Practice Patterns and Outcomes in Mesh Selection for Elective Ventral and Incisional Hernia Repair

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INTRODUCTION

There are many mesh products available for ventral/incisional hernia repair; however, the quality of data evaluating long term recurrence rates, and the comparison of various mesh products is lacking. In this retrospective analysis, we studied outcomes for a reduction in recurrence rates.

METHODS

- Michigan Surgical Quality Collaborative-Core Optimization Hernia Registry; Statewide Data Registry with 70 Hospitals - January 1, 2020 – March 31, 2023



One Year Follow up



Absorbable v. Nonabsorbable Mesh



Rate of Recurrence: One-Two Years



Logistic Regression
- Patient
- Operative
- Hernia Characteristics

RESULTS

- Sample Demographic of Overall Cohort

Repairs	n = 1734
Absorbable	83
Nonabsorbable	1,651
Median (IQR) Age	58 (48.0-66.0) years
Female	814 (47%)

- Absorbable versus Nonabsorbable Mesh

	Absorbable	Nonabsorbable	p-value
Females (n)	49 (59%)	765 (46%)	0.024
Myofascial Release	20 (24%)	121 (8%)	0.01
Clean Wound	74 (89%)	1599 (97%)	<0.001
Hernia Size	5cm (3-7)	3cm (2-4)	<0.0001

- Risk Adjusted Relative Risk of Recurrence

25 % vs. 19 %

Absorbable **Nonabsorbable**

aRRR (adjusted Relative Risk of Recurrence)	1.28 [95% CI (0.89, 1.85)]	p-value - 0.231

CONCLUSION

There was no difference in likelihood of patient reported ventral/incisional hernia recurrence one to two years after repair with absorbable vs nonabsorbable mesh. Trends identified should be used with measured caution due to underpowered findings to demonstrate statistically significant differences.

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