BARIATRIC SURGERY AND CHOLECYSTECTOMY

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Introduction: Obesity is a risk factor for gallstone formation and many bariatric patients suffer from symptomatic cholelithiasis. Patients with high BMI are at increased risk of surgery-related and anesthesia-related morbidity.
This study assessed morbidity data for patients undergoing bariatric surgery with and without concomitant cholecystectomy.

Methods:

ACS-NSQIP database for years 2006-2016

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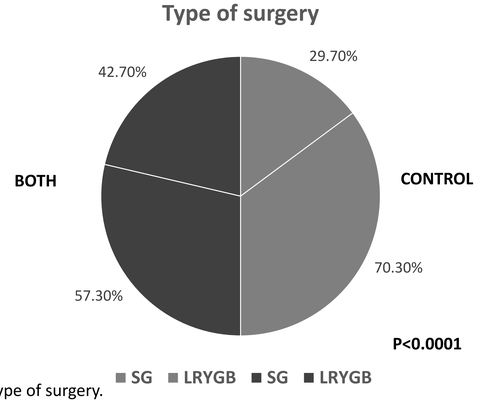
Sleeve gastrectomy (SG) Roux-en-Y gastric bypass (LRYGB)
163,413

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Bariatric Surgery only (CONTROL)
159,023

Bariatric surgery + lap Chole (BOTH)
4,390

Results:



Graph 1 Type of surgery.

	Total (n=163,413)	Control (159,023)	BOTH (4,390)	p value
Age	44.62±11.72	44.58±11.73	46.26±11.33	**< 0.001**
BMI	45.99±8.2	45.98±8.18	46.66±8.21	**< 0.001**
ASA class (mean)	2.73±0.5	2.72±0.51	2.81±0.49	**< 0.001**
Gender, male	33,669 (20.6%)	33,057 (20.6%)	612 (20.1%)	0.452
Hypertension	32,661 (47,2%)	32,049 (47.2%)	612 (46.9%)	.418
Diabetes	15,845 (22.9%)	307 (23.5%)	1,087 (35.6%)	.596
COPD	1,106 (1,6%)	1,086 (1.6%)	20 (1.5%)	.986
Smoke	6,737 (9.7%)	6,617(9.7%)	120 (9.2%)	.538
Steroid	1,249 (1.8%)	1,214 (1.8%)	35 (2.7%)	.016
CHF	193 (0.3%)	188 (0.3%)	5 (0.4%)	.420
Renal Failure	34 (0.1%)	33 (0.1%)	1 (0.1%)	.477
Dialysis	300 (0.4%)	294 (0.4%)	6 (0.5%)	.830
Transfusion	19 (0.1%)	19 (0.1%)	0 (0%)	.545

Table 1 comorbidities.

	Control	BOTH	p value
SG	87.24±42.70	122.12±52.21	**< 0.001**
LRYGB	133.26±55.99	166.33±67.96	**< 0.001**

Table 2 Operative time in minutes.

	Odds	CI Lower	CI Upper
SSI	.950	.687	1.315
Pneumonia	**1.854**	**1.217**	**2.823**
PE	1.544	.760	3.135
Urinary Tract Infection	.952	.610	1.487
Cardiac Arrest	1.403	.443	4.445
Bleeding	.719	.521	.992
DVT	1.332	.684	2.592
Sepsis	1.297	.809	2.078
Septic Shock	**2.421**	**1.408**	**4.162**
Return to OR	**1.279**	**1.024**	**1.598**
30 day mortality	1.386	.567	3.387

Table 3 Odds Ratio BOTH group SG

	Odds	CI Lower	CI Upper
SSI	1.248	.589	2.642
Pneumonia	1.676	.620	4.526
PE	1.987	.629	6.270
Urinary Tract Infection	.408	.102	1.642
Cardiac Arrest	1.001	1.000	1.001
Bleeding	.780	.416	1.463
DVT	1.332	.684	2.592
Sepsis	1.554	.576	4.193
Septic Shock	1.001	1.000	1.001
Return to OR	1.524	.939	2.475
30 day mortality	1.177	.163	8.502

Table 4 Odds ratio BOTH group LRYGB

Conclusion: Patients undergoing bariatric surgery with concomitant cholecystectomy had an overall major operative time. Patients with SG and Cholecystectomy had a major risk of complications
There is no difference in the 30 days mortality.
Further study is warranted to help guide operative planning for patients with morbid obesity and symptomatic cholelithiasis.