

ABSTRACT

The Impact of Nutrition Intervention on HIV-infected Patients: The Jamaican Study

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This dissertation assesses the impact of Medical Nutritional Therapy (MNT), with emphasis on anthropometric and immune status markers, on disease progression in Human Immunodeficiency Virus (HIV) infected, antiretroviral therapy (ART) naïve individuals. The study was conducted as a double-blind, randomised, controlled efficacy clinical trial but was registered as a parallel assignment, open label, randomised, controlled, efficacy clinical trial. A total of 121 HIV-positive, asymptomatic, ART and Nutrition Clinic naïve participants met the inclusion criteria and were enrolled. Participants were randomised to one of two treatment arms: a medical nutritional supplement plus a multivitamin-mineral supplement or a multivitamin-mineral supplement only, both arms received nutrition counselling. There were no statistically significant differences between the two treatment groups for change in body mass index (BMI) ($p = 0.094$) or change in weight ($p = 0.111$) when the data were analysed using an intention to treat approach. After adjustment for covariates (age, multivitamin compliance, initial CD4 count, carbohydrate intake, fat intake, protein intake), there was a significant difference ($p = 0.039$) for BMI between groups (supplemented group BMI 0.5 kg/m² greater than the non-supplemented group); the difference between the groups for weight (supplemented group weight 1.3 kg greater than the non-supplemented group) approached significance at the 5% level ($p = 0.051$).

After adjustment for covariates, this intervention was shown to be of significant benefit at the 5% level; the adjusted difference between groups was a change in BMI of 0.5 kg/m² and a change in weight of 1.3 kg in the supplemented group compared to the non-supplemented group. If these results can be replicated, MNT might become a part of the management of persons living with HIV/AIDS who have CD4 counts in the range of 300 to 550 cells/ μ l.

Keywords: Sharon Maxine Dawson; Human Immunodeficiency Virus (HIV); Jamaica; Body Mass Index (BMI); Medical Nutritional Therapy (MNT)