

Nutritional Supplementation in HIV-Infected Individuals Can Be Beneficial in Certain Patient Groups

TO THE EDITORS—In the 1 July issue of *Clinical Infectious Diseases*, Swaminathan et al [1] describe the results of a prospective study on nutritional supplementation in human immunodeficiency virus (HIV)-infected individuals in South India over a 6-month period. It is unclear to us how the results of this study need to be interpreted. Indeed, the authors themselves state that “in summary, an energy-dense oral macronutrient supplement did not have additional benefits on nutritional parameters or immune function among antiretroviral treatment (ART)-naive HIV-infected individuals in South India, compared with high-quality standard of care” [1, p 56]. However, elsewhere in the text they state that “we showed significant improvements in various nutritional parameters and documented a slower decrease in CD4 cell counts among patients who were provided supplements” [1, p 56]. Two hundred seventy-five (43%) of 636 patients screened and enrolled did not initiate use of the supplement, became ineligible, or discontinued use of the supplement within the first few weeks because of a variety of reasons (noncompleters). The noncompleters were older and had lower body mass index, CD4 cell counts, serum albumin levels, and blood cholesterol levels, indicating more advanced disease and possibly a more undernourished state. Therefore, it could be that a possible positive effect of macronutrition was not observed by excluding the group which would have benefited most from macronutrition.

It is our experience that macronutritional supplement programs are certainly useful if they target food-insecure patients with advanced HIV disease. Many times we have heard undernourished patients with HIV infection saying “you provide us with drugs, but we do not have anything to eat; how can we survive?” Not only is it difficult to take certain drugs on an empty stomach, patients may become discouraged and stop all treatment. Access to food supplements will motivate them to remain in care and to adhere to their ART

regimen. In the Zambian study, mentioned by Swaminathan and colleagues, food supplementation was associated with better adherence to therapy [2]. Seventy percent of patients who received food achieved a medication possession rate of $\geq 95\%$, compared with 48% by controls who did not receive food. In a recent study in Kenya comparing 1864 food-insecure adults receiving ART who accepted food assistance with 4295 controls who were not considered to be food insecure and therefore were not receiving food supplements but were matched by clinic, sex, age, CD4, weight, and ART initiation date, clinic adherence was higher for those receiving food assistance [3]. Moreover, in contrast with the Zambian study, those receiving food assistance had a greater increase in body weight (6.1 vs 5.0 kg; $P = .014$) and CD4 count (146 vs 134 cells/ μL ; $P = .175$) and were less likely to die than control persons (mortality rate, 13 vs 67 deaths per 1000 persons per year; hazard ratio, 0.13; 95% confidence interval, 0.08–0.23).

In conclusion, there is increasing evidence that food supplements are useful for food-insecure patients receiving ART. A priority research question to address is how to organize the distribution of food supplements in the most cost-efficient and sustainable way.

Acknowledgments

Potential conflicts of interest. All authors: no conflicts.

Financial support. The United Nations World Food Programme provided the food supplements for the Kenyan study.

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Clinical Infectious Diseases 2010;51(10):1225–1226

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DOI: 10.1086/656923