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One-Stage Conversion of Adjustable Gastric Band to One-Anastomosis Gastric Bypass Versus Sleeve Gastrectomy : A Single-Center Experience With a Short and Mid-term Follow-up

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Abstract : Background: Laparoscopic adjustable gastric band was one of the most applied and common bariatric procedures in the last 8 years. However; the failure rate was very high, reaching approximately 60% of the patients not achieving the desired weight loss. Most patients sought another revisional surgery. In which, we compared two of the most common weight loss surgeries performed nowadays: the laparoscopic sleeve gastrectomy and laparoscopic one- anastomosis gastric bypass. Objective: To compare the weight loss and postoperative outcomes among patients undergoing conversion laparoscopic one-anastomosis gastric bypass (cOAGB) and laparoscopic sleeve gastrectomy (cSG) after a failed laparoscopic adjustable gastric band (LAGB). Patients and Methods: A prospective cohort study was conducted from June 2020 to June 2022 at a single medical center, which included 77 patients undergoing single-stage conversion to (cOAGB) vs (cSG). Patients were reassessed for weight loss, comorbidities remission, and post-operative complications at 6, 12, and 18 months. Results: There were 77 patients with failed LAGB in our study. Group (I) was 43 patients who underwent cOAGB and Group (II) was 34 patients who underwent cSG. The mean age of the cOAGB group was 38.58. While in the cSG group, the mean age was 39.47 (p=0.389). Of the 77 patients, 10 (12.99%) were males and 67 (87.01%) were females. Regarding Body mass index (BMI), in the cOAGB group the mean BMI was 41.06 and in the cSG group the mean BMI was 40.5 (p=0.042). The two groups were compared postoperative in relation to EBWL%, BMI, and the co-morbidities remission within 18 months follow-up. The BMI was calculated post-operative at three visits. After 6 months of follow-up, the mean BMI in the cOAGB group was 34.34, and the cSG group was 35.47 (p=0.229). In 12-month follow-up, the mean BMI in the cOAGB group was 32.69 and the cSG group was 33.79 (p=0.2). Finally, the mean BMI after 18 months of follow-up in the cOAGB group was 30.02, and in the cSG group was 31.79 (p=0.001). Both groups had no statistically significant values at 6 and 12 months follow-up with p-values of 0.229, and 0.2 respectively. However, patients who underwent cOAGB after 18 months of follow-up achieved lower BMI than those who underwent cSG with a statistically significant p-value of 0.005. Regarding EBWL% there was a statistically significant difference between the two groups. After 6 months of follow-up, the mean EBWL% in the cOAGB group was 35.9% and the cSG group was 33.14%. In the 12-month follow-up, the EBWL % mean in the cOAGB group was 52.35 and the cSG group was 48.76 (p=0.045). Finally, the mean EBWL % after 18 months of follow-up in the cOAGB group was 62.06 ±8.68 and in the cSG group was 55.58 ±10.87 (p=0.005). Regarding comorbidities remission; Diabetes mellitus remission was found in 22 (88%) patients in the cOAGB group and 10 (71.4%) patients in the cSG group with (p= 0.225). Hypertension remission was found in 20 (80%) patients in the cOAGB group and 14 (82.4%) patients in the cSG group with (p=1). In addition, dyslipidemia remission was found in 27(87%) patients in cOAGB group and 17(70%) patients in the cSG group with (p=0.18). Finally, GERD remission was found in about 15 (88.2%) patients in the cOAGB group and 6 (60%) patients in the cSG group with (p=0.47). There are no statistically significant differences between the two groups in the post-operative data outcomes. Conclusion: This study suggests that the conversion of LAGB to either cOAGB or cSG could be feasibly performed in a single-stage operation. cOAGB had a significant difference as regards the weight loss results than cSG among the mid-term follow-up. However, there is no significant difference in the postoperative complications and the resolution of the co-morbidities. Therefore, cOAGB could provide a reliable alternative but needs to be substantiated in future long-term studies.

Keywords : laparoscopic, gastric banding, one-anastomosis gastric bypass, Sleeve gastrectomy, revisional surgery, weight loss
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