



MEETING ABSTRACT

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# Prevalence and changing distribution of HTLV-1 and HTLV-2 infections in Spain

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From 15th International Conference on Human Retroviruses: HTLV and Related Viruses Leuven and Gembloux, Belgium. 5-8 June 2011

## Background

Most HTLV-1/2 infections in Spain have been found in native intravenous drug users carrying HTLV-2. However, the large immigration flows from Latin America and Africa during the last decade may have changed the prevalence and distribution of HTLV-1 and HTLV-2 infections, and hypothetically even open the opportunity for introducing the new HTLV-3 or HTLV-4 variants.

## Methods

A national multicenter, cross-sectional, national study was conducted in June 2009 recruiting consecutive adult outpatients attending 16 different hospitals in Spain. HTLV-1/2 antibodies were screened using an EIA and further confirmed using a commercial Western blot. Samples with indeterminate Western blot patterns were examined using specific PCR assays for discriminating HTLV types 1 to 4.

## Results

A total of 6,460 patients were studied. Overall, 40% were males and 88% were native Spaniards. The main origin of the immigrant population was Latin America (4.9%), Africa (3.6%) and other European countries (2.8%). A total of 9 individuals were seroreactive for HTLV antibodies (overall prevalence 0.14%). Of these, Western blot confirmed as HTLV-1 in 4 (prevalence 0.06%) and HTLV-2 in 5 (prevalence 0.08%). Another 2 specimens yielded EIA reactivity close to the cut-off and could not

be confirmed as positive for any of the HTLV types 1 to 4. All but one HTLV-1 cases were Latin Americans while all HTLV-2 cases were native Spaniards. The single HTLV-1 subject born in Spain was a 31 year-old woman who denied any significant risk behavior for HTLV exposure, including intravenous drug use, sexual promiscuity, transfusions or travel to Latin America. All HTLV-1 carriers but one were asymptomatic. A woman from the Dominican Republic was diagnosed with mild TSP/HAM.

## Conclusions

The overall prevalence of HTLV-1/2 infections in Spain remains low, although a shift in the relative proportion of HTLV-1 and HTLV-2 seems to have occurred in recent years. The recognition of HTLV-1 in a native Spaniard with lack of recognizable risk factors for HTLV-1 exposure should alert about a spread of HTLV-1 outside classical risk groups. No cases of HTLV-3 nor HTLV-4 infections have been identified so far in Spain.

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Published: 6 June 2011

doi:10.1186/1742-4690-8-S1-A86

**Cite this article as:** Treviño *et al.*: Prevalence and changing distribution of HTLV-1 and HTLV-2 infections in Spain. *Retrovirology* 2011 **8**(Suppl 1): A86.

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