procedure by bioimpedance using the SECA mBCA525 body analyzer. At the same time, biochemical metabolic markers were determined (fasting glucose, HOMA, HbA1c, CT, HDL, LDL, and triglycerides). The results were reported using descriptive statistics. A Pearson or Spearman correlation was carried out according to the distribution of the variables. P <0.05 was taken as significant. **Results:** Eleven patients with a mean age of 49 ± 7 years were included, 73% of them were women. Their average initial BMI was 42 ± 4 kg/m2. VAT prior to surgery had a mean of 10.6 ± 2.5L for men and 6.4 ± 2.4L for women. Eighty-two percent of the patients fulfilled harmonized criteria for metabolic syndrome. There was a statistically significant decrease in VAT at 3 and 6 months after surgery in both men and women (Baseline 7.5 ± 3L, 3 months 3.8 ± 2.8 L (p <0.001), 6 months 2.5 ± 2 L (p = 0.001). An average decrease in visceral adipose tissue of 57 ± 24% in women and 34 ± 18% in men (p = 0.18) was found 3 months after surgery and 70 ± 22% in women and 60 ± 21% in men (p = 0.53) 6 months after surgery. Laparoscopic one-anastomosis gastric bypass (OAGB) was the type of surgery with the highest percentage of VAT loss at 3 and 6 months, however, this was not statistically significant when compared with Y-Roux Gastric bypass (YRGB). A statistically significant decrease in HbA1c, HOMA, total cholesterol, LDL, and triglycerides levels were found at 3 and 6 months after surgery. However, when correlating the proportion of VAT lost with the metabolic variables, only a significant correlation was found with the HbA1c levels. The higher the proportion of VAT lost, the lower the HbA1c levels (R2 -0.72 p = 0.01). **Conclusions:** Bariatric surgery produces a statistically significant reduction in visceral adipose tissue from 3 months after surgery. In this study, an inversely proportional correlation was found between the proportion of VAT lost and HbA1c levels.

Adipose Tissue, Appetite, and Obesity
INTEGRATED PHYSIOLOGY OF OBESITY AND METABOLIC DISEASE

Clinically-Relevant Weight Loss is Achieved Independently of Early Weight Loss Response to Once-Weekly Subcutaneous Semaglutide 2.4 MG (STEP 4)

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Background: Semaglutide, a glucagon-like peptide-1 analogue, is being investigated in people with overweight or obesity. A post-hoc analysis of the STEP 4 trial was conducted to identify whether early weight loss is predictive of later weight loss with maintenance once-weekly subcutaneous (s.c.) semaglutide 2.4 mg.
Methods: STEP 4 was a randomized, double-blind, phase 3 withdrawal trial (NCT03548987). Adults aged ≥18 years with either body mass index (BMI) ≥27 kg/m^2 with ≥1 weight-related comorbidity or BMI ≥30 kg/m^2, without type 2 diabetes, underwent a 20-week run-in period. Participants reaching the maintenance dose of once-weekly s.c. semaglutide 2.4 mg at week 20 (regardless of weight loss achieved) were randomized 2:1 to semaglutide 2.4 mg or placebo, as adjunct to lifestyle intervention, for an additional 48 weeks. Percent change in body weight from week 0 to 68 was estimated using a mixed model for repeated measurements analysis with treatment, week 20 responder status, and the interaction between treatment and week 20 responder status as factors, and baseline body weight as a covariate, all nested within visit (based on the trial product estimand [treatment effect assuming treatment adherence and without use of rescue intervention] for the on-treatment period). Participants were considered responders if they achieved ≥5% weight loss at week 20. Whether the week 20 response to semaglutide predicted the achievement of clinically-relevant weight loss (≥5%) by week 68 was also assessed.
Results: In STEP 4, 902 participants initiated semaglutide at week 0, of whom 803 were randomized at week 20 (semaglutide: n=535, placebo: n=268; characteristics at week 0 for all randomized participants: mean age 46 years, body weight 107.2 kg, BMI 38.4 kg/m^2; 79.0% female; 83.7% white). For the 88.0% of participants randomized to semaglutide and who were responders at week 20, mean body weight change from week 0 to 68 was -19.7%. For non-responders at week 20, mean body weight change was -6.4% with continued semaglutide vs -0.3% with switch to placebo. Of all participants randomized to semaglutide, 86.2% achieved a clinically-relevant weight loss (≥5%) at week 68. Being a responder at week 20 was highly predictive of achieving this outcome (positive predictive value: 96.4%), whereas being a non-responder at week 20 had limited predictive value (negative predictive value: 42.9%).
Conclusion: In the STEP 4 trial, the vast majority of participants who were randomized to the maintenance dose of once-weekly s.c. semaglutide 2.4 mg at week 20 had lost ≥5% body weight by week 68, with most achieving this by week 20. Overall weight loss with semaglutide was greater among early responders, but non-responders also achieved a clinically-relevant weight loss by week 68 if semaglutide treatment was continued.

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Developmental Changes in Food Perception and Preference

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