

Duodenal switch for the management of failed sleeve gastrectomy: a matched controlled trial.

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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 \pm standard deviation.

Results: The initial BMI (53.8 ± 9.7 vs. $52.7 \pm 7.8 \text{ kg/m}^2$, $p=0.4$), 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 $38.7\pm 17\%$ and total body weight loss (TBWL) was $20.3\pm 9.3\%$. Following revision or single-stage BPD-DS, the EWL and TBWL were $74.8\pm 18\%$ vs. $87.9\pm 18\%$ at 1 year ($n= 107$, $p=0.00021$), $87.9\pm 16\%$ vs. $92.2\pm 14\%$ at 2 years ($n= 90$, $p=0.17$) and $90.4\pm 38\%$ vs $87.3\pm 16\%$ 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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