

INTRODUCTION

- Metabolic surgery has been growing in popularity as a safe and effective weight loss option
- Roux-en-Y gastric bypass has become the second most popular weight loss operation performed in the United States, encompassing about 30-40% of weight loss procedures.
- Despite more efficacious weight loss seen with gastric bypass, the reconstructed anatomy subjects patients to the development of marginal ulcers
- Risk factors such as smoking, NSAIDs and hypertension have been shown to contribute to the development of marginal ulcers

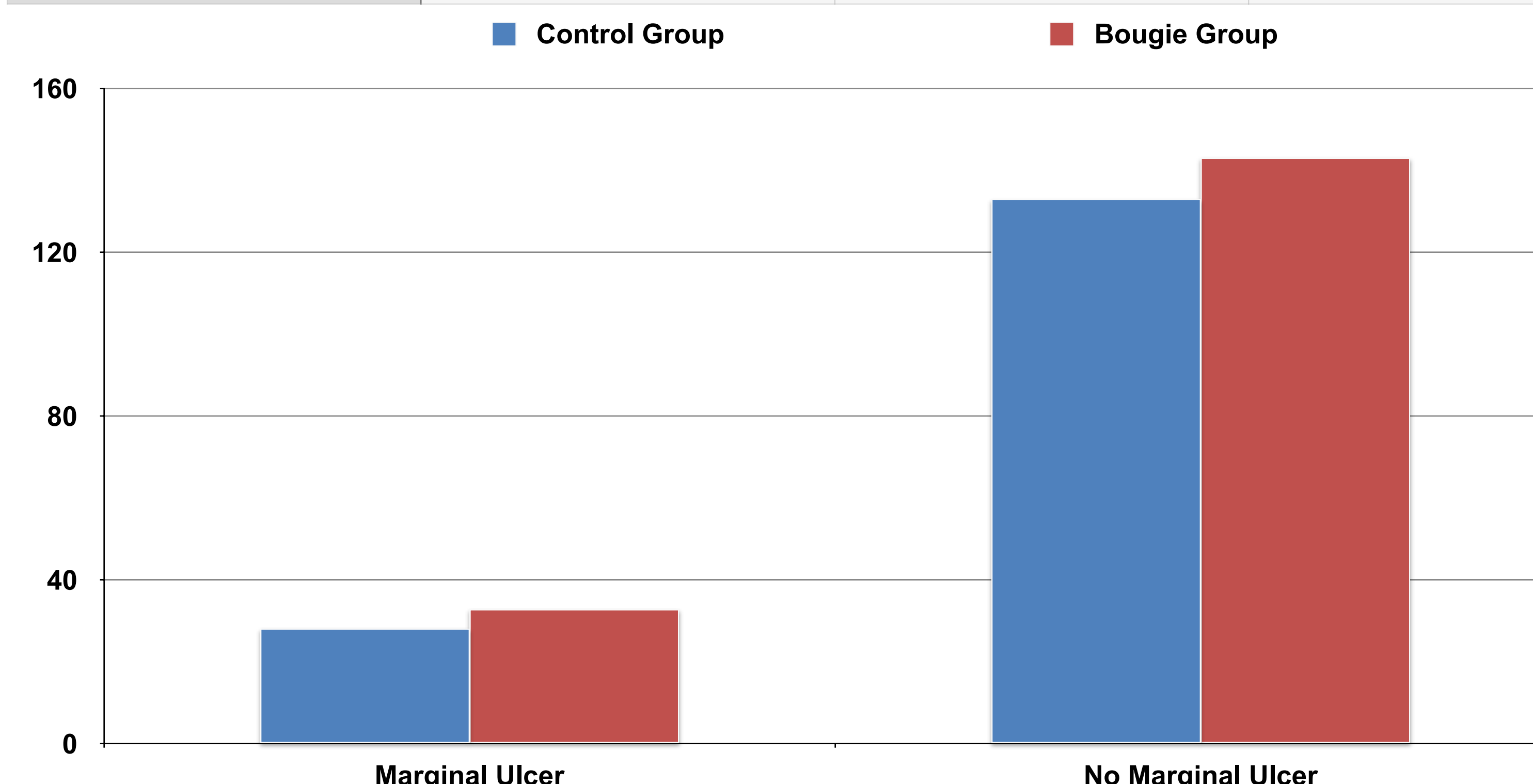
METHODS

- Our study investigated the use of an intra-operative blunt tip bougie for smaller gastric pouch sizing, and its effect on weight loss and the development of marginal ulcers.
- A retrospective review of a single surgeon's experience performing gastric bypass surgery between January 2009 - December 2018.
- 434 total patients were reviewed. 232 patients underwent surgery with the utilization of a 42F blunt tip bougie to achieve a smaller gastric pouch (bougie group) while 202 patients underwent a freehand technique (control group).
- We reviewed the incidence of marginal ulcers as evidenced by EGD findings.
- We assessed the mean time (days) to the development of a marginal ulcer postoperatively.
- We compared percent excess BMI reduction between the two groups.

RESULTS

- A Chi-square test of independence was used to examine the relationship between using a bougie tip in sizing of the gastric pouch and the development of marginal ulcer. The relationship between these variables did not demonstrate a statistically significant difference $\chi^2 (1, N=337) = .10, p = .746$
- Using the Mann-Whitney U Test, the bougie group demonstrated a statistically significant higher percent excess BMI reduction compared to the control group. (p value $< .001$)
- Using chi-square analysis, there was no statistically significant difference in occurrence of marginal ulcers between males and females. $\chi^2 (1, N=337) = .048, p = .827$

	Marginal Ulcer	No Marginal Ulcer	BMI Reduction (%)
Control Group	28 (29.14) [.04]	133 (131.86) [.01]	33.84
Bougie Group	33 (31.86) [.04]	143 (144.14) [.01]	48.23



CONCLUSIONS

- Comparing the use of a bougie tip to the free hand technique in the sizing of the gastric pouch, there is no significant difference in the development of marginal ulcers in either group.
- The bougie group, however, demonstrated significantly higher percent excess BMI reduction compared to the control group. This may be contributed by the consistency in the gastric pouch size.
- While the use of a bougie tip for gastric pouch sizing demonstrated more effective weight loss, it did not show a reduction in the incidence of marginal ulcers and in fact demonstrated quicker development of marginal ulcers compared to the control group.

CREDITS/REFERENCES

- St. Luke's Hospital on the Plaza, Kansas City, MO, for providing data access
- Dr An-Lin Cheng, UMKC Department of Biostatistics for assistance with statistical analysis
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