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

**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 ≥ 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.