Cognitive factors of restraint and disinhibition are disordered in obesity. The three factor eating questionnaire (TFEQ) is designed to measure tendency to restrict food intake to control body weight (dietary restraint), and disinhibition of control of eating. TFEQ has been utilized as a psychometric instrument for the study of eating behaviours.

We conducted a prospective parallel group study in 17 patients with a BMI of 45.9 ± 1.1 to examine changes in TFEQ scores, and plasma Leptin, acyl-ghrelin concentrations at 6 and 12 weeks following bariatric surgery.

There was a significant increase in cognitive restraint after bariatric surgery (p = 0.004), significant increase at 6 (p < 0.05) and 12 (p < 0.01) weeks. Disinhibition was significantly (p < 0.0001) decreased after bariatric surgery, significant decrease at 6 (p < 0.001) and 12 (p < 0.001) weeks. Cognitive restraint at 12 weeks after surgery did show a positive correlation (p = 0.081, r = 0.19) to excess weight loss. There was a negative correlation between excess weight loss and Disinhibition at 12 weeks (p = 0.037, r = 0.26). Plasma leptin did display negative correlation (p = 0.0001, r = 0.72) to cognitive restraint, and a positive correlation (p < 0.0001, r = 0.36) to disinhibition. Cognitive restraint does show positive correlation (p = 0.017, r = 0.64) with the decrease in meal stimulated acyl-ghrelin AUC at 12 weeks. The decrease in disinhibition does also show a negative correlation (p = 0.01, r = 0.34) with decrease in acyl-ghrelin AUC at 12 weeks. The correlations between leptin/acyl-ghrelin and cognitive restraint/ disinhibition are not able to answer the question of causality or consequence; however, endocrine changes may mediate some of the favourable feeding behaviour changes after surgery.

Evolution of body mass index of women undergoing bariatric surgery in the pre- and post-operative period – a retrospective study

Carvalho, D.P.1, Poinhos, R.1, Fernandes, A.2, Costa, J.1, Pereira, M.2, Correia, E.3, 1Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto, Porto 2Hospital de Braga 3Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto, Porto Centro Hospitalar de São João, E.P.E.

Introduction: In recent years, there has been an increased interest in surgical treatment of morbid obesity in concomitance with the epidemic of obesity. The bariatric surgery has proven to be an effective treatment that helps the adherence to the eating plan, and, consequently, the ponderal loss.

Methods: This study consisted of analyzing data from 191 obese women, who were followed in the Nutrition consultant in the Service of Endocrinology, in the Hospital of Braga, and submitted to the adjustable gastric banding (AGB) and to the gastric sleeve (GS). This information has been evaluated in clinical processes of participants in certain time points.

Results: In both methods, there was a gradual decrease of the BMI among the time of surgery and the 6th month after.

Patients submitted to adjustable gastric banding had best results of BMI between the moment of the surgery and 15 days after the surgery, while women submitted to gastric sleeve had worse results of BMI between the 3 and 6 months after the surgery. Over half of the patients submitted to the adjustable gastric banding had grade I or grade II obesity after 12 months and most submitted to the gastric sleeve had pre-obesity or grade I obesity.

Conclusion: Differences were found between the 2 types of surgical methods. The grade I obesity was the final classification more predominant, at the end of the 12 months after, but the bariatric surgery allowed a higher decrease of the BMI with better results to gastric sleeve.