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## Health and Biomedical - Poster Display

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# The Effect of Protein Supplementation on Body Muscle Mass and Fat Mass in Qataris PostBariatric Surgery: A Randomized Controlled Trial RCT

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**Background and objectives:** Obesity is a chronic medical condition characterized by an accumulation of excess fat in the body that may lead to negative health consequences. Bariatric surgery has been shown to be the most effective type of interventions to achieve and sustain significant weight loss in morbidly obese people. The objective of this study was to examine the effectiveness of protein supplementation in reducing the risk of developing protein malnutrition and low muscle mass, in post-bariatric patients in Qatar. **Methodology:** This study is a double-blinded randomized control trial. Recruitment of participants began in early 2017 following the ethical approval of the trial (HMC IRB approval no. 16433/16). The intervention group received protein supplement that contain 20 g of protein while the placebo group received zero protein supplement. All participants were followed up for 1 month post-surgery. Randomization was done on a weekly basis within blocks of 8 or 10 patients. Independent Sample-T Test and Paired Sample-T Test were performed to assess the effect of the intervention. **Results:** The mean weight loss in the control group was 9.6 kg, while the intervention group mean weight loss was 10.7 kg ( $p=0.03$ ). Change in muscle mass percentage was +0.50% in the placebo group, and +2.3% in the intervention group ( $P = 0.149$ ). Fat percentage change in the placebo group was -1.6% and -2.6% in the intervention group ( $P = 0.153$ ). The percentage change in Albumin in the placebo group was 2.76% and 9.71% in the intervention group ( $P = 0.031$ ). **Conclusion:** Our study has confirmed findings from multiple studies that protein supplementation in post-bariatric surgery patients is a successful intervention for healthy and

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balanced weight loss. This is yet another endorsement that surgery alone cannot put an end to obesity and must be combined with well-structured nutritional education so patients do not go back to their old habits and put the weight back on.