

14-year Experience With Complex Abdominal Wall Reconstruction After Cancer Resection

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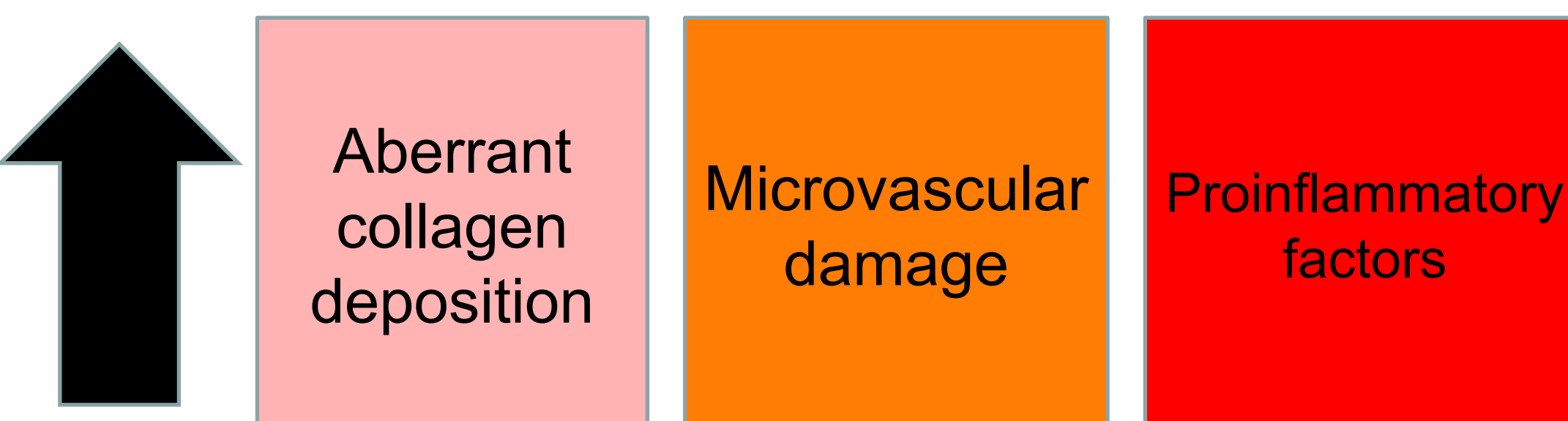


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Background

- ❑ >350,000 operations performed annually worldwide.
- ❑ Costs >\$3 billion
- ❑ Oncologic AWR in the presence of bacterial contamination is challenging

Oncologic defects



Acellular Dermal Matrix (ADM)

Rapid revascularization	Cellular infiltration
Soft tissue incorporation	Fibroblast stimulation

Knowledge gap

- ❑ Outcomes using ADM are lacking
- ❑ Unclear predictors of long-term outcomes

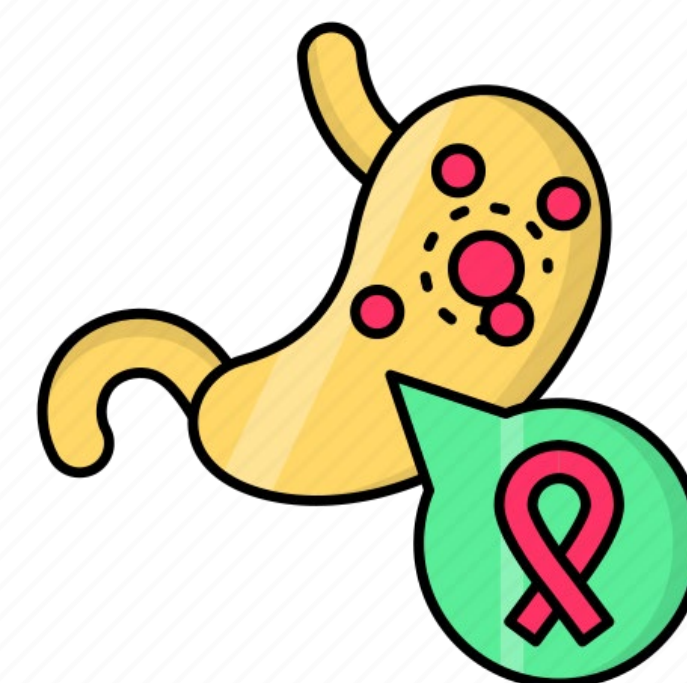
Objective



Surgical outcomes



Predictors of outcomes



Methods



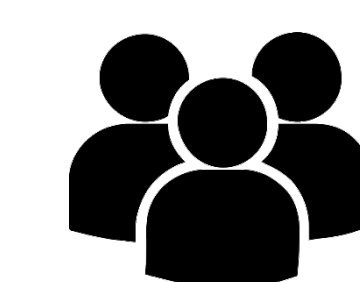
Retrospective Cohort Study
2005-2019



Chi-squared test & Fisher's exact test
Univariate & multivariable regression

Results

720 Patients



Indication

196
Oncologic
resection

524
Primary
herniorrhaphy

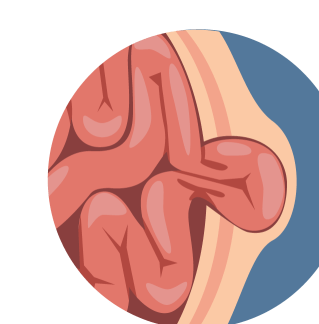
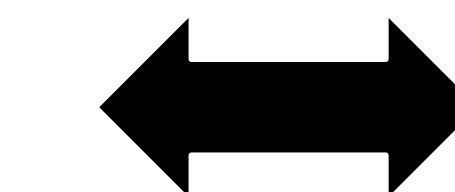
Compared with primary ventral herniorrhaphy



Length of stay

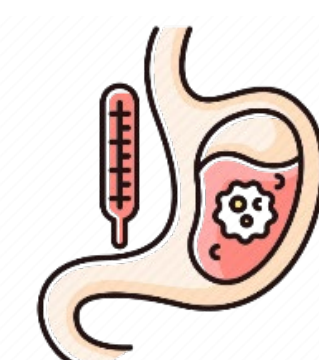
β , 2.57; 95%CI, 1.27 to 3.86, $p<0.001$

No difference in



Hernia recurrence

HR, 0.87; 95%CI, 0.50 to 1.44, $p=0.589$



Surgical complications

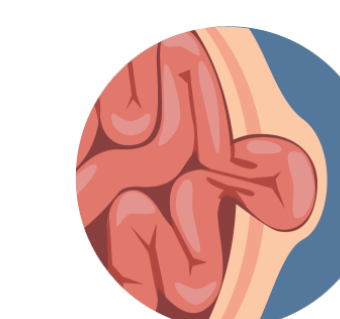
OR, 1.18; 95%CI, 0.76 to 1.81, $p=0.462$



Readmission & Reoperation

OR, 1.68; 95%CI, 0.88 to 3.2, $p=0.133$

Independent predictors of outcomes



Hernia
recurrence

Obesity

x6.5

Bridged repair

X3.5



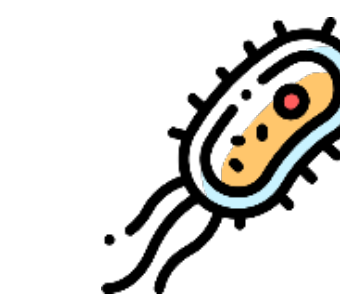
Surgical site
occurrences

Diabetes

X3.7

Radiotherapy

X2.2



Surgical site
infections

Obesity

X3.3

Defect width

X1.9

Mesh length

X2.3

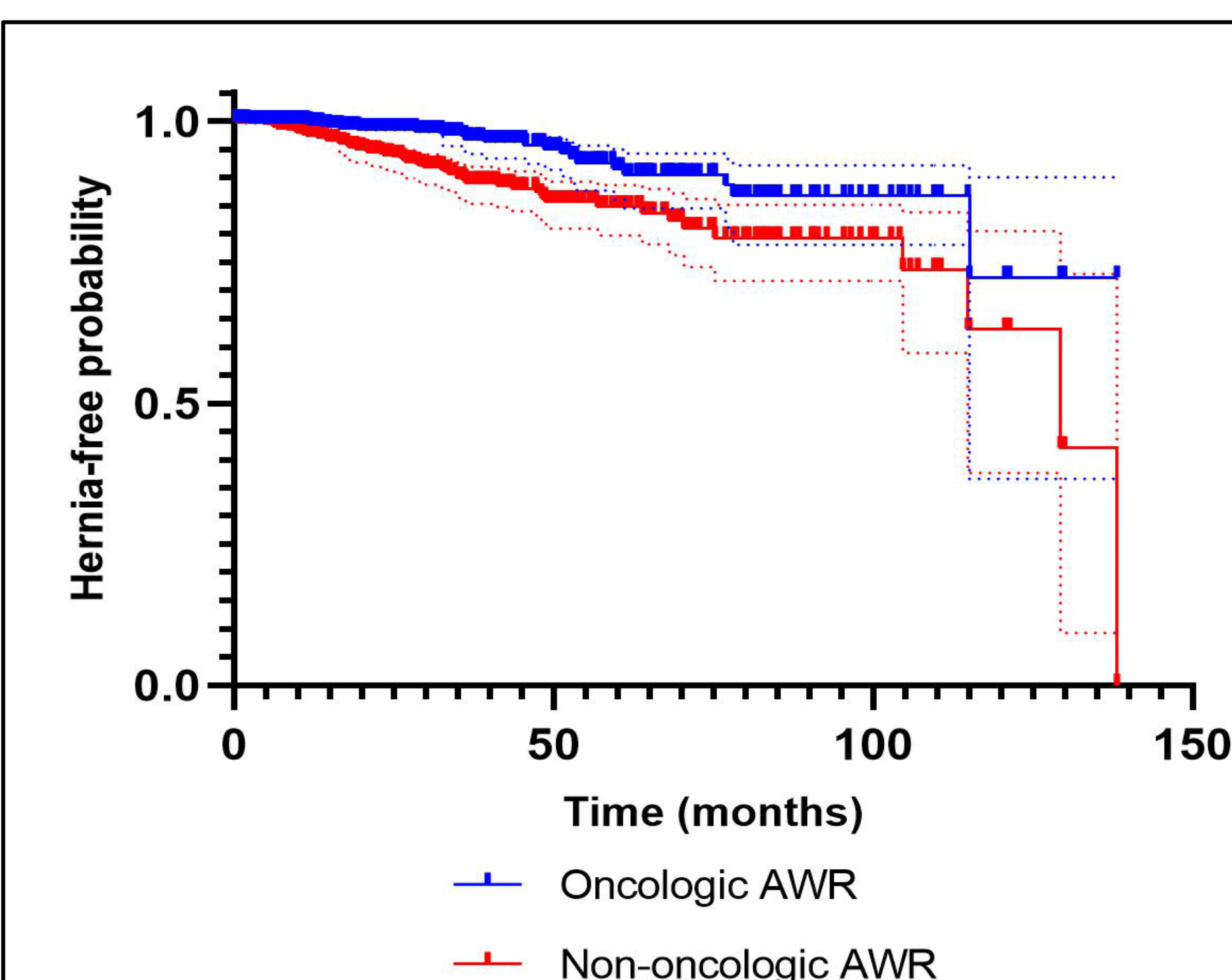
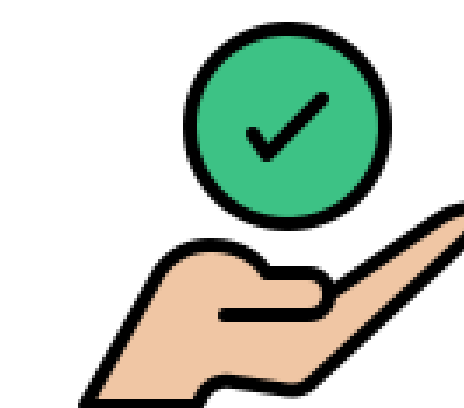


Figure 1. Kaplan–Meier curve for hernia recurrence



Conclusion

- ❑ Oncologic AWR outcomes are comparable primary herniorrhaphy
- ❑ Patient-level factors are associated with higher risk of complications
- ❑ Preoperative risk assessment and optimization are imperative for improving outcomes.

Manuscript



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References

