Duodenal switch for the management of failed sleeve gastrectomy: a matched controlled trial.
François-Charles Malo, Simon Biron, Léonie Bouvet-Bouchard, Frédéric-Simon Hould, François Julien, Stéfane Lebel, Odette Lescelleur, Simon Marceau, Laurent Biertho

Department of Bariatric Surgery, Quebec Heart and Lung Institute, Quebec city, Canada

Abstract

Introduction: The surgical management for insufficient weight loss after sleeve gastrectomy (SG) is still debated.

Objective: To assess the risks and medium-term benefits of adding a Duodenal Switch (DS) for the management of SG weight loss failure.

Methods: All patients who underwent a laparoscopic DS for weight loss failure following SG, with a minimal follow-up of 2 years were included in this study (N=59). Patients were matched 1 to 1 for age, sex, body mass index (BMI) and the year of surgery with a group of patients who underwent a single-stage laparoscopic biliopancreatic diversion with duodenal switch (BPD-DS). Data were extracted from our prospective electronic database and are reported as the mean ± standard deviation.

Results: The initial BMI (53.8±9.7 vs. 52.7±7.8kg/m2, p=0.4), age (44.0±10.2 vs. 43.4±9.6 years, p=0.5) and sex-ratio (37F/22H) were similar in both groups. All patients were available for follow-up at a mean 48.4±15.9 months from the initial surgery. Patients were converted to BPD-DS after a mean 24.4±10.2 months. There was no short or long-term mortality. Major 30-days complications occurred in 3%, 5% and 5% after SG, 2nd-stage DS and one-stage BPD-DS, respectively.
At the time of conversion, the Excess Weight Loss (EWL) was 38.7±17% and total body weight loss (TBWL) was 20.3±9.3%. Following revision or single-stage BPD-DS, the EWL and TBWL were 74.8±18% vs. 87.9±18% at 1 year (n=107, p=0.00021), 87.9±16% vs. 92.2±14% at 2 years (n=90, p=0.17) and 90.4±38% vs 87.3±16% at 3 years (n=69, p=0.6). The incidence of Type 2 diabetes (T2DM) and hypertension before surgery were 44% vs 30% and 57 vs 47%. At last follow-up, remission rate for T2DM was 56%, 88% and 93% after SG, 2nd stage DS and BPD-DS, respectively. Remission of hypertension (n=34 vs 28) was 38%, 71% and 71% after SG, 2nd stage DS and BPD-DS.

**Conclusion:** Second-stage DS is an excellent option for the management of failed SG, with an additional 38% EWL and 32% remission rate for T2DM. There was no significant difference in terms of benefits with primary BPD-DS.

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