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A comprehensive approach to evaluate nutritional status in Crohn's patients in the era of biologic therapy: a case-control study

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Abstract

OBJECTIVES:

Evaluate the nutritional status of patients with inactive or mildly active Crohn's disease (CD), and identify possible causes for potential deficiencies.

METHODS:

A total of 78 CD patients and 80 healthy controls were evaluated in respect of nutritional status, dietary intake, and life styles factors.

RESULTS:

These 73/78 CD patients were on immunomodulating therapies. Mean body mass index (BMI) was lower in patients as compared to controls (P = 0.006) but 32% of CD patients and 33.8% of controls had a BMI > 25, whereas 8% and 23.8% in each group, respectively, were obese (BMI > 30Kg/m^2). Fat free mass was significantly decreased in both genders (P < 0.05) whereas fat mass was decreased only in males (P = 0.01). Energy intake was significantly lower in CD patients (P < 0.0001) and we observed significantly lower adjusted mean daily intakes of carbohydrates, monounsaturated fat, fiber, calcium, and vitamins C, D, E, and K (P < 0.05). 29% of patients had excluded

grains from their usual diet, 28% milk, 18% vegetables, and 11% fruits. Milk exclusion resulted in a significantly lower consumption of calcium and vitamin K ($P < 0.001$) and the exclusion of vegetables was associated to a lower consumption of vitamins C and E ($P < 0.05$). Physical activity was significantly lower in CD patients ($P = 0.01$) and this lack of physical activity was inversely correlated with increased fat mass percentage ($r = -0.315$, $P = 0.001$).

CONCLUSIONS:

Results showed that the most prevalent form of malnutrition in CD patients was an excess of body weight, which was concomitant with an inadequate dietary intake, namely micronutrients, clearly related to dietary exclusion of certain foods.