

Letters to the Editor

PGL-I ANTIBODY IN HIV INFECTED PATIENTS

Sir,

Following up the issue discussed at the Nairobi meeting, Kenya, in December 1987, on 'Interrelations of Tropical Diseases and HIV infection', sponsored by TDR and GPA,¹ we refer to a serological study in a group of 437 Cuban HIV infected patients. Their HIV infection was diagnosed by ELISA and confirmed by Western blot and all of them were in-patients at the AIDS hospital in Havana.

The control group was 313 blood donors without HIV infection (tested by ELISA) and without any known contact with leprosy (individual interview) and was also age-matched to the HIV infected patients.

An indirect ELISA was performed, according to the method described by González-Abreu *et al.*,² with sera separated from venous blood obtained from individuals of both groups. The antigen used was ND-A-BSA, obtained by courtesy of Dr V. Verez, Faculty of Chemistry, University of Havana, Cuba.

Among the 437 HIV infected patients, 65 (14.9%) had Optical Density (O.D.) readings higher than the established cut-off value (0.200). This figure was significantly higher (χ^2 , $p=0.05$) than that observed in the control group, where only 4 (1.3%) individuals were classified as seropositive. This result is worth noting if compared to that of a seroepidemiological study conducted in a leprosy endemic area, where 13,970 individuals from the general population were tested for PGL-I antibody. In this endemic area, only 3.03% of the tested individuals showed O.D. readings above the cut-off value. It is also noteworthy that O.D. readings higher than 0.400 in the HIV infected group were ten-fold (3.20%) those in the endemic population (0.33%) (Table 1).

None of the patients who showed O.D. readings higher than the cut-off value have developed any clinical signs of leprosy so far. It is true that few reports of a direct association between HIV

Table 1. Ranges of O.D. readings observed among HIV (+) patients, blood donors and endemic population

D.O ranges	HIV patients (%) ^{1,2}	Blood donors (%) ^{1,2}	Endemic population (%) ¹
<0.200	372 (85.12)	309 (98.7)	13547 (96.7)
0.200-0.299	33 (7.55)	3 (0.96)	273 (1.94)
0.300-0.399	18 (4.11)	1 (0.32)	104 (0.74)
> = 0.400	14 (3.20)	—	46 (0.33)
> = 0.200	65 (14.87)	4 (1.27)	423 (3.02)

(1) $\chi^2 = 217.481$ 6 gl $p = 5.390 \times 10^{-12}$.
(2) $\chi^2 = 40.649$ 3 gl $p = 4.409 \times 10^{-10}$.

infection and leprosy have been published, but it is recommended that workers remain vigilant, because the effects of HIV infection in a leprosy endemic area might be quite unexpected.³ It has been suggested that HIV-induced immunosuppression might increase the prevalence of multibacillary forms of leprosy,⁴ but, because of the long incubation period of leprosy, patients could die from other HIV-associated causes before leprosy becomes clinically apparent.

All these arguments are of great importance in relation to the results observed in this study, because if these patients are really infected with *Mycobacterium leprae* they might become a silent source of infection in their environment.

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References

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- ⁴ Ponnighaus JM, Mwanjasi LJ, Fine PEM, Shaw MA, Turner AC, Oxborrow SM, Lucas SB, Jenkins PA, Sterne JAC, Bliss L. Is HIV Infection a risk factor for leprosy? *Int J Lepr*, 1991; **59**: 221-8.