

Long-term oral nutrition supplementation improves outcomes in malnourished patients with chronic kidney disease on hemodialysis

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Study Objective: To compare the effects of a renal-specific oral nutrition supplement (RS-ONS) and a standard recommended nutrition regime on biochemical and nutrition markers in malnourished patients with CKD on hemodialysis

Methods

- **Study design:** Prospective, controlled, single-center trial
- **Study population:** Sixty-two malnourished patients with CKD were evaluated for anthropometric, clinical, biochemical, and inflammatory parameters. Patients were diagnosed as malnourished based on serum albumin concentration < 4 g/dL and/or a loss of $\geq 5\%$ dry weight over the past 3 months
- **Intervention:** The experimental group ($n = 32$) took 2-3 servings daily of a RS-ONS and the control group ($n = 30$) increased their dietary intake

Results

- Mean (SD) **serum albumin levels were significantly increased in the RS-ONS group** from 3.5 (0.3) g/dL at baseline to 3.7 (0.2) g/dL at 6 months ($P = .028$) compared to no change in the control group
- **Serum albumin levels were significantly higher in the RS-ONS group at 6 months** compared to the control group: 3.7 (0.2) vs 3.5 (0.3) g/dL, $P = .012$
- Over the 6- month study period, **fat-free mass, muscle mass, and bone mass remained stable in the RS-ONS group** but declined significantly in the control group ($P < .001$)
- The malnutrition and inflammation scores increased significantly at 6 months in the control group ($P = .006$), but remained stable in the **RS-ONS group**

Study Conclusion

Consuming 2-3 servings of RS-ONS daily at home was shown to improve serum albumin levels and maintain anthropometric parameters in malnourished patients with CKD on hemodialysis compared to increased dietary intake.

Sezer S, Bal Z, Tutal E, Uyar ME, Acar NO. *JPEN J Parenter Enteral Nutr.* 2014;38:960-965.