Total Operating Room Time Shorter with Robotic Compared to Laparoscopic Cholecystectomy

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BACKGROUND

- Despite rapid growth in popularity of robotics, laparoscopic cholecystectomy remains standard
- Robotics is associated with longer OR time
- Opponents say increased robotics cost unjustified without clear clinical benefit
- Difficult to compare approaches due to differences in use patterns

METHODS

- Retrospective review of all cholecystectomies at academic medical center from 2017-2020
- Included only elective and outpatient cases
- Excluded cases with planned concurrent procedures
- EMR reviewed for demographics/case details

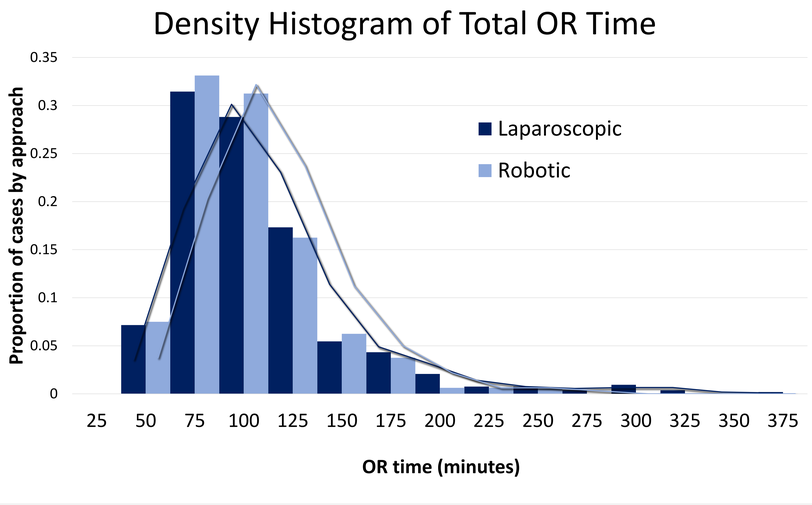
RESULTS

Primary and Secondary Outcomes

Outcomes	Laparoscopic	Robotic	p-value
	N=523	N=160	
Total OR time (minutes)	120.46 (46.13)	113.50 (32.58)	0.038
Converted to Open	13 (2.49%)	1 (0.62%)	0.146
30 Day Readmit	20 (3.82%)	8 (5.00%)	0.512
Length of Stay	0.45 (1.43)	0.71 (2.58)	0.945

- No significant differences in demographics, ASA, or comorbid conditions
- ASA ≥3, conversion to open, and length of stay associated with increase in OR time
- No significant difference in complication rate

RESULTS



CONCLUSIONS

- Operating room time of robotic cholecystectomy is shorter than laparoscopic cholecystectomy
- Safety of both approaches is equivalent
- Further investigation in urgent/emergent cases

Selected References

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