

Poster presentation

Subacute progression of HTLV-I associated myelopathy/tropical spastic paraparesis in Peru: a report of 20 cases

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Background

The course of HTLV-1-associated myelopathy/tropical spastic paraparesis (HAM/TSP) is most frequently insidious. However, the disease evolves rapidly in a subgroup of patients. The purpose of this study is to better characterize subacute HAM/TSP.

Methods

We describe a series of cases with subacute progression of HAM/TSP from the HTLV-1 cohort at the Institute of Tropical Medicine Alexander von Humboldt in Lima. The diagnosis of HAM/TSP was based on WHO criteria. We used the IPEC (Instituto de Pesquisa Clinica Evandro Chagas) disability scale and the EDSS (Expanded Disability Status Scale) to evaluate HAM/TSP progression. Subacute progression was defined as the inability to walk unaided within two years after onset of lower limb symptoms. The HTLV-1 provirus load (PVL) was determined by SYBR-Green-based real-time quantitative PCR, using human endogenous retrovirus-3 as an internal reference. The PVL was expressed as the number of HTLV-1 copies per 10,000 peripheral blood mononuclear cells.

Results

In 2005–2008, 164 patients with HAM/TSP underwent neurological evaluation. Twenty subjects (12%) presented

subacute progression of HAM/TSP. The mean age at disease onset was 45 years (standard deviation (SD) 16; range 12–67); 9/20 (45%) were men. Among 144 subjects with slow progression, the mean age at disease onset was 42 (SD: 15; T-test $P = 0.4$); and 27 were men (19%; fisher's exact test: $P = 0.02$). Among those with subacute progression, the time to maximum disability ranged from 1 week to 24 months (mean: 10 months). Symptoms at disease onset were lumbar pain and weakness (15/20), sensory (3/20) and urinary symptoms (2/20). The mean EDSS score was 6.7 (range: 5–8.5) and the mean IPEC score was 20.25 (range: 15–29). After the initial, rapidly progressive phase, 9/20 patients were wheelchair-bound, 7/20 needed two walking-sticks, and 4/20 presented variable remission. Thoracic spinal cord magnetic resonance imaging (MRI) was performed in 14/20. In four subjects, there was hyperintensity in T2 with gadolinium enhancement; in one subject there was atrophy. The remaining MRIs were normal. Cyto-biochemical evaluation of cerebrospinal fluid was done in five subjects, no abnormalities were found. PVL results were available in 7 subjects with subacute progression (mean: 3135; SD: 1482), and 54 subjects with slow progression (mean: 3337; SD: 1896; T-test: $P = 0.8$).

Conclusion

By contrast with other reports, subacute HAM/TSP progression was associated with male sex, but not with provirus load in this setting. The outcome of subacute HAM/TSP is variable, and remission occurs occasionally.

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