

## ASSESSMENT OF SELENIUM STATUS OF HEALTHY ADULTS IN SOUTH WESTERN NIGERIA

O.O. BABALOLA\*<sup>1</sup>, J.I. ANETOR\*\* AND F.A. ADENIYI\*\*

---

\*Department of Environmental Management and Toxicology,  
University of Agriculture, Abeokuta, Nigeria.

\*\*Department of Chemical Pathology, College of Medicine,  
University of Ibadan, Ibadan, Nigeria

<sup>1</sup>Corresponding Author

---

### ABSTRACT

Blood selenium (BSe) and plasma glutathione peroxidase (pIGSH-Px) activity were measured as biochemical markers of selenium status of 88 apparently healthy subjects (40 males; 48 females). The subjects were recruited from Abeokuta and Ibadan (South-Western Nigeria). The mean age of the healthy subjects was  $37.8 \pm 8.6$  (range 18–52) years. Their weight and height were measured and their body mass indices (BMI) computed. BSe was determined by atomic absorption spectrophotometry (AAS) while pIGSH-Px activity was measured by spectrophotometric method. The mean BSe concentration in healthy adults was found to be  $0.188 \pm 0.026$  mg/L while the mean pIGSH-Px activity was  $0.127 \pm 0.022$  U/mL. These values were compared with some of those that were reported from other parts of the world. It is evident from these results that there is no evidence of selenium deficiency in this environment since the range of Bse values found in healthy subjects is comparable to those found in similar populations in many areas of the world where selenium concentration in the soil and in human diet is considered to be adequate.

**Keywords:** Blood Selenium, Glutathion peroxidase, Selenium status, Biochemical markers.