Nutritional Intake of Omega-3 Polyunsaturated Fatty Acid, Selenium, Vitamin C and Vitamin E and Disease Activity in Patients with SLE

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Introduction
In addition to conventional pharmacologic therapies for Systemic Lupus Erythematosus (SLE), many patients implement a complementary and alternative medicine (CAM) approach to their treatment regimen. There is growing evidence that several macro- and micronutrients, in the patient’s diet, as part of CAM therapy, may impact SLE activity \(^1\); however there is a paucity of data on the baseline dietary intake by patients with SLE.

Materials and Methods
Patients completed dietary journals noting their food and beverage intake for a minimum of five days over a two week time frame. The data was analyzed using Nutrilog Analysis Software\textregistered generating a breakdown of macro- and micronutrients. SLE disease activity via Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) scoring were obtained, separating them into 2 groups, those with SLEDAI equal or greater than 4 and those with less than 4 (scores higher than 4 reflect active disease).

Results
From our patient sample, 73\% consume less omega 3 polyunsaturated fatty acids, 66\% less vitamin C and 87\% less vitamin E than 80\% of patients meet the recommended daily selenium intake (Table 1) according to dietary references by the Food and Nutrition Board of the Institute of Medicine.

Patients with SLEDAI scores lower than 4 have in average more vitamin C intake (241.89 mg vs 55.40 mg). Also, a higher percentage of patients with SLEDAI scores lower than 4 meet daily recommendations for vitamin C (50\% vs 22\%). (Table 2)

Conclusions
In this small descriptive analysis, our results demonstrate a higher percentage of adequate vitamin C intake with lower SLEDAI scores. Further studies are recommended to identify nutritional deficiencies in patients with SLE and evaluate any possibly association with clinical disease activity.
Abstract 27

Table 1: Macro and micronutrient intake, recommended daily intake and percentage of patients that meet or are below recommendations.

Table 2: Mean anti-inflammatory daily intake and percentage of patients that meet recommended intake divided by SLEDAI score

Reference