Abstract

Background & aims: To assess the agreement and the association between phase angle (PA) and parameters of nutritional status in surgical patients. Methods: This was a cross-sectional study that involved 98 patients admitted for elective gastrointestinal or hernia repair surgery. The risk and nutritional status were evaluated through Nutritional Risk Screening 2002 (NRS 2002), Subjective Global Assessment (SGA), Body Mass Index (BMI) and Total Lymphocytes Count (TLC). These assessments were compared with the mean standardized PA (SPA), obtained by Bioelectrical Impedance Analysis (BIA). Statistical analysis included kappa coefficient, Student’s t-test, Mann-Whitney test, and the construction of a ROC Curve. Results: The highest kappa agreement was obtained between the SPA and the SGA (0.27; CI95% 0.06-0.48). Malnourished patients diagnosed by NRS 2002, SGA and TLC had a significantly lower mean SPA as compared to those who were well-nourished. A cut-off point of 0.8 for SPA showed 82.6% (CI95% 65.0-100.0%) sensitivity and 40.6% (CI95% 23.0-58.2%) specificity. Conclusion: The SPA presented weak agreement with the methods of nutritional assessment, as well as low specificity, and could not be recommended as a marker of nutritional status, despite the fact that the lowest values for SPA were found in malnourished patients.

Keywords

Nutritional status assessment, Bioelectrical impedance analysis, Phase angle, Surgical patients.