



COMPARATIVE ANALYSIS OF ELECTROPHORESIS' PROFILE OF SERA PROTEINS OF PEOPLE INFECTED BY HIV AND PEOPLE NOT INFECTED BY HIV IN KINSHASA

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OBJECTIVE:

The aim of the study was to establish a comparison between the electrophoresis' profile of sera proteins of people infected by HIV, naïve of treatment, and people not infected by HIV. They could be used as an alternative mean of HIV patients' follow-up in limited resources areas.

METHODS:

This is a transversal study that was conducted at the Ambulatory Center of Treatment ACS/AMO-CONGO Kasa-Vubu in Kinshasa with people who came for a voluntary HIV screening test. Eighty one people, naïve of HAART, participated voluntarily in the study. HIV screening was systematically done according to WHO recommendations. Blood sample was obtained in a dry tube for the electrophoresis' profile of sera proteins, and in a tube with EDTA for numeration of CD4 for HIV positive patients. The statistical test of Chi-squared was used for qualitative data, and the test of Student for quantitative data.

RESULTS:

Out of 81 volunteers, 30 were confirmed HIV positive and 51 negative. The results obtained demonstrate that HIV infection is associated with a hyperprotidemia, a hypoalbuminemia also a hypergammaglobulinemia and a hyperglobulinemia according to CD4 level. No significant modification was observed for the alpha and beta-globulins.

	Valeurs pour sujets VIH+			Valeurs pour sujets VIH-			*p
	Moyenne	Maximale	Minimale	Moyenne	Maximale	Minimale	
Protéines Totales	84,10	122,90	28,00	74,74	89,00	47,30	‡ 0,000
Albumine	45,62	57,11	29,98	58,42	69,42	46,97	† 0,000
Globuline	54,38	79,03	42,88	41,58	53,03	30,57	† 0,000
α-1-Glob.	1,940	7,780	0,000	1,770	10,430	0,640	† 9,348
α-2-Glob.	9,074	15,050	2,190	9,380	12,620	5,050	† 0,921
β-1-Glob.	5,768	11,590	1,150	7,917	11,190	4,600	† 0,481
β-2-Glob.	3,132	8,830	0,700	3,096	5,910	1,300	† 1,738
γ-Glob.	34,470	65,430	17,610	19,420	25,570	10,360	† 0,000
Rap. Alb/Glob	0,869	1,330	0,430	1,438	2,270	0,890	† 3,333

Table: Valeurs des protéines sériques dans les populations/ Proteins values in the populations

Figure 2: Comparaison des sujets VIH+ selon le taux de CD4/Comparison among HIV+ patients according to CD4

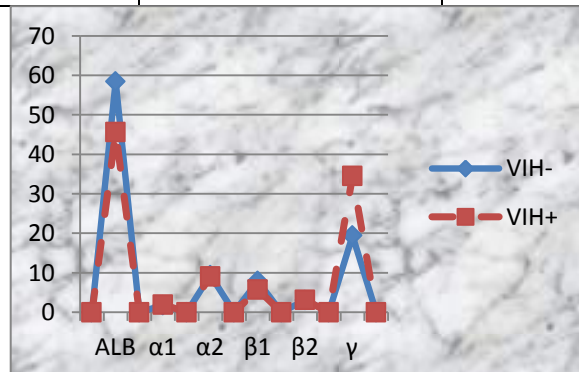
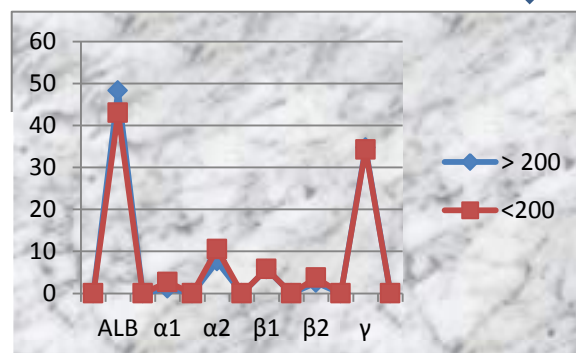


Figure 1: Comparaison des moyennes des protéines dans la population VIH+ et VIH-/ Comparison among HIV+ and HIV- sera proteins



CONCLUSION:

The HIV infection induces some significant modifications of different fractions of sera proteins according to immune status. These modifications can be used for the biological follow up of patients infected by HIV in limited resources areas.