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Laparoscopic versus open colorectal cancer surgery in obese patients: A systematic review

Maria Luiza de Souza Pasqualin, Marina Orlandi Junqueira Netto, Fabio Pereira Monteiro Filho, Ana Letícia da Fonseca Sarmento, René Crepaldi Filho
Centro Universitário FMABC, Santo André, Brazil
meirylou_12@hotmail.com

INTRODUCTION: Obesity increases the technical complexity of colorectal oncologic surgery and is associated with higher perioperative complication rates. Although laparoscopy has well-established benefits in the general population, its applicability in obese patients remains debated, particularly in settings where its adoption is still expanding. **METHODS**: A systematic review was conducted according to PRISMA 2020 recommendations. A search was performed in the PubMed/MEDLINE database using descriptors related to obesity, laparoscopic surgery, open surgery, and colorectal surgery. Articles published in the last ten years, available in full text and written in English, including adult obese patients undergoing elective colorectal oncologic surgery comparing laparoscopic and open approaches and reporting perioperative and oncologic outcomes were included. **RESULTS**: A total of 309 records were identified, with 22 articles selected for full-text review and 8 reports included in the final qualitative synthesis, corresponding to 7 independent studies and more than 32,000 patients. The laparoscopic approach was associated with lower intraoperative blood loss, shorter hospital stay, and lower postoperative complication rates, despite longer operative time. Oncologic outcomes, including overall survival and disease-free survival, were similar between approaches. **DISCUSSION**: These findings suggest that laparoscopy is feasible and safe in obese patients despite the increased technical difficulty related to visceral adiposity. In settings where minimally invasive colorectal surgery is still unevenly implemented, evidence of reduced perioperative morbidity without oncologic compromise reinforces its relevance and supports broader adoption. **CONCLUSION**: Laparoscopic colorectal surgery appears to be safe and effective in obese patients, providing consistent perioperative advantages with comparable oncologic outcomes to open surgery, and should be considered the preferred approach when technical expertise is available.

KEYWORDS: Colorectal surgery; Obesity; Laparoscopy; Laparotomy.

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