



Low Preoperative Albumin Levels Significantly Increase Odds of Panniculectomy Complications



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Background

Post-operative infections have serious consequences in panniculectomy. As most cases have an elective component, surgeons have the chance to optimize preoperative variables.

Aim

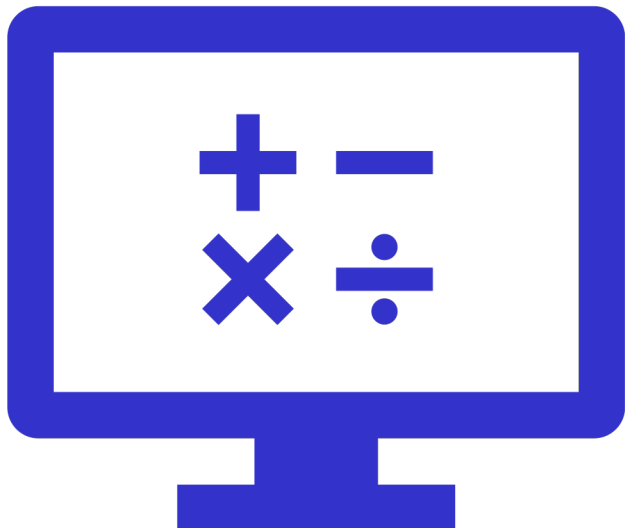
To investigate the relationship between pre-operative albumin level, wound infections and bleeding in panniculectomy patients.

Methods

Query the ACS-NSQIP* from January 2012-December 2019, for panniculectomy patients identified via CPT codes 15830

Logistic regression to determine impact of preoperative albumin level on odds of wound infection and bleeding complications.

- Logistic regression adjusted for:
- BMI
 - Diabetes status
 - Smoking status
 - Age
- Significance established at 99%



Results

Albumin Category	n	%	WI n=31	WI %	Bleeding n=69	Bleeding %
Severe Hypoalbuminemia (<2.5g/dL)	9	0.6	4	12.9	4	5.8
Mild Hypoalbuminemia (2.5-3.4 g/dL)	101	6.9	11	35.5	6	8.7
Normal (3.5-4.5g/dL)	1134	77.0	15	48.4	51	73.9
Hyperalbuminemia (>4.5 g/dL)	228	15.5	1	3.23	8	11.5
Total	1,472	100	31	100	69	100

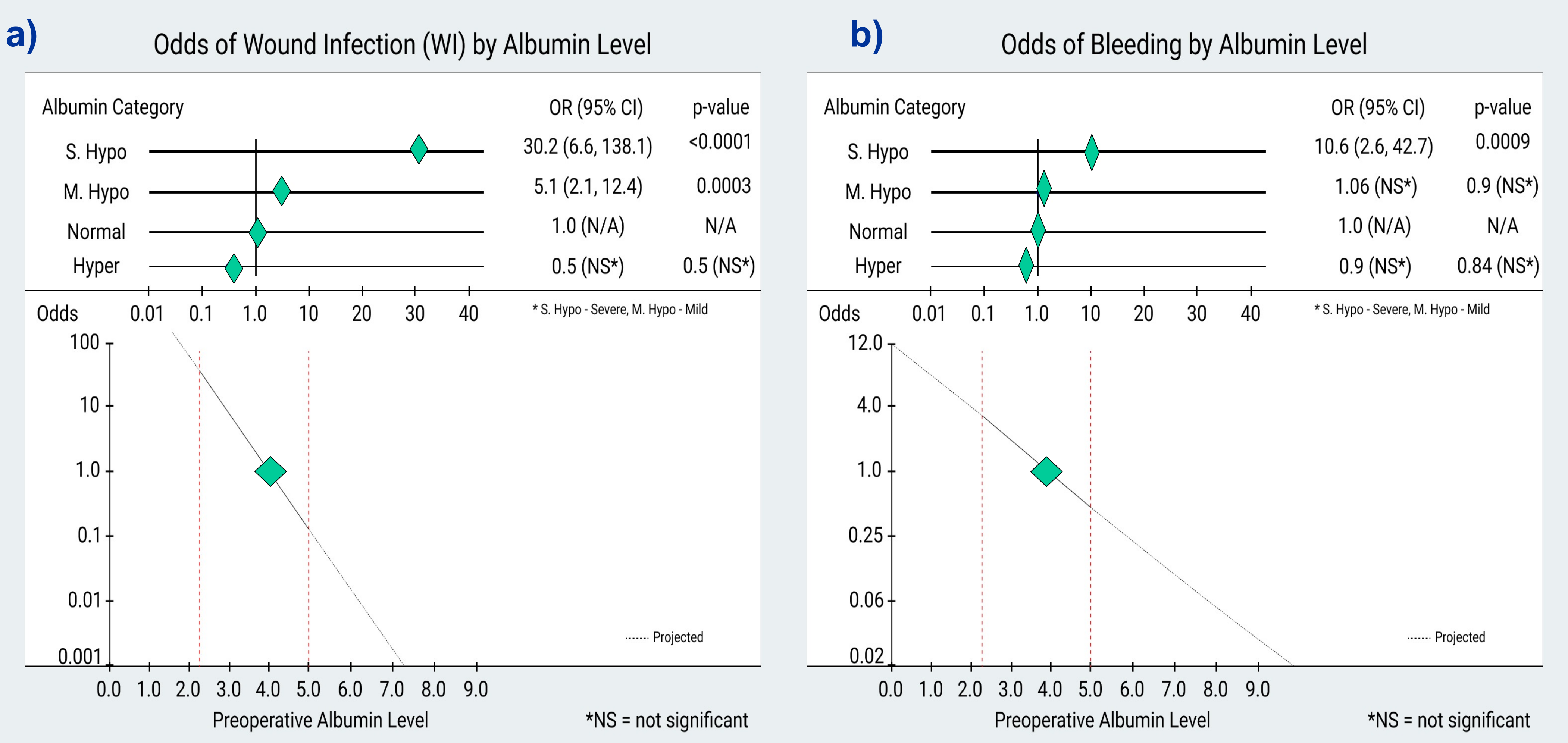
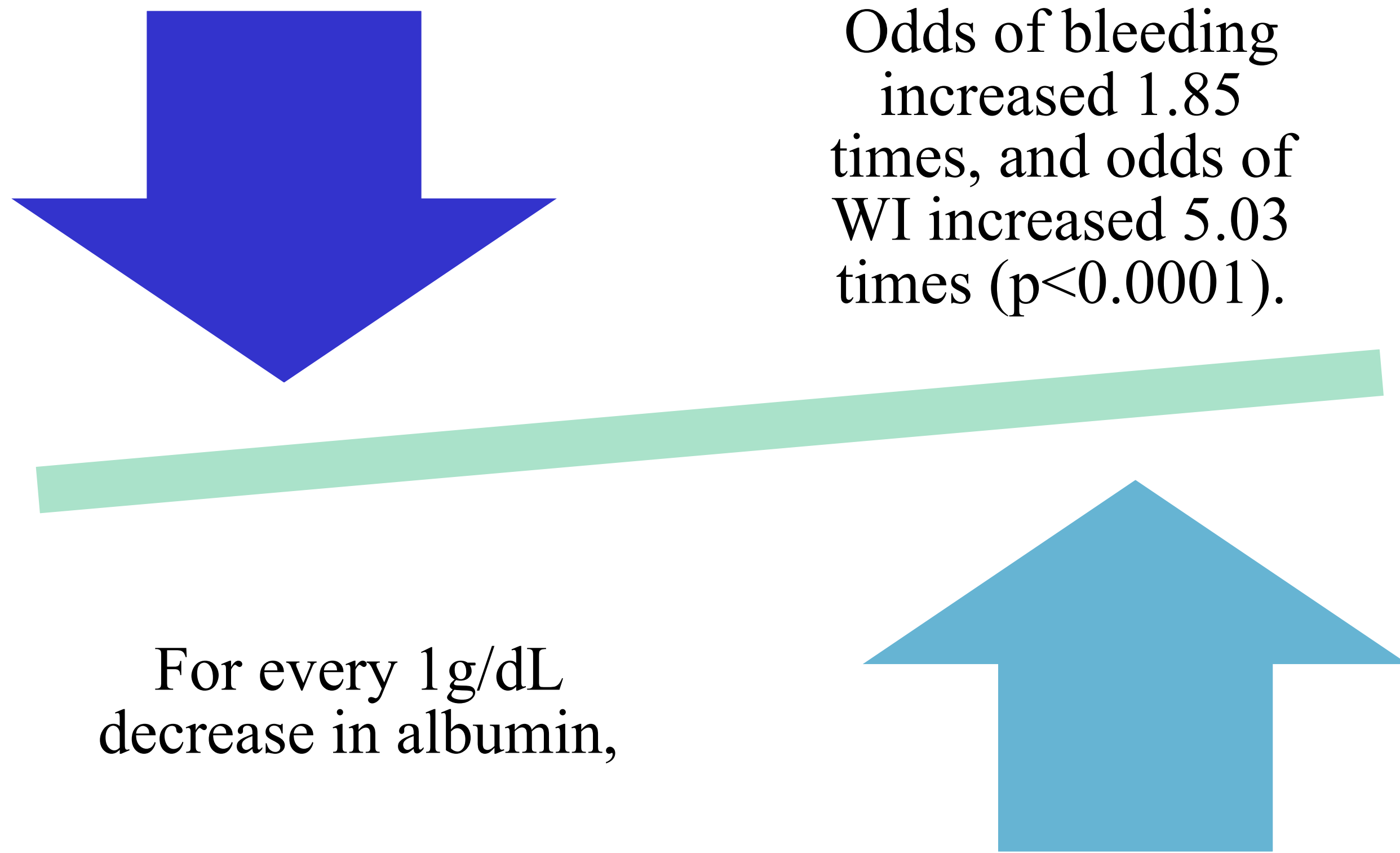


Figure 1. a) Albumin levels and strata vs. change in odds of WI and b) change in odds of bleeding. Multivariate logistic curve is shown with respect to albumin Adjusted for DM, age, BMI, and smoking status.



Conclusion

Increasing patients' albumin level preoperatively may provide an opportunity to decrease complication rates in a complication-prone population. Future studies may prospectively address preoperative albumin to evaluate the impact of nutrition supplementation on panniculectomy complication rates.

Acknowledgments

Availability of data and material (data transparency): The datasets generated and analyzed during the current study are publicly available through American College of Surgeons National Surgical Quality Improvement Program. American College of Surgeons National Surgical Quality Improvement Program and the hospitals participating in the ACS NSQIP are the source of the data used herein; they have not verified and are not responsible for the statistical validity of the data analysis or the conclusions derived by the authors.