EXCESS WEIGHT LOSS VARIABILITY BY AGE GROUP AFTER GASTRIC BYPASS IN A LARGE VOLUME CENTER

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Introduction

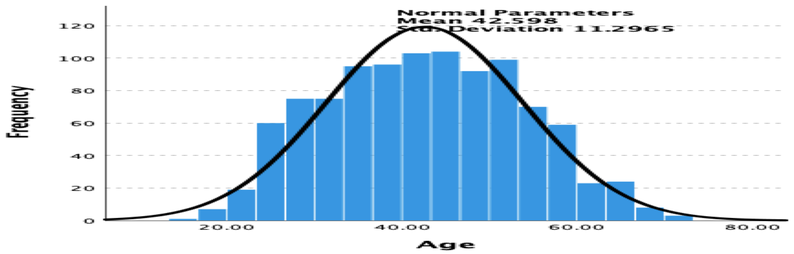
Laparoscopic Roux-en-Y Gastric Bypass (LRYGB) is one of the principal bariatric procedures performed around the world. It allows for the reduction of around 60-70% of excess weight loss at 2 years after the procedure. However, the reproducibility of these outcomes across age groups has been controversial, especially in the extremes of age, where the safety of the intervention comes in question with our most frail patients. This study assessed a one-year percentage of excess weight loss after LRYGB comparing the different age groups operated in our center.

Methods: Montefiore-MBSAQIP database for years 2014 - 2017 was used. Patients were included if they underwent primary RYGB. The patient´s age underwent analysis of normality allowing for the division of our sample in four age quartiles. A one-way Welch ANOVA test was conducted to determine if the percentage of excess weight loss (%EWL) one year after surgery was different between the 4 groups. Data are presented as mean +/- standard deviation. A p-value of <. .05 was considered statistically significant. We also compared general patient characteristics, complication rates, intraoperative variables and bariatric outcomes at 30 days and 1 year.

Results: A total of 1013 patients underwent non-revisional LRYGB in the analyzed period. Mean %EWL at one year was 55.16% in the whole sample. However, when compared between age quartiles, there was a statistically significant difference in %EWL: 62.45 vs. 57.20 vs.53.67 vs. 46.65. (p=0.010) . The differences in complication rates between our groups did not reach statistical significance.

Conclusion

There is a difference in the percentage of excess weight loss one year after LRYGB based on the age group in our patient population. The quartile of age presenting the less %EWL was the eldest. Factors associated with less %EBL in the elder population merit further analysis to better understood. However, the outcomes of LRYGB in our eldest group proved to be acceptable in terms of safety as complication rates were equivalent to other quartiles of age



Variable	Total (n=1013)	1st (n= 253)	2nd (n=254)	3rd (n=254)	4th(n=252)	P*
Age	42.5 (11.29)	28.09 (3.86)	38.27 (2.48)	46.80 (2.56)	57.26 (4.66)	**<0.001**
Gender Female Male	858 (84.7%) 155 (15.3%)	214 (84.6%) 39 (15.4%)	216 (85%) 38 (15%)	212 (83.5%) 42 (16.5%)	216 (85.7%) 36 (14.3%)	0.915
Smoker Yes No	85 (8.4%) 928 (91.6%)	27 (10.7%) 226 (89.3%)	21 (8.3%) 233 (91.7%)	21 (8.3%) 233 (91.7%)	16 (6.3%) 236 (93.7%)	0.378
Height	163.39 (8.45)	165 .10 (8.20	163.91 (8.63)	163.14 (8.45)	161.07 (7.94)	**<0.001**
Highest BMI	46.02(6.39)	48.02 (6.91)	46 (6.18)	45.40 (6.14)	44.65 (5.81)	**<0.001**
BMI before Sx	44.84 (6.47)	46.90 (6.68)	44.89 (6.15)	44.31 (6.72)	43.24 (5.78)	<0.001

Intraoperative Variables						
Technique GIA Handsewn EEA	146 (14.4%) 434 (42.8%) 433 (42.7%)	26 (10.3%) 130 (51.4%) 97 (38.3%)	30 (11.8%) 103 (40.6%) 121 (47.6%)	37 (14.6%) 103 (40.6%) 114 (44.9%)	53 (21%) 98 (38.9%) 101 (40.1%)	**0.002**
Duration of Surgery (Minutes)	108.57 (29.83)	103.72 (24.63)	108.96(28.62)	110.16 (27.75)	111.44 (36.62)	**0.020**

Outcomes & Complications						
Superficial SSI Yes No	19 (1.9%) 994 (98.1%)	3 (1.2%) 250 (98.8%	9 (3.5%) 245 (96.5%)	3 (1.2%) 251 (98.8%)	4 (1.6%) 248 (98.4%)	0.153
Deep SSI Yes Np	1 (0.1%) 1012 (99.9%)	0 253 (100%)	1 (0.4%) 253 (99.6%)	3 (1.2%) 251 (98.8%)	0 252 (100%)	0.393
DVT/PE Yes No	4 (0.4%) 1009 (99.6%)	1 (0.8%) 252(98.2%)	1 (0.4%) 253 (99.6%)	1 (0.4%) 253 (99.6%)	0 252 (100%)	0.571
Postop Transfusion Yes No	22 (2.2%) 990 (97.7%)	1 (0.8%) 252(98.2%)	9 (3.5%) 245 (96.5%)	6 (2.4%) 248 (97.6%)	5 (2%) 247 (98%)	0.270
Admission to ICU 30 days Yes No	3 (0.3%) 1010 (99.7%)	0 1013 (100%)	2 (0.8%) 252 (99.2%)	1 (0.4 %) 253 (99.6%)	0 252 (100%)	0.301
LOS	1.80 (0.92)	1.71 (0.77)	1.76 (1.01)	1.83 (1.03)	1.89 (0.83)	0.148
Dispo Home SNF	1010 (99.7%) 2 (0.2%)	251 (99.2%) 2(0.8%)	254 (100%) 0	253 (99.6% 1 (0.4%)	254 (100%)	0.173
Number of readmissions 0 1 2	970 (95%) 40 (3.9%) 3 (0.3%)	241 (95.3%) 10 (4%) 2 (0.8%)	242 (95.3%) 12 (4.7%)	245 (96.5%) 8 (3.1 %) 2 1 (0.4%)	242 (96%) 10 (4%)	0.610
Number of reoperations 0 1 2	1010 (99.7%) 2 (0.2%) 1 (0.1%)	253 (100%)	253 (99.6%) 1 (0.4%)	252 (99.2%) 1(0.4%) 1(0.4%)	0 252 (100%)	0.545

BARIATRIC OUTCOMES						
%EBWL 30 days	14.80(5.67)	14.30 (13.38)	15.13 (5.58)	14.89 (5.73)	14.87 (6.15)	0.406
EBWL 1 year	55.16(48.28)	62.45(29.31)	57.20 (35.82)	53.67(39.70)	46.65 (5.52)	**0.010**

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