The Effect of Pre-operative Patient Factors on Post-Operative Weight Loss

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Background

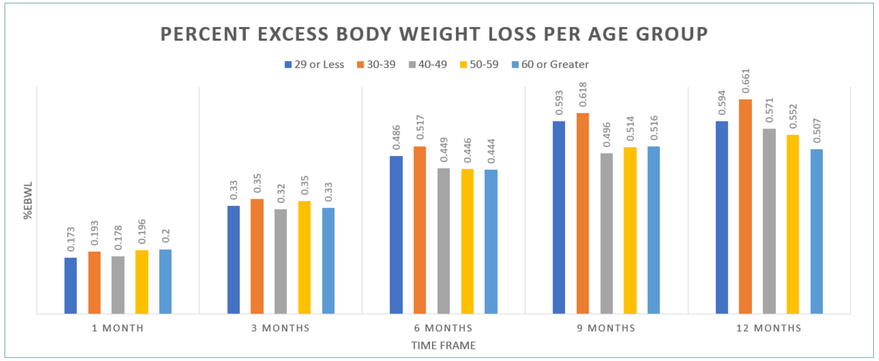
- Bariatric surgery is an evolving field with the goal of achieving profound and sustainable weight loss for patients with morbid obesity.
- While bariatric procedures are known to be effective, appropriate and optimized patient selection remains elusive

Purpose

Identify pre-operative patient characteristics associated with improved weight loss outcomes after bariatric surgery.

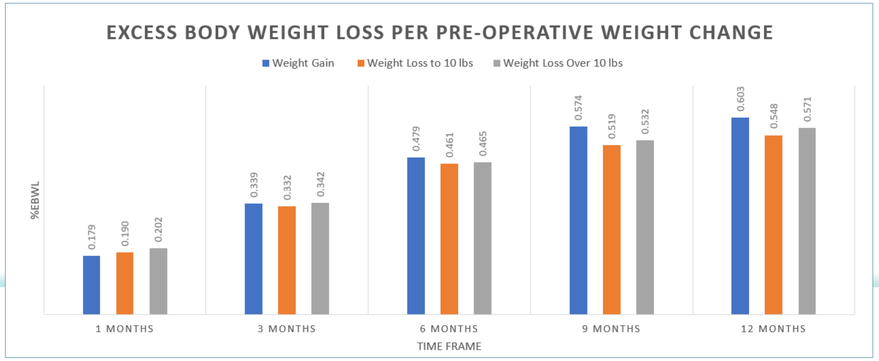
Methods

- A retrospective survey was performed of patients from Sentara Comprehensive Weight Loss Solutions from 1/1/2013 to 2/18/2021.
- 251 patients were identified (78% sleeve, 22% roux-en-y bypass).
- Post-operative weight loss was determined at 1, 3, 6, 9, and 12 months
- Analysis of variance models were then used to compare differences within the various groupings.



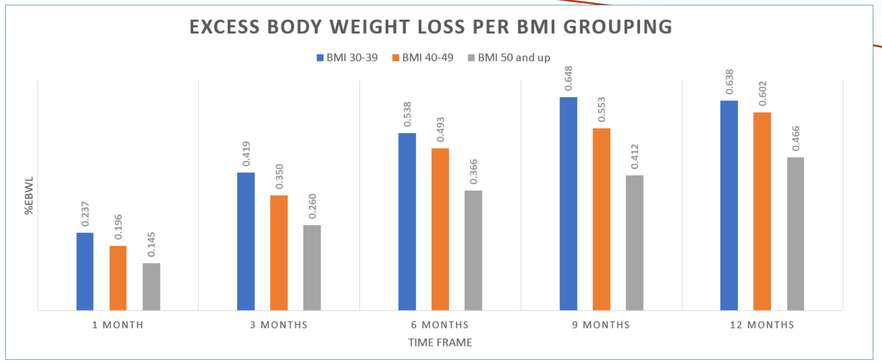
	1 Month	3 Months	6 Months	9 Months	12 Months
p-value	0.429	0.489	0.031	0.110	0.014

Fig. 1 – Comparison of percent excess body weight loss at each time interval, stratified by age groups. Associated p-values for ANOVA analysis in the underlying table.



	1 Months	3 Months	6 Months	9 Months	12 Months
p-value	0.115	0.831	0.731	0.435	0.348

Fig. 2 – Comparison of percent excess body weight loss at each time interval, stratified by pre-operative weight change. Associated p-values for ANOVA analysis in the underlying table.



	1 Month	3 Months	6 Months	9 Months	12 Months
p-value	> 0.001	> 0.001	> 0.001	> 0.001	> 0.001

Fig. 3 – Comparison of percent excess body weight loss at each time interval, stratified by pre-operative BMI. Associated p-values for ANOVA analysis in the underlying table.

Conclusions

- Younger patients and patients with lower BMIs lose a greater proportion of excess body weight. As such, patients should be referred for evaluation earlier.
- Pre-operative weight loss, or weight gain, does not affect percent excess body weight lost in the first year and aggressive efforts to lose weight ahead of their procedure should not affect the ability of patients to undergo operation.

Sources

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- Mahawar KK, Parmar C, Graham Y. Procedure and patient selection in bariatric and metabolic surgery. Minerva Chir. 2019 Oct;74(5):407-413. doi: 10.23736/S0026-4733.19.08121-5. Epub 2019 Jul 29. PMID: 31359745.