

## CARTA AO EDITOR

### HUMAN IMMUNODEFICIENCY VIRUS INFECTION IN SELECTED HEMODIALYSIS PATIENTS IN BELO HORIZONTE, BRAZIL

Information about Human Immunodeficiency Virus (HIV) seropositivity in hemodialysis patients is rare. Peterman *et al*<sup>2</sup> studied 520 hemodialysis individuals in Boston and verified by means of Elisa (enzyme-linked immunosorbent assay) and Western blot analysis that only four (0.8%) were seropositive for HIV. These workers suggested that HIV infection is not transmitted in dialysis centers and that the infection in those patients is related with frequent blood transfusions.

As of February, 1987 there were 41 notified cases of Acquired Immunodeficiency Syndrome (AIDS) in Minas Gerais State, Brazil. From these, 34 were homo or bisexual men, 2 were hemophiliacs, 2 had received multiple blood transfusions, 1 was an intravenous drug addict and 2 had no identified risk factors<sup>1</sup>. Until this period, examinations in blood donors for detecting antibody against HIV were not obligatory in Brazil.

We studied in March, 1987 237 patients (99.2% of the total) from three private dialysis centers in Belo Horizonte, capital of the Minas Gerais State. Information about age, sex, number of blood transfusions and number of hemodialysis were obtained from the three centers. The sera of all patients were tested by Elisa (Salk Dupont Laboratories). When the serum was positive and/or borderline in at least two out of three of these examinations, they were retested by means of Western blot analysis (Biotech Dupont Laboratories). The serum tested by Western blot was considered positive if they reacted with proteins p24, p31 and gp41 or gp160. The examinations were carried out according to the manufacturers' instructions.

Our findings show that (Table 1): a) there were statistically significant differences among the patients from the three centers in relation to age, sex, number of blood transfusions and number of hemodialysis; b)

Table 1 - Sex, age, number of blood transfusions, number of hemodialyses, and human immunodeficiency virus reactivity in three hemodialysis centers in Belo Horizonte, Brazil.

Variables	Center A (n = 129)	Center B (n = 70)	Center C (n = 38)	Total (n = 237)	p value***
1) Mean years of age ± SD (range)	39.1±15.0 (9-75)	43.1±14.8 (20-75)	40.6±13.0 (14-79)	40.5±14.7 (9-79)	p < 0.05
2) Sex					
Males	61(47.3%)	45( 64.3%)	26( 68.4%)	132(55.7%)	
Females	68 ( 52.7%)	25( 35.7%)	12( 31.6%)	105(44.3%)	p < 0.05
3) N° of blood transfusions during all life*					
0	13(10.1%)	16( 22.9%)	3( 7.9%)	32(13.5%)	
1-4	53(41.1%)	33( 41.1%)	18( 47.4%)	104(43.9%)	
≥ 5	63(48.9%)	21( 30.0%)	17( 44.7%)	101(42.6%)	p < 0.05
(n) Mean ± SD	(116)5.2±3.9	(54)5.4±5.6	(35)7.3±8.2	(205)5.6±5.3	-
4) N° of hemodialysis during all life					
1-99	62(48.1%)	33( 47.1%)	7( 18.4%)	102(43.0%)	
100-499	53(41.0%)	32( 45.7%)	18( 47.4%)	103(43.5%)	
≥ 500	14(10.9%)	5( 7.1%)	13( 34.2%)	32(13.5%)	p < 0.05
Mean ± SD	199.7±215.5	177.0±228.3	366.8±329.2	219.8±248.3	-
5) HIV reactivity (ELISA)					
Negative	128(99.2%)	70(100.0%)	38(100.0%)	236(99.6%)	
Positive**	1( 0.8%)	0( 0.0%)	0( 0.0%)	1( 0.4%)	-

n = n° of patients

\*: 176 (74.0%) received at least one blood transfusion in the previous year (1986)

\*\* : positive and/or borderline in at least two examinations

\*\*\*: 1) F(2,234)=2.25; 2) X<sup>2</sup>(3df)=8.21; 3) X<sup>2</sup>(4df)=10.73; 4) X<sup>2</sup>(4df)= 21.85

87% of the patients had received at least one blood transfusion during their lives and 74% had received at least one transfusion during the previous year; c) the mean number of hemodialysis varied from 117 to 119 in the investigated centers; d) only one individual had antibody against HIV by Elisa examination, but this serum was negative when retested by means of Western blot analysis. These results demonstrate that the problem of HIV infection in the studied patients does not exist at the present stage of the AIDS epidemic in Belo Horizonte.

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