

Hernia Outcomes Comparing A1c Levels in Diabetic Patients

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Introduction:

Hernia repairs remain one of the most prevalent operations performed by general surgeons and encompasses a large economic burden on the healthcare system. Numerous initiatives have been developed in preventing post-operative complications by identifying at risk patient demographics. Multiple publications have demonstrated diabetes as a pre-operative diagnosis that increases the risk of post-operative complications.

Objective:

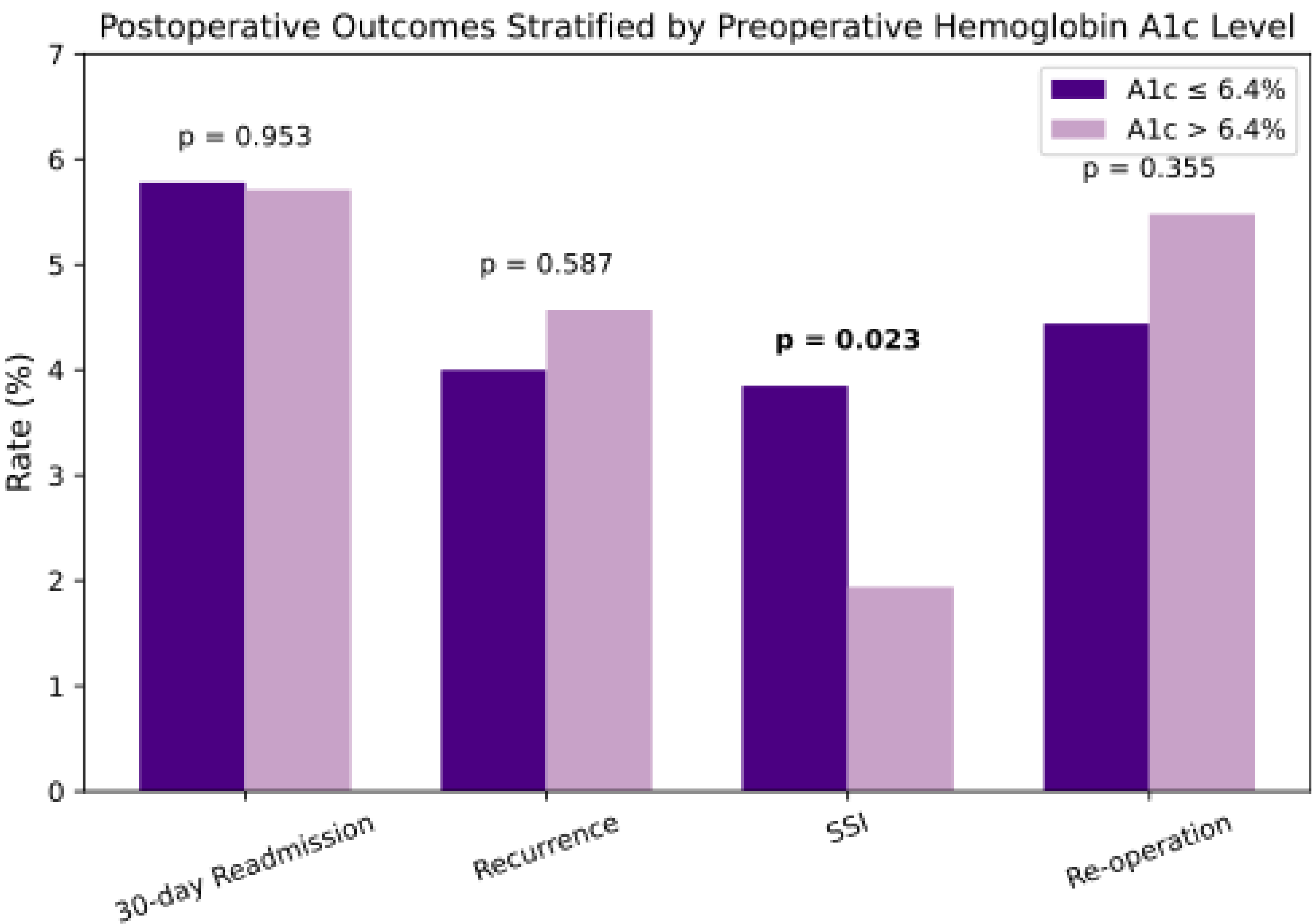
The goal of this study is to compare post-operative outcomes and complications among diabetic patients, using categorized A1c levels at the time of hernia surgery.

Methods:

- 1551 patients were identified who underwent hernia repairs from 2020-2025 and had recorded A1c levels at the time of surgery.
- Hernia repair outcomes were analyzed in known diabetics
- A1c levels were split into groups of greater than or less than 6.4%.

Results:

Outcome	A1C ≤ 6.4 (n=675)	A1C > 6.4 (n=876)	p-value
30-Day Readmission	39 (5.78%)	50 (5.71%)	0.953
Recurrence	27 (4.00%)	40 (4.57%)	0.587
Surgical Site Infection (SSI)	26 (3.85%)	17 (1.94%)	0.023*
Re-Operation	30 (4.44%)	48 (5.48%)	0.355



Discussion:

Patients with an A1c greater than 6.4 at the time of hernia surgery were not shown to have a statistically significant difference in 30-day readmission rate, recurrence or re-operation rate compared to diabetic patients with an A1c level ≤ 6.4. Interestingly in this patient population, there was a significant difference in SSI, with increased surgical site infections being found in patients with tight glycemic control. Further studies and analysis of databases are required to identify the optimal A1c cutoff to reduce post-operative complications.

References:

With IRB approval, the UPMC Comprehensive Hernia Center database was utilized.