The effect of Roux-en-y gastric bypass surgery on fitness parameters in women with morbid obesity

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Background & Aim: Obesity is widely considered as an important risk factor for impaired physical function and disability. Even mild to moderate weight loss has been shown to improve physical function. This study aimed to evaluate the effect of Roux-en-y gastric bypass (RYGB) surgery on some fitness parameters in women with morbid obesity.

Methods: 72 women with morbid obesity were included in this study. They were followed for six months after RYGB surgery. Some fitness parameters including Body composition (using bioelectrical impedance), muscular strength (leg press in lower limb and hand power grip in upper limb) and six minute walk test were evaluated before surgery and at intervals of 1, 3 and 6 months after surgery.

Results: BMI and body weight of all samples decreased constantly during six months follow up after surgery. Also, by the end of the study, the body fat percent decreased from 48.2(3) to 36.4(4) (p<0.05). The distance which patients paced in 6MWT increased 22% during six months follow up (p<0.0001). Although handgrip and leg press of the participants decreased following the gastric bypass surgery, the power grip/weight ratio and leg press/weight ratio improved significantly through the study (p<0.0001).

Conclusion: RYGB surgery may positively affect fitness parameters in morbid obese women. The endurance capacity, body composition and even muscle strength seem to be enhanced after gastric bypass surgery.

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