

Table 1. Modeled prevalence and 95% confidence intervals of substance use and indicators of related problems by time point among adults who underwent RYGB or LAGB

Modeled % (95%CI)	N	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Year 7	P for trend <sup>a</sup>
<b>RYGB</b>									
Any alcohol consumption	1472	55.1(52.7-57.5)	62.1(49.5-64.7)	55.2(52.2-57.9)	58.7(56.0-61.4)	56.9(54.2-59.7)	57.6(54.8-60.4)	58.4(55.3-61.5)	<.001
Regular (≥2 times/week) alcohol consumption	1472	4.0(3.2-4.8)	5.6(5.0-6.2)	7.7(6.5-8.8)	9.6(8.2-10.9)	9.9(8.5-11.2)	10.8(9.4-12.2)	11.3(9.8-12.9)	<.001*
Alcohol problems <sup>b</sup>	1472	4.8(3.6-5.9)	6.0(4.9-7.1)	8.2(6.9-9.5)	9.5(8.2-10.9)	9.8(8.4-11.3)	10.5(9.1-12.1)	10.9(9.3-12.6)	<.001*
Any recreational drug use	1465	3.9(3.2-4.7)	2.6(2.0-3.3)	2.6(1.9-3.4)	3.4(2.5-4.2)	2.8(2.0-3.6)	4.2(3.2-5.2)	4.3(3.1-5.5)	<.001
Counseling or hospitalization for alcohol or drug use	1467	0.4(0.1-0.6)	0.7(0.4-1.1)	0.7(0.3-1.1)	1.3(0.7-1.9)	1.2(0.6-1.7)	1.6(0.9-2.3)	1.6(0.7-2.3)	<.001
<b>LAGB</b>									
Any alcohol consumption	520	62.9(58.8-66.9)	60.2(55.7-64.3)	62.0(56.6-66.9)	62.4(57.4-66.5)	64.1(59.6-68.7)	61.5(56.8-66.1)	65.4(60.4-70.4)	<.001
Regular (≥2 times/week) alcohol consumption	520	4.4(3.2-5.7)	4.7(3.4-6.0)	7.0(5.3-8.6)	7.3(5.6-9.1)	8.1(6.3-10.0)	8.6(6.8-10.6)	9.0(6.4-11.4)	<.001
Alcohol problems <sup>b</sup>	520	4.4(3.2-5.7)	3.6(2.5-4.7)	4.3(3.2-5.7)	4.8(3.4-6.4)	5.4(3.9-7.4)	5.5(3.7-7.2)	4.9(3.4-6.4)	0.14
Any recreational drug use	517	2.2(1.3-3.1)	1.8(0.9-2.6)	1.8(1.1-2.8)	1.8(0.9-2.1)	2.1(1.1-3.1)	2.4(1.3-3.5)	1.7(0.9-2.9)	0.38
Counseling or hospitalization for alcohol or drug use	521	0.1(0.1-0.4)	0.2(0.1-0.5)	0.4(0.1-0.9)	0.2(0.2-0.7)	0.6(0.1-1.2)	0.2(0.2-0.6)	0.2(0.2-0.8)	0.38

RYGB=Roux-en-Y gastric bypass; LAGB=laparoscopic adjustable gastric banding; Controlling for age, baseline smoking status, and site; <sup>a</sup>Alcohol Use Disorders Identification Test score ≥8, or indication of alcohol-related harm or alcohol dependence<sup>c</sup>; <sup>b</sup>Linear trend unless otherwise specified; <sup>c</sup>Quadratic trend<sup>d</sup>.

over time following RYGB and LAGB. There was also an increase in alcohol problems and non-prescribed drug use, and related treatment, following RYGB only, such that more than double as many participants reported alcohol problems in years 3-7 compared to baseline. These data, in conjunction with previous pharmacokinetic studies, suggest that patients considering RYGB or who have had RYGB should be educated on the potential risk of developing alcohol problems, and screened for alcohol problems as part of regular post-operative clinical follow up.

**A5034**

**ENDOSCOPIC STENT MANAGEMENT OF POSTOPERATIVE ANASTOMOTIC LEAKS AND STRICTURES AFTER FOREGUT SURGERY**

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**Introduction:** Anastomotic complications after foregut surgery are a morbid technical complication and include leaks, fistulas, and late strictures. The management of these complications can be challenging, and when possible, it may be desirable to avoid complicated reoperation.

**Methods:** We performed a retrospective review of a prospectively managed database in order to identify patients who had undergone endoscopic stent placement after foregut surgery. Data was collected on patient demographics, preoperative workup, intraoperative findings, and postoperative outcomes.

**Results:** From October of 2009 to November of 2014, 49 patients (mean age 51.5; 37 women and 12 men) underwent endoscopic stent placement for anastomotic complication following upper gastrointestinal (UGI) surgery. The mean time from index operation to endoscopic stent placement was 317 days (range 1-5280 days). 41 (83.7%) of index surgeries were bariatric operations, and the remaining 8 included cancer surgery and peroral endoscopic myotomy (POEM). A total of 56 stents were deployed, and of these the majority were partially covered self-expanding metal stents (81.6%) and the remainder were fully covered self-expanding metal stents (20.4%). Indications for stent placement were leak (n = 27), stricture (n = 15), fistula (including gastrogastric and enterocutaneous, n = 4), anastomotic perforation (n = 1), and bleeding (n = 1). Symptomatic improvement occurred in 73.5% of patients (n = 36) and early oral intake

Characteristic	Value (percentage)
Patients (n)	49
Age (years)	51.55 ± 12.5
Sex	
Male	12 (24.5)
Female	37 (75.5)
Primary surgery	
RYGB	15 (30.6)
SG	24 (49)
BPD/DS	2 (4.1)
Upper GI surgery for CA	2 (4.1)
Upper GI surgery, other	5 (10.2)
POEM	1 (2)
Revisional surgery	3 (6.1)
Indication for stent placement	
Anastomotic leak	27 (55.1)
Stricture/stenosis	15 (30.6)
Fistula (GG or ECF)	4 (8.2)
Anastomotic perforation	1 (2%)
UGIB	1 (2%)
Stent type	
FCSEMS	10 (20.4)
PCSEMS	40 (81.6)
Number of stents placed per patient	
Single stent	42 (85.7)
Two stents	7 (14.3)
Symptom improvement?	
Yes	36 (73.5)
No	13 (26.5)
Resolution of symptoms?	
Yes	17 (34.7)
No	32 (65.3)
Enteral intake within 46 hours?	
Yes	25 (51)
No	24 (49)
Did patient require stent replacement?	
Yes	17 (35.7)
No	31 (64.6)
Stent related complications	
Migration	3 (6.1)
Upper GI bleed	1 (2)

RYGB = Roux-en-Y gastric bypass; SG = sleeve gastrectomy; BPD/DS = biliopancreatic diversion with duodenal switch; CA = cancer; POEM = peroral endoscopic myotomy; GG = gastrogastric; ECF = enterocutaneous fistula; UGIB = upper gastrointestinal bleed; FCSEMS = fully-covered self-expanding metal stent; PCSEMS = partially-covered self-expanding metal stent.

was initiated in 51% of patients (n = 25). 17 patients required subsequent stent exchange for continued symptomatology. No patients required reoperation. Stent migration occurred in 3 patients which was addressed endoscopically. There were no deaths in our series. The average duration of stent placement was 21.2 days (range 1-53 days). The average follow-up was 352.6 days (range 13-1912 days).

**Conclusion:** We propose that in the appropriate setting, endoscopic stent management of anastomotic complications following upper gastrointestinal surgery is an effective and less invasive therapeutic approach. Advantages include expediting early enteral nutrition and decreased morbidity compared to reoperation.

**A5035**

**WEIGHT LOSS AFTER REVISION FROM LAPAROSCOPIC ROUX EN-Y GASTRIC BYPASS TO DUODENAL SWITCH.**

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**Background:** Morbid obesity is chronic insidious disease which leads to range of diseases and reduces the health related quality of life. Bariatric Surgery has been found to be a reliable treatment for morbid obesity, giving better long term weight reduction. One of the widely used bariatric surgeries is Roux en-Y Gastric Bypass (RYGB) which yields a very satisfactory result, however in some patients it may fail to give adequate result. We performed the duodenal switch (DS) in patients for whom Roux-en-Y gastric bypass have failed. The purpose of this study was to evaluate the outcomes of the patient who had failed RYGB and were converted to DS, in terms of their weight loss.

**Methods:** We evaluated 20 patients who underwent DS (6 underwent regular DS and 14 underwent Loop DS) after their failed RYGB. All surgeries were performed by single surgeon at single institute. We retrospectively reviewed the data that included age, BMI, estimated blood loss and length of stay. Change in BMI and weight loss between pre-op and post-op follow up were evaluated.

**Results:** Of 20, 15 patients are 1 year post-operative mark. 1 patient lost to follow up. The mean age and BMI before conversion was 51.55 yrs and  $45.644 \pm 10.007$  kg/m<sup>2</sup> respectively. The mean weight was  $281.79 \pm 69.76$  lbs. Mean estimated blood loss during the surgery was 39.64 cc and length of stay was 4.16 days. At 3 months, change in BMI was 6.33kg/m<sup>2</sup> which correlate with 34.50 % of excess BMI lost (EBMIL) and 15.16% of total body weight loss (TBWL). At 6 months, change in BMI was 43.45kg/m<sup>2</sup>, with EBMIL of 43.45% which correlate with 19% TBWL. At 1 year, change in BMI was 12.64 kg/m<sup>2</sup>, with EBMIL of 62.10% which correlate with 27% of TBWL. For the patients with greater than 1 year follow up (range= 12.7 to 25.9 months), EBMIL reached a mean of 69.7% and TBWL of 29.20%.

**Conclusion:** Laparoscopic revision from Gastric Bypass to Duodenal switch shows effective weight loss results in short term follow up of 1 year. The risk of dumping syndrome is comparatively low as compared to gastric bypass as DS preserves the pylorus when compared to GBP. Future analysis is needed on long term follow up, evaluation of quality of life and risk of micro-nutrient deficiency.

#### A5036

### LAPAROSCOPIC DUODENAL SWITCH: ONE OR TWO LOOPS?

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**Background:** Malabsortive bariatric procedures are not common practice worldwide. Results and safety of Duodenal Switch (DS) have been widely published. From 2007 SADI-S has evolved as a simplified DS with comparable results from preliminary series. This paper compares both procedures from two high volume and experienced Centers.

**Methods:** Retrospective review from prospective databases was done from two different Centres, one specialized on SADI-S and

the other on DS. SADI-S was constructed with a 54F bougie for the Sleeve gastrectomy and with a common channel of 250cm. DS was constructed over a 36F with a 200cm Roux limb and 100cm common channel. Patients with primary procedures and comparable in terms of age, BMI and comorbidities were included for analysis. We evaluated weight loss, early and late complications profile, comorbidities evolution and biochemical profile.

**Results:** 176 DS and 160 SADI-S were included. Both groups were comparable at baseline parameters. Overall morbidity rate was 5% in the SADI-S and 11% in the DS group ( $p=0.047$ ) and reoperation rate was 3.1% vs 6% ( $p=0.265$ ). There was no mortality at any group. Weight loss was greater at the SADI-S group from 18 to 72 months of follow up, being 93.06% EBMIL vs. 73.89% at 5 years of follow-up. SADI-S was also less likely to have failure to weight loss at follow-up. Comorbidities resolution was similar in both procedures, with no significant differences. During follow-up 7 patients in the SADI-S group needed reoperation due to protein malnutrition, none at the DS group.

**Conclusions:** This study has a strong limitation due to the different channel in both groups (250cm vs 300cm). Though this difference, SADI-S seems to be superior to DS in terms of weight loss, but it takes more risk of malnutrition. The simpler technique of the SADI-S shows less early complications and reoperations.

#### A5037

### HIGH FREQUENCY OF RE-OPERATIONS FOLLOWING OPERATION FOR INTERNAL HERNIATION IN PATIENTS WITH LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS: A NATIONWIDE STUDY BASED ON THE DANISH NATIONAL PATIENT REGISTRY

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**Background:** Laparoscopic Roux-en-Y Gastric Bypass (LRYGB) is the most used procedure in the treatment of morbid obesity in Denmark. Internal herniation (IH) or intermittent internal herniation (IH) is probably the most common late complications after LRYGB. The cumulative five-year incidence of IH/IH is 4% in Denmark. The aim of this study was to investigate if there is an increased risk for further operations after the first internal herniation.

**Methods:** We performed a retrospective nationwide analysis of prospectively collected data from 12 221 patients with LRYGB in Denmark from 2006 to 2011 based on the Danish National Patient Registry (NPR). During this time period, mesenteric defects were not routinely closed during LRYGB. Then we conducted a long-term follow-up (to May 2013) study of all patients who were operated for a first time IH/IH. In patients with possible re-herniation operative approaches were registered, that is whether the reoperation was performed initially laparoscopically or open or converted to open surgery.

**Results:** 383 patients had an operation for first-time IH/IH based on the retrieval of the NPR. One hundred and one of the 383 patients (26.4%; 95% CI: 22.1–31.0) had second operations during follow-up with a median time interval from the first IH/IH operation of 8 months (range 0–41 months). Twenty-seven of