Letter

Fifteen years of follow-up on HTLV-I positive and HTLV-I negative spastic paraparesis patients in southwestern Colombia, South America

In 1981, we described a focus of an impressive number of patients who lived in southwestern Colombia, South America, and presented a clinical picture of chronic idiopathic spastic paraparesis (CHISPA) called tropical spastic paraparesis (TSP) (Zaninovic et al., 1981). TSP was classified among the tropical myeloneuropathies of unknown origin (Roman et al., 1985) until 1985, when Gessain et al. (1985) and our group described the presence of HTLV-I infection in some patients (Rodgers-Johnson et al., 1985). After that, both TSP and HTLV-I associated myelopathy (HAM) described in Japan (Osame et al., 1986) were considered the same clinical entity (Roman and Osame, 1988). For the next 15 years (1981–1995), we followed these patients at the Valley University Hospital and Retrovirus Associated Multiple Disorders Foundation in Cali, Colombia, South America, and now consider it timely to briefly report our observations in an English publication. A wider discussion on this matter will be presented elsewhere (Zaninovic, 1996).

Over the years, we have been able to identify and follow 185 patients who originally came to us because of their CHISPA. Among these, 148 patients have met the HAM/TSP criteria (Osame, 1991). Anti-HTLV-I antibodies were detected by enzyme-linked immunosorbent assay (ELISA), particle agglutination (Fujirebio, Tokyo, Japan) or Western blot methods (Biotech Research Laboratories) as described previously (Zaninovic et al., 1988; Zaninovic, 1992). Some of them were also analyzed by the polymerase chain reaction to confirm the presence of the provirus of only HTLV-I, and not HTLV-II (Garcia-Vallejo et al., 1995; Beilke et al., 1991; Zaninovic et al., 1993). Of this group of patients, 51 (34%) were men; 83 (56%) were blacks, 62 (42%) mestizo and three (2%) South American Natives. The age of onset ranged from 13 to 83 years with a peak between 40 and 60 years old (Roman and Roman, 1988; Zaninovic, 1992; Zaninovic et al., 1988). The clinical picture has been very similar in all cases and also to that described for HAM/TSP in the literature (Nakagawa et al., 1995). Many investigations have been done on these patients and the main burden of those studies have been published elsewhere (Leon-S et al., 1994a, b; Leon-S and Zaninovic, 1994a, b, 1995a, b; Leon-S, 1996; Pradilla et al., 1989; Zaninovic, 1992; Zaninovic et al., 1986, 1988, 1993). Briefly, clinical neurophysiological studies have revealed a primary spinal involvement (Leon-S, 1992; Leon-S et al., 1994, 1996). Radiologically, the findings are quite close to those described in other HAM/TSP patients (Mattson et al., 1987; Alcindor et al., 1992; Gessain and Gout, 1992; Zaninovic, 1992). Pathologically, we have been unable to detect retroviral particles in the studied tissues (Tangy et al., 1995). HLA studies have shown that the affected population is closely related to Japanese and some clusters of Jamaican patients (Fujiyoshi et al., 1995; Leon-S et al., 1994a, 1995a; Sonoda et al., 1994; Blank et al., 1995). Phylogenetically, the viral strain was more related with the cosmopolitan rather than the African one (Miura et al., 1994). Although medical treatment was instituted with prednisolone, danazol, and/or vitamin C (Kira et al., 1991; Harrington et al., 1992; Leon-S and Zaninovic, 1994b), it has been impossible to control these treatments because patients often refuse to continue it or live in remote and isolated regions. However, we are certain that none have shown any disease improvement.

Among this group, 15 patients with HAM/TSP have died from the following causes: cardiac failure, 3; pulmonary tuberculosis, 3; massive gastrointestinal bleeding while receiving prednisone, 2; diarrhoea, 1; esophageal carcinoma, 1; pneumonia, 1; peritonitis after gallbladder resection, 1; chronic and severe tract urinary infection provoked by vesical catheter, 1; gunshot, 1; unknown cause, 1. None have died of adult T-cell leukemia or the like.

A more interesting finding was that 37 of the 185 patients (20%) were completely negative for any retroviral infection. After omitting two male mestizo patients with hereditary spastic paraplegia and one black and five Mestizo patients with possible multiple sclerosis (five women); 29 of the 37 patients (78%) remained as CHISPA. Twenty-three of them were men (79%), 18 were Mestizo and the others were black. We have been extremely cautious in diagnosing this disease, however, we have been unable to find any clinical or paraclinical difference worthy of publication between the positive and negative groups.

It has been interesting for us that our patients, regardless of their retroviral state, usually live or
These multiple inconsistencies strongly suggest that, in addition to the HTLV-I infection, cofactors other than malnutrition might be involved in the clinical establishment and evolution of CHISPA (Leon-S and Zaninovic, 1994a, 1995b; Leon-S and Alarcon, 1995). Clinical, epidemiological, radiological, biochemical, neuropathological and neurological worldwide studies which do not show a clear relationship between CHISPA and HTLV-I seem to add strength to this contention (Leon-S, 1996; Leon-S and Zaninovic, 1996; Leon-S et al, 1995b).

Therefore, due to these worldwide discrepancies including our observations in southwestern Colombia that have been collected during 15 years of intensive research, we consider that this problem requires some new ideas and deserves further investigation. The possibility of exploring other viral, parasitic or even toxicological causes for this disease in further studies is worthy of trying (Leon-S, 1996).

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Leon-S FE (1995). Kuru, volcanoes and 'slow' virus: it is not the song, it is the singer. ABC Acta Biol Col 2: 81–84.


