

AB016. SOH21AS074. The impact of body mass index on outcomes in robotic colorectal surgery: a single centre experience

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Background: Obesity is an independent risk factor for post-operative morbidity and mortality in laparoscopic colorectal surgery (LCRS). The technological advantages of robotic colorectal surgery (RCRS) may allow surgeons to overcome the limitations of LCRS in obese patients, but it is largely unknown if this translates to superior outcomes. The aim of this study was to compare perioperative, post-operative and short-term oncological outcomes in obese (BMI ≥ 30.0 kg/m²) and non-obese (BMI < 30 kg/m²) patients.

Methods: Demographic, perioperative, post-operative and short-term oncological outcomes of obese and non-obese patients that underwent RCRS for both benign and malignant colorectal disease were examined and compared retrospectively from a prospectively maintained database.

Results: A total of 107 patients (34 obese, 73 non obese) underwent RCRS over a four-year period. Results overall were favourable. No statistically significant differences in overall rates of complication, 30-day reoperation, 30-day mortality, conversion to open surgery, anastomotic leakage or lengths of inpatient stay were demonstrated. Obese patients had a statistically significant higher rate of post-operative wound infection. Short term oncological outcomes in both groups were favourable.

Conclusions: Our results demonstrate that obese patients undergoing RCRS largely do not experience significantly

worse outcomes than non-obese patients. These results would suggest that RCRS is safe and feasible in obese patients, and may be superior to LCRS in this cohort, where the literature suggests a higher complication rate compared to non-obese patients. The inherent advantages of robotic surgical platforms, such as improved visualisation, dexterity and ergonomics likely contribute to the improved outcomes in this typically highly challenging patient population.

Keywords: Robotic surgery; obesity; body mass index; colorectal surgery; colorectal cancer; laparoscopic surgery

Acknowledgments

Funding: None.

Footnote

Conflicts of Interest: JCC serves as the Editor-in-Chief of *Mesentery and Peritoneum*. CP serves as an unpaid section editor of *Mesentery and Peritoneum*. The other authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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doi: 10.21037/map-21-ab016

Cite this abstract as: Troy A, Hannan E, Corcoran P, Feeney G, Ullah F, Coffey JC, Peirce C. The impact of body mass index on outcomes in robotic colorectal surgery: a single centre experience. *Mesentery Peritoneum* 2021;5:AB016.