Outcomes of Laparoscopic Sleeve Gastrectomy among Obesity Patients in the Northern West Bank: A Retrospective Records Review

Students:

Ahmad Daqour

Supervisor:

Dr. Hamzeh Al Zabadi

Abstract:

Background:

Obesity has become a significant health problem in worldwide. Yet, conservative methods for weight loss are usually disappointing and therefore, bariatric surgeries such as Laparoscopic Sleeve Gastrectomy (LSG) should be considered. The aim of the present study was to evaluate the outcomes (mainly body mass index; BMI) of LSG among obesity patients in the Northern West Bank.

Methods:

Hospital medical records were reviewed after patients and administrative approvals for all patients who had undergone LSG since the year 2010 in the Arab specialized hospital in Nablus and the Palestinian Red Crescent society hospital in Tulkarem (N=36). In the second phase, patients have been invited again by phone calls to participate in the study. Those who agreed to participate (n=30; response rate=83.3%) were asked to self-report further required pre-operative and post-operative study measures. The primary study outcome was the change in BMI while the secondary outcomes included obesity associated co-morbidities' measures; hypertension (HTN) and diabetes mellitus (DM).

Results:

The mean age (standard deviation; SD) of the study participants (n=30; 20 women and 10 men) was 34.06 (10.71) years. After a mean (SD) follow-up time of nearly 7.16 (5.05) months, there was a strong statistically significant reduction in the mean of BMI post-operatively. The mean \pm SD of the pre-operative BMI was 47.23 \pm 7.89 kg/m² while 36.74 \pm 7.74 kg/m² post-operatively (95% CI for mean differences and p<0.001; 8.83-12.14 and 0.001). For the 6 clinically diagnosed hypertensive patients, there was a mean (SD) reduction of 27.50 (9.87) in systolic pressure (P <0.026) and 18.33 (13.66) of the diastolic blood pressure (P<0.042). For the 3 diabetics in our study, there were clinically and biologically clear mean (SD) reductions in both fasting blood sugar and glycated hemoglobin A1c of about 82.00 (22.70) mg/dl and 1.90 (0.78) %; respectively.In multivariate linear regression analysis, only practicing sports or exercise (no/yes) remained statistically significant with post-operative BMI (regression coefficient B= -7.33;P-value and 95% CI for B; 0.009 and -12.68- -1.98).

Conclusions:

LSG can significantly improve the BMI and could improve or resolve obesity associated co-morbidities like HTN and DM. We suggest that LSG might be recommended as the useful and single intervention therapy for co-morbid obesity patients who usually fail to reach beneficial results from a structured weight loss programs.