

Exercises before and after Laparoscopic Sleeve Gastrectomy and Laparoscopic Roux-en-Y Gastric Bypass

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Introduction: Laparoscopic sleeve gastrectomy (LSG) and laparoscopic Roux-en-Y gastric bypass (LRYGB) are proven as effective long-term weight loss procedures. However, it remains still unclear whether bariatric surgery influences physical activity.

Aim: To assess exercises changes after laparoscopic sleeve gastrectomy and laparoscopic Roux-en-Y gastric bypass.

Materials and Methods: This prospective observational study was conducted from 2015 to 2016 at 2nd Department of General Surgery Jagiellonian University in Cracow, Poland. Inclusion criteria were: age 18-65 y.o., positive qualification to bariatric surgery and consent of participation into this trial. Physical activity was measured in metabolic equivalent of task per minute (MET-minutes) by two validated tools: Paffenbarger Physical Activity Questionnaire and WHO Global Physical Activity Questionnaire before the procedure and at 12-month follow-up.

Results: 54 patients met the inclusion criteria. 24 of them were males (44.44%). Mean age of participants was 43.6±12.2y.o. and mean BMI was 45.94±6.35kg/m². 44 patients (81.48%) have had at least one obesity-related comorbidity. Mostly performed procedure was LSG (n=37, 71.15%). Follow-up measurement was successful in 40 participants (74.07%). 12 months after surgery MET-minutes has changed from Me:299.75, Q1-Q3:225.78-358.38 to Me:4339.85, Q1-Q3:1590.6-7827.1, p<0.0001. Daily sitting or reclining time has reduced from 480 to 300 min. (p=0.0012). Exertion during normal activities, measured at VAS, has decreased from mean 5 (strong effort) to mean 2.5 (light effort) (p=0.00004). No correlation between changes in BMI and MET-minutes was observed (R=0.0634, p=0.7302).

Conclusions: This trial shows notable exercises level increase 12-months after bariatric surgery. Further investigations is needed to develop post-surgical guidelines and interventions.

Biography:

Beginning researcher from Faculty of Medicine, Jagiellonian University Medical College, Poland. Member of Students' Scientific Group at 2nd Department of General Surgery and Students' Scientific Group of Systematic Reviews.