Abstract

Aim: the aim of our study was to investigate the effect on strength and quality of life of an enhanced specific enteral formula with HMBD and vitamin D in elderly patients. Methods: we conducted an open-label study. General assessment of nutritional status included measurements of body weight, height, body mass index (kg/m²) and bioimpedance. Handgrip strength was measured by dynamometry. QOL (quality of life) was assessed using the well validated SF 36 questionnaire. Albumin, prealbumin, transferrin and 25-OH vitamin D were measured. All these parameters were recorded at basal time and after 12 weeks of nutritional intervention. Results: patients were divided in two groups by the median percentage of weight improvement (3.4%); group 1 (percentage of weight improvement < 3.4%) and group 2 (percentage of weight improvement > 3.4%). In group 1, patients showed an improvement in prealbumin and vitamin D levels. In group 2, patients showed an improvement of BMI, weight, fat mass, fat free mass, prealbumin, vitamin D levels, role physical domain of SF 36, general health domain of SF 36 and handgrip strength. The volumetric consumption rates of the formula were higher in group 2 than group 1 (group 1: 1.25 + 0.78 units/day [1.81 +/-0.9 g per day of HMBD] vs. group 2: 1.86 + 0.82 units/day (2.79 +/-1.1 g per day of HMBD)). Conclusions: elderly patients with a previous weight loss and with a high consumption of a HMBD and vit D enhanced formula had a significant improvement in anthropometric, biochemical parameters, handgrip strength and quality of life.

Keywords

Elderly, Handgrip strength, HMBD, Vitamin D, Quality of life.