

# IMPLEMENTATION OF ROBOTIC RIGHT COLECTOMY FOR CANCER - A SINGLE INSTITUTION ONE-YEAR EXPERIENCE

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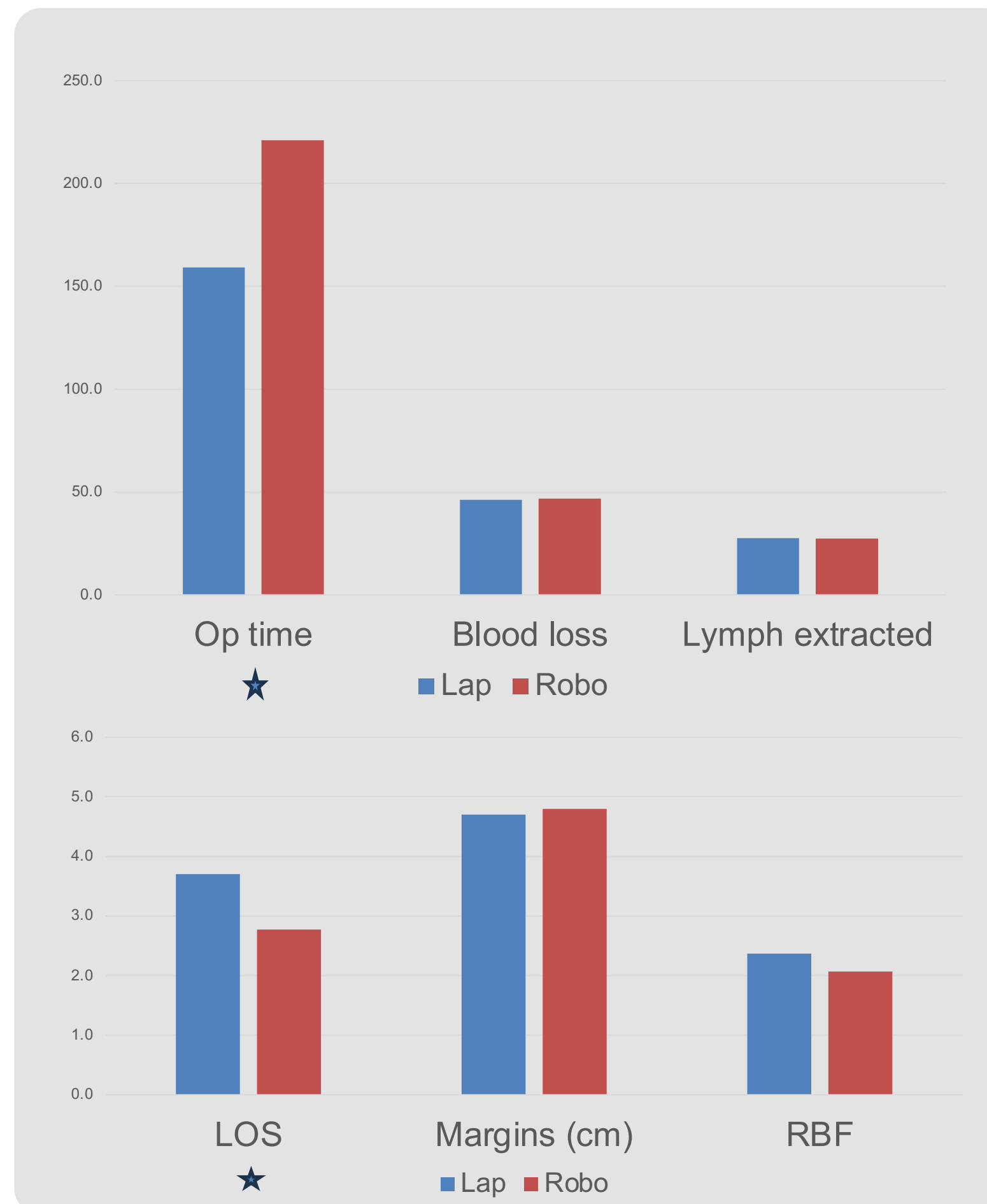
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## Abstract

We examined our perioperative and postoperative outcomes in 59 patients to evaluate quality and performance. Through our first 1 year of cases our robot cases have equivalent or improved perioperative and postoperative outcomes as compared to laparoscopic historical controls.

- Improved outcome in LOS of patients 70+ (MD: -0.9 days; p=0.012)



## Methodology

- Retrospective chart review
- Patient risk was mediated by 4 continuous variables: age, BMI, ASA, and clinical staging
- Risk Ratios (RR) were not calculated for occurrence of Ileus, Anastomotic Leak, SSI, and Small Bowel Obstruction, as one or both the RC and LC groups did not have an observed occurrence.

## Results

- Average operative time in RC was 221 mins versus 159 mins in LC (p=0.0001)
- Average length of stay in RC was 2.77 days versus 3.704 days in LC (p=0.012)
- Overall complication rates for RC were 7.69% versus 8% for LC (p=0.967)
- Overall conversion rates for RC were 16% versus 7% for LC (p=0.309)
- Overall re-op rates for RC were 3.85% versus 4% for LC (p=0.977)
- Overall re-admit rates for RC were 11.54% versus 4% for LC (p=0.316)
- Blood loss (p=0.97), lymph nodes harvested (p=0.97), and margins (cM, p=0.82)
- Average return to bowel function in RC was 2.07 days versus 2.37 days in LC (p=0.14).

## Conclusion

- Our results generally agree with the established larger meta-analyses
- These analyses have shown that RC results in longer operative times and decreases length of stay, both of which our study agrees with (1) (2) (3).
- Also, given the sample we did not have enough complication events to draw stronger conclusions.

## Introduction

Robotic-assisted right colectomies compared to laparoscopic-assisted have been shown to increase hospital costs and operative time, while leading to increased lymph node harvest, lower conversion to open rates, and decreased time to return to bowel function with equivalent complication rates (1-3)

Our institution started performing robotic right colectomy with intracorporeal anastomosis in 2022 in combination with a trackable enhanced recovery (ERAS) pathway.

## Sample Demographics

	Lap	Robo	p
Mean infected lymph nodes	1.3	0.3	0.11
Infected lymph node incidence	27%	14%	0.25
Age	64.0	70.4	0.07
BMI	30.9	29.3	0.46
ASA	2.6	2.9	0.11
Staging (clinical)	2.1	1.5	0.05
Staging (path)	2.2	2.0	0.56

## Acknowledgements

- Lauka, Lelde, et al. "Advantages of robotic right colectomy over laparoscopic right colectomy beyond the learning curve: A systematic review and meta-analysis." *Annals of Laparoscopic and Endoscopic Surgery*
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- Solaini, Leonardo, et al. "Robotic versus laparoscopic right colectomy: An updated systematic review and meta-analysis." *Surgical Endoscopy*