

Long-term Weight Gain Following Laparoscopic Cholecystectomy

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Introduction

- Cholecystectomy is the definitive treatment for symptomatic gallstones.¹
- Gallbladder serves as bile acid (BA) reservoir.¹
- Removal disrupts normal pulsatile release of BAs in response to meals.^{1, 2}
- BAs stimulate the secretion of incretin hormones, which play a role in metabolic regulation.³⁻⁴
- Therefore, cholecystectomy may influence long-term body weight regulation.

Methods

Study Design

- Retrospective study at a single tertiary care center.

Population

- Adults with cholelithiasis.
- Weight recorded in 2023 and 2025.

Groups

- Experimental: Cholecystectomy in 2023 (n=50).
- Control: No cholecystectomy (n=50).

Exclusion Criteria

- Major comorbidities, pregnancy, bariatric surgery, and weight loss medications.

Primary outcomes

- Change in weight and BMI (2023–2025).

Statistical Analysis

- Multivariate regression adjusted for age, sex and baseline BMI.

Results

Study population

- Total patients: 100
- Cholecystectomy: 50
- Control: 50

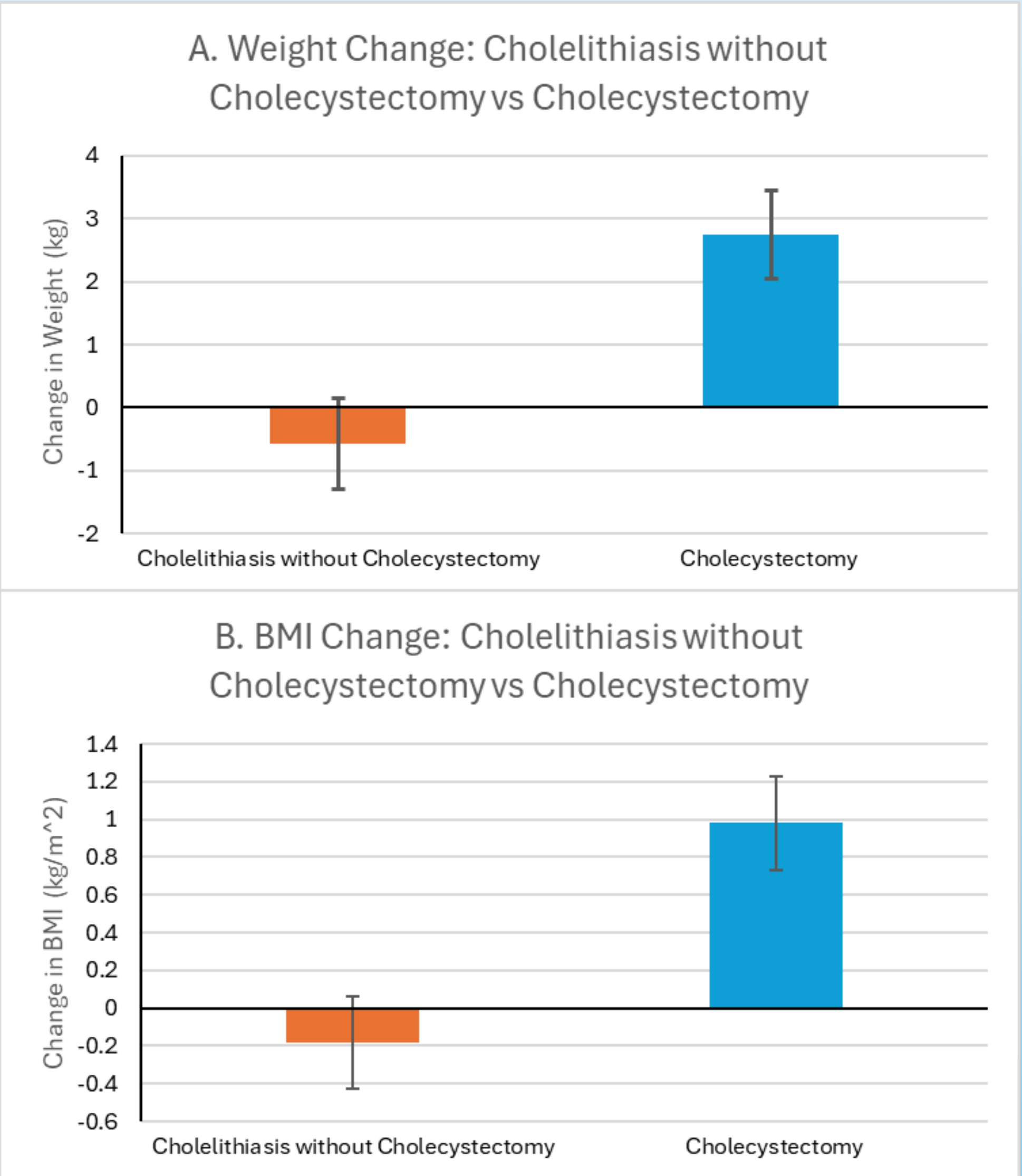
BMI Change

- Cholecystectomy group: significant increase ($p = 0.0003$).
- Control group: no significant change ($p = 0.451$).

Multivariate Regression

Cholecystectomy associated with:

- BMI Increase ($\beta = 1.43$, $p = 0.0003$).
- Weight Increase ($\beta = 4.06$, $p = 0.0004$).



Conclusions

- Cholecystectomy is associated with significant increases in weight and BMI.
- Patients may benefit from post-operative lifestyle counseling to mitigate potential weight gain.
- Larger prospective studies are needed to confirm these findings and clarify underlying mechanisms.

References

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Disclosures: None

	Cholelithiasis without Cholecystectomy	Cholelithiasis with Cholecystectomy in 2023
Age, mean (SD)	63.4 (11.8)	54.2 (15.8)
Female/Male, n (%)	31/19 (62.0%/38.0%)	24/26 (48.0%/52.0%)
Baseline BMI, kg/m ²	25.2 (4.9)	28.3 (4.5)
Difference in weight between 2023 and 2025, mean (±SD), kg	-0.58 (5.09)	2.74 (4.95)
Difference in BMI between 2023 and 2025, mean (±SD), kg/m ²	-0.19 (1.73)	0.98 (1.75)