

Subjective and objective physical activity patterns after Roux-en Y gastric bypass surgery compared with non-operated obese and non-obese control women

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INTRODUCTION

Previous studies on physical activity after bariatric surgery provided inconsistent results. The aim of our study was to comprehensively assess physical activity by subjective (questionnaires) and objective (accelerometry) measures in women who had undergone Roux-en Y gastric bypass (RYGB) surgery and to compare results with those of women displaying grade II or higher obesity and of non-obese control women.

METHODS

Our cross-sectional case-control study included 12 women in each group (RYGB, obese, non-obese). Wrist accelerometry was performed over 5 days. Two questionnaires were used to assess women's self-reported leisure- and work-time and sport-related physical activity.

RESULTS

Accelerometry indicated a lower physical activity in RYGB women than in non-obese women in particular during the weekend ($p=0.010$), while there was no difference between RYGB and obese women ($p=0.57$). Questionnaires revealed that RYGB women self-report a greater leisure- and work-time physical activity than obese women and also greater work-related physical activity than non-obese women (all $p\leq 0.032$). In contrast, sport-related activities were reduced in RYGB as compared with non-obese women ($p=0.011$), while there was no difference between RYGB and obese women ($p=0.51$). Comparison of the obese and non-obese group revealed less leisure-time and sport-related activities in the obese women (both $p\leq 0.002$).

DISCUSSION

Despite the preliminary character of our rather small study, data suggest a differential physical activity pattern in women who have previously undergone RYGB surgery that is characterized by rare sport activities, an increased subjective work-related physical activity and objectively reduced physical activity during the weekend as compared with non-obese control women.

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