

NUTRITION & HEALTH

April 12-14, 2018 | Amsterdam, Netherlands

Assessment of protein nutritional status in human immunodeficiency virus infected outpatients

Karl Emerole

RUDN University, Russia

Statement of the Problem: Protein-energy deficiency is observed in patients with Human Immunodeficiency Virus (HIV) infection more often than in the HIV negative individuals. This is accompanied by decrease in the function of T-lymphocytes and complement activation disorders which could lead to further HIV complications. Decrease in lean body mass (LBM) are common problems in HIV infected individuals indicating protein loss. Studies have also evaluated the hijacking of the ubiquitination pathway by HIV proteins which in turn affects protein metabolism. After the World Health Organisation's first technical consultation on Nutrient Requirements for People Living with HIV/AIDS in Geneva 2003, it was suggested that more data were needed to support an increase in the recommended daily allowance (RDA) of protein intake. To gain a better understanding on this issue we implemented a comprehensive approach to determine if the patients met their daily protein requirements.

Material & Methods: 45 outpatients diagnosed with HIV and 32 healthy volunteers aged between 24 and 40 were enrolled in the study. Protein consumptions intake by 24-hour dietary recall was determined. LBM and muscle mass were measured using bioelectrical impedance analysis. Selected biochemical parameters were evaluated (total protein and serum albumin). The protein oxidation rate was determined using indirect calorimetry and urine urea nitrogen test to assess protein metabolism.

Conclusion: The HIV group met RDA for protein dietary intake. Lean body and muscle mass were normal. However a protein metabolic state was observed. Individual adjustment of RDA for protein intake in the HIV group is necessary to compensate the degradation of proteins. Further investigation should be extended to HIV patients with opportunistic diseases during metabolic stress as well as in pediatric HIV infection.

kamerole@yahoo.com