

Straight Cuts, Blurred Outcomes: A Pilot Study Evaluating Staple Line Variance in Sleeve Gastrectomy Stomach Specimens

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INTRODUCTION

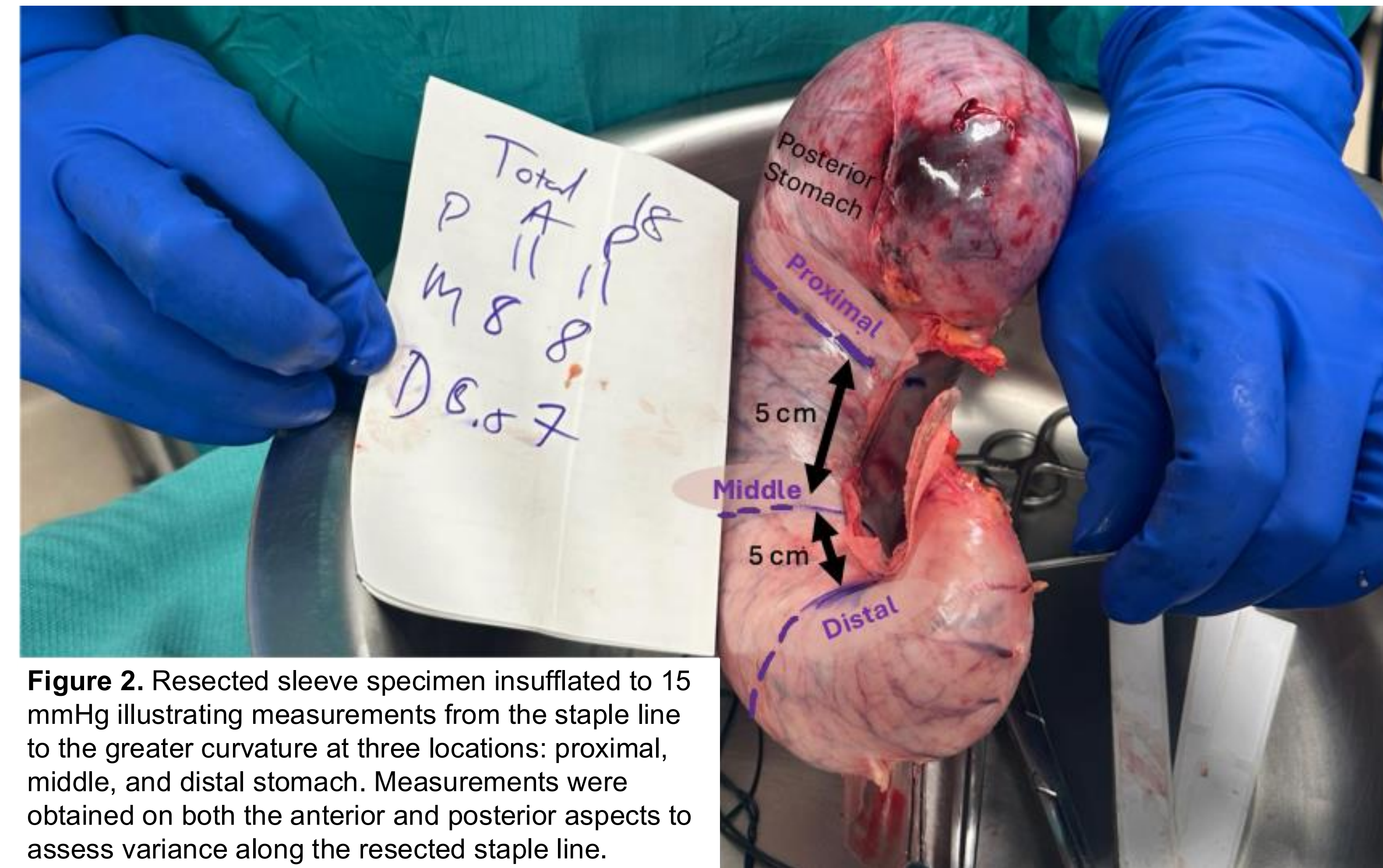
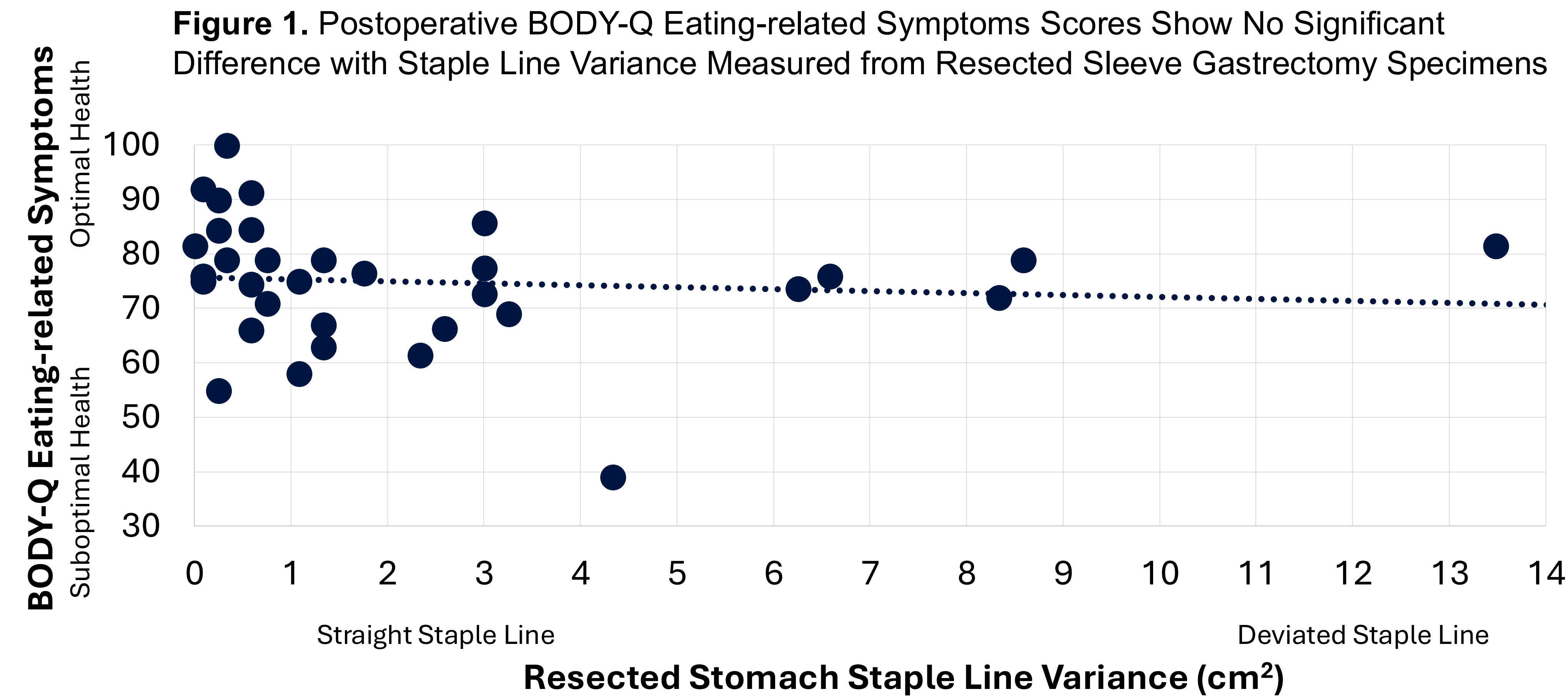
- Assessing staple line straightness after a sleeve gastrectomy (SG) is difficult
- The specific relationship between staple line straightness and patient-reported outcome measures (PROMs) is unknown

Hypothesis: increased variance in the staple line (corkscrewing) is associated with worse eating-related symptoms, reflected by lower PROMs scores.

METHODS

- SG patients between 10/2023-07/2024 were included if they had both specimen measurements and postoperative BODY-Q surveys
- Staple line variance was calculated by measuring the distance from the greater curvature to the staple line at 3 points on the resected specimen
 - Higher variance indicated “corkscrewing”

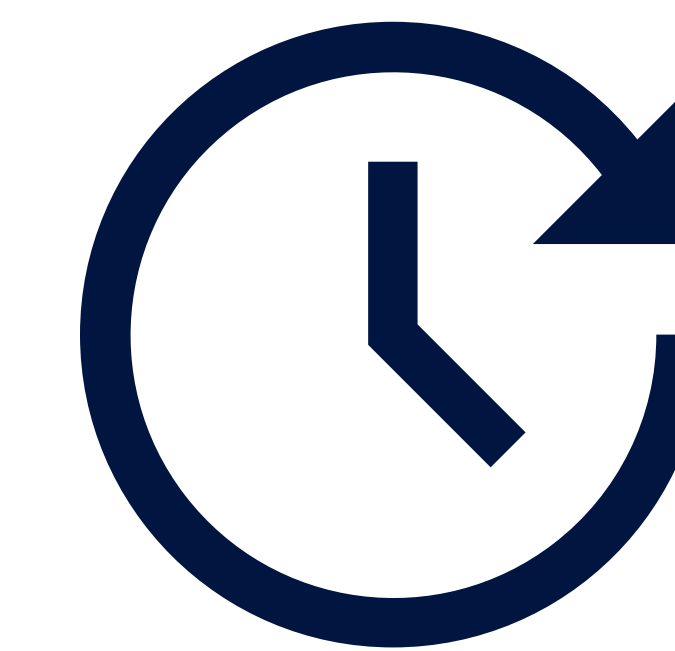
- BODY-Q eating-related symptoms, a validated 15-item PROM, were assessed within 12 months with higher scores representing fewer symptoms and better health
- A Spearman correlation was used to compare staple line variance and BODY-Q scores



RESULTS

- 34 patients were included
- There was a mild negative association between BODY-Q eating-related symptoms scores and resected stomach staple line variance ($\rho = -0.29$), which was not statistically significant ($p=0.1$)
- The average greater curvature length was 23.2 ± 3.1 cm with the proximal measurement being the longest and the distal measurement being the shortest
- The distal measurements had the greatest difference between measurements at -0.7 cm

CONCLUSIONS



- After SG, staple line variance on the resected stomach specimen did not significantly impact postoperative eating-related symptoms
- This suggests that measuring staple line variance on the resected stomach specimen may not accurately reflect the in-situ staple line

Future Directions:

- Larger studies are needed to validate these findings
- Standardized techniques for measuring staple line straightness are needed