SHORT-TERM EFFECT OF WHEY PROTEIN SUPPLEMENTATION ON THE NUTRITIONAL STATUS AND QUALITY OF LIFE OF PATIENTS WAITING FOR LIVER TRANSPLANTATION

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Abstract

Background & aims: Chronic liver disease is associated with malnutrition that negatively impacts a patient's health-related quality of life (HRQoL). We evaluated the short-term effect of whey protein supplementation on the HRQoL and nutritional and functional status of patients waiting for liver transplantation (LT). Methods: This was a double-blind randomized clinical trial with patients waiting for LT who were randomized into two groups: WP (whey protein supplementation) and the control (casein supplementation). Both groups received 40g (20g in the morning and 20 g in the evening) for 15 days. Nutritional and functional status were evaluated. Energy balance (EB) was calculated as the difference between energy intake (24-hour recall) and total energy expenditure. The chronic liver disease questionnaire (CLDQ) was used to assess HRQoL. All measurements were performed before and after the intervention. Results: Fifty-six patients were evaluated. Malnutrition was present in 56.9% of patients, and it was directly associated with a poor HRQoL ($p<0.05$). No improvement on the nutritional and functional status was observed, in either group after protein supplementation. HRQoL improved after WP and casein supplementation, with no differences between groups ($p>0.05$). Patients who met protein requirements and had a positive EB demonstrated a higher HRQoL score (4.9) ($p<0.05$), without between-group differences. Conclusion: Malnutrition substantially reduces HRQoL. Short-term WP or casein supplementation improved the HRQoL.

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