacific Coast). The most common disorders associated are T-cell leukemia/lymphoma (ALT) and HTLV-1-associated myelopathy (HAM). Most studies in pediatric population focus on ALT and HAM, however alternative clinical manifestations (cutaneous, pulmonary, inflammatory) need to be considered to improve diagnosis and treatment in this age group. Objective: Describe a cohort of juvenile patients with confirmed HTLV-1 infection that showed clinical manifestations other than ALT and HAM symptoms.

Methodology:

Descriptive, retrospective cohort study, conducted in our referral pediatric hospital in Cali, Colombia. Included pediatric patients (1 to 18 years of age) diagnosed with HTLV-1 infection, between January 2017 to March 2020.

Results:

Twelve patients were included, seven males and five females. Eleven patients were from and resided in the Colombian Pacific coast.

Ten patients showed nutritional deficiencies. In terms of associated diseases and opportunistic infections, none had a positive HIV ELISA test and stool tests were all negative for Strongiloydes. Four presented infective dermatitis, and two showed lesions suggesting scabies. Eight patients presented respiratory symptoms with chest CT scans showing signs of chronic inflammation, bronchiectasis, and subpleural bullae as the major findings. Additional tests were carried out in bronchoalveolar fluid, four had positive galactomannan test, suggesting pulmonary aspergillosis, two exhibited positive gene PCR testing for Mycobacterium tuberculosis. Regarding inflammatory diseases, one patient presented with symptoms of Inflammatory Bowl Disease, with biopsy confirming Crohn's disease. Another patient presented abrupt vision loss, diagnosed with Vogt Koyanagi Hadara Syndrome after ophthalmological evaluation .

Conclusions:

It is important to consider alternative manifestations of HTLV-1 infection in the pediatric population, including pulmonary disease, opportunistic co-infections, and inflammatory disorders. It is crucial to diagnose this disease in childhood to reach a better control of this neglected infection that affects predominantly vulnerable population in low-income countries.

Case	Age at diagnosis	Genre	Place of origin	Percentile BMI -CDC	Lung damage	Pulmonary Coinfection	Autoimmunity	Dermatologic findings
1	14 years old	Male	Buenaventura, Valle de Cauca	<P 5	Yes	Pulmonary aspergillosis	No	No
2	8 years old	Female	Mosquera, Nariño	<P 5	Yes	Pulmonary aspergillosis	No	No
3	10 years old	Female	Buenaventura, Valle del Cauca	<P 5	Yes	Pulmonary tuberculosis	No	Infective dermatitis
4	8 years old	Male	Buenaventura, Valle del Cauca	<P 5	Yes	Pulmonary tuberculosis	No	No
5	16 years old	Male	Timbiquí, Cauca	<P 5	Yes	None	No	Infective dermatitis
6	6 years old	Female	Buenaventura, Valle del Cauca	<P 5	No	Bacterial pneumonia	No	Infective dermatitis
7	6 years old	Male	Tumaco, Nariño	<P 5	Yes	None	Crohn's Disease	Scabies
8	7 years old	Female	Buenaventura, Valle del Cauca	<P 10	Yes	Pulmonary aspergillosis	No	Infective dermatitis
9	16 years old	Male	Buenaventura, Valle del Cauca	P 90	Yes	Pulmonary aspergillosis	No	No
10	1 years old	Male	Medio San Juan, Chocó	P 10	No	N/A	No	Scabies
11	12 years old	Female	Cali, Valle del Cauca	P 90	No	N/A	Vogt Koyanagi Hadara Syndrome	No
12	1 years old	Male	Buenaventura, Valle del Cauca	P 10	No	N/A	No	No

Table 1. Clinical characteristics of HTLV1 patients in present study.

Referencias:

Futsch N, Mahieux R, Dutartre H. HTLV-1, the Other Pathogenic Yet Neglected Human Retrovirus: From Transmission to Therapeutic Treatment. *Viruses*. 2017;10(1). Epub 2017/12/22. doi: 10.3390/v10010001.