

Oral presentation

OP-002 IMPROVEMENT OF GLYCEMIC CONTROL IN PREDIABETIC AND TYPE 2 DIABETIC PATIENTS UNDERGOING LAPAROSCOPIC SLEEVE GASTRECTOMY (LSG) IN NEWFOUNDLAND AND LABRADOR

Kendra Lester, Laurie Twells, Deborah Gregory, Christopher S. Kovacs, J.M. Gamble.
Memorial University of Newfoundland

10.1136/jech-2013-203098.8

Introduction Newfoundland and Labrador (NL) has the highest prevalence of diabetes in the country. In 2011, 11.1% of the population were identified as diabetic. LSG is a minimally invasive and irreversible procedure in which 80% of the stomach is removed, leaving a much smaller stomach or “sleeve”. It is a promising treatment option for obesity, and recent studies demonstrate that LSG may be effective in improving/resolving T2DM in obese patients.

Objectives This study is evaluating LSG and its effectiveness in the improvement of glycemic control in prediabetes or type 2 diabetes mellitus (T2DM).

Methods All patients (n=66) undergoing LSG in NL since May 2011 are followed prospectively. Patients are classified as having

prediabetes (HbA1c: 5.7–6.4% or FPG: 6.1–6.9 mmol/L) or T2DM (HbA1c > 6.5% or FPG ≥ 7.0 mmol/L, self-reported, or antidiabetic medication use) at baseline. Glycemic control is evaluated at 3, 6, and 12 months. The primary outcome is the proportion of patients experiencing improved glycemic control.

Results At baseline, 16 (24.2%) patients have prediabetes (average HbA1c 5.8% (SD 0.3), FPG 5.6 mmol/L (SD 0.7)) and 31 (47.0%) have T2DM (average HbA1c 7.6% (SD 1.4), FPG 8.1 mmol/L (SD 2.5)). Interim analysis within 6 months post-surgery: of the 11 prediabetic patients who've completed follow-up, 8 (72.7%) have HbA1c < 5.7% ($p=0.004$) and 11 (100%) FPG < 6.1 mmol/L; of T2DM patients who've completed follow-up, 12 of 19 (63.2%) have HbA1c < 6.5% ($p<0.001$) and 14 of 17 (82.4%) have FPG < 7.0 mmol/L ($p=0.003$). Prediabetes and T2DM groups show significant improvements in HbA1c (-0.6% and -1.5% respectively) and FPG (-1.0 mmol/L and -2.0 mmol/L respectively), $p<0.001$ for all. 9 of 21 T2DM patients (42.9%) who completed follow-up are no longer taking antidiabetic medications.

Conclusions Interim analysis indicates better glucose control is achieved within 6 months following LSG.