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Geriatrics

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EFFECT OF ORAL NUTRITIONAL SUPPLEMENTATION (ONS) ON MUSCLE STRENGTH IN OLDER HIP FRACTURE PATIENTS AT NUTRITIONAL RISK – PRELIMINARY RESULTS FROM A RCT

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Rationale: Malnutrition and dehydration are common in older hip fracture patients and can reduce the effectiveness of rehabilitation. This study aimed to assess if an increased intake of energy and protein from ONS improves muscle strength during rehabilitation.

Methods: Hip fracture patients aged ≥ 65 years at nutritional risk were included. The ONS provided 613 kcal, 37 g of protein, and 3.66 mg of omega-3 daily. Muscle strength was measured using the 30-second chair-stand test. Other outcomes included hydration status (serum osmolality), CRP, appetite (SNAQ), quality of life (EQ-5D-5L), and energy and protein intake (24-hour recall). Mann-Whitney was used to test differences between groups at 12 weeks.

Results: 98 out of the planned 107 participants have been randomized, with 49 in the intervention group (IG) and 49 in the control group (CG). At baseline, the IG was 84 years (79-86), and the CG was 78 years (77-83). The percentage of women was 30 (61%) in IG and 25 (51%) in CG. The dropout rate was 6% in IG and 5% in CG. Preliminary data for 68 completed participants have been reported for those with $\geq 75\%$ compliance (53%). Muscle strength was higher in IG 11 (7-13) vs. 5 (0-10) ($p=0.0319$). IG had higher energy and protein intake 2102 kcal (1714-2386) and 87.7 g (76.2-111.0) vs. 1658 kcal (1547-1918) and 64.3 g (55.1-74.9) in CG ($p=0.0349$, $p=0.0390$). The omega-3 index was higher in IG 12.0 (9.8-14.4) vs. 6.4 (5.9-7.1) in CG ($p<0.0001$). Serum osmolality was lower in IG 291 mmol/L (285-297) vs. CG 296 mmol/L (293-299) ($p=0.0291$). There were no differences in CRP, appetite, or quality of life.

Conclusion: Preliminary results showed that an increased energy and protein intake resulted in a clinically relevant improvement in muscle strength and improved hydration status in older hip fracture patients during rehabilitation.

Disclosure of Interest: None Declared