Abstract

Background: This study analyzed the phase angle (PA) values of hospitalized HIV-infected patients by comparing them with those reported for a healthy population and investigated their relation with nutritional parameters. Methods: This is a cross-sectional study including 101 hospitalized patients diagnosed with HIV infection and evaluated by bioimpedance, anthropometry and biochemical tests. The phase angle values, weight loss percentage (%WL), body mass index (BMI), arm muscle circumference (AMC), tricipital skinfold (TSF), body fat percentage (%BF) and albumin were considered. In order to compare with values for the healthy population, the PA zscore of the patients under study was calculated. Spearman’s correlation and the multiple linear regression model were used to identify nutritional parameters associated with the PA zscore. Results: The patients showed a mean PA zscore of -2.6 ± 1.5, and only 6.6% of them with a positive value. The PA zscore values correlated with %WL (r = -0.51; p < 0.0001), albumin (r = 0.49; p < 0.0001), BMI (r = 0.58; p < 0.0001), AMC (r = 0.41; p < 0.0001), TSF (r = 0.47; p < 0.001) and %BF (r = 0.48, p < 0.0001). In multiple analysis %WL (p = 0.008), albumin (p = 0.01), AMC (p < 0.0001) and %BF (p = 0.0003) remained associated with the score. Conclusions: Low PA zscore values were observed, suggesting a worse clinical prognosis for the patients. The inclusion of the PA zscore as a nutritional indicator during care provision to HIV-infected patients is recommended.

Keywords

Electrical bioimpedance. HIV. Nutritional status. Phase angle.