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Selenium levels and total antioxidant capacity in serum of AIDS adult patients. Preliminary study

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Previous results have shown in AIDS children diminished levels of sera selenium⁽¹⁾. Due to the antioxidant effect of this mineral, its deficiency could deteriorate the number of immune cells and/or their function. The aim of this preliminary study is to evaluate selenium status and total antioxidant capacity in a group of AIDS adults. Twenty two patients AIDS between 25 and 50 years old were included. Samples of whole blood were collected from fasting patients. Sera selenium (Se) was determined in haemolysis-free plasma by flame atomic absorption spectrometry; a calibration curve was performed, using commercial standards. Reference values were taken from international bibliography (60–160 µg/l)^(2–4). Total antioxidant capacity (TAC) was determined as described by Miller *et al.* and Re *et al.*^(5,6) and was compared with those obtained on a healthy adult group (mean = 1.92, SD = 0.04). The Ethics Committee of the University of Buenos Aires approved the study. All participants gave informed consent before recruitment. Statistical analyses were performed with the Student's *t* test.

The results expressed as means (SD) were: Se (µg/l) 34.7 (16.7) and TAC (mM – Trolox equivalents⁽⁶⁾) 1.69 (0.18)^(5,6). When the results were compared with reference values, diminution in their levels were observed ($P < 0.01$). It is important to point out that 81.8% of the patients presented selenium concentration less than 60 µg/l. The same behaviour was observed in other AIDS populations^(1,7). A controlled Se supplementation would be necessary to protect immune cells.

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