

# AB048. SOH23ABS\_184. Management strategies for malignant left-sided colonic obstruction: a systematic review and network meta-analysis of randomised control trials and propensity score matching studies

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**Background:** The optimal treatment strategy for left-sided malignant colonic obstruction (LMCO) remains controversial. Emergency colonic resection (ECR) has been the standard of care; however, self-expanding metallic stenting (SEMS) as a bridge to surgery may offer short-term advantages, although oncological concerns exist. Decompressing stoma (DS) may provide a valid alternative, but evidence for this strategy is limited.

**Methods:** Aim: to compare the approaches for management of LMCO and to identify the advantages and disadvantages of various techniques in terms of oncologic efficacy, morbidity, successful minimally invasive surgery (MIS), primary anastomosis, and permanent stoma rates. A systematic review and network meta-analysis (NMA) of randomised controlled trials (RCTs) and propensity score matched (PSM) studies was performed from inception to September 2022. NMAs were conducted using netmeta and Shiny packages for R.

**Results:** A total of 17 articles from 3,480 identified met our predefined inclusion criteria (9 RCTs and 8 PSM trials). Of the 2,646 patients, 1,035 underwent ECR, 1,163 underwent SEMS, and 448 underwent DS. Both SEMS [odds ratio (OR), 2.69; 95% credible interval (CrI): 1.68, 4.32] and DS (OR, 3.37; 95% CrI: 1.04, 10.94) had increased primary anastomosis rates compared with ECR. SEMS (OR 0.46; 95% CrI: 0.26, 0.80) and DS (OR 0.20; 95% CrI: 0.06, 0.61)

were both associated with a significant reduction in the permanent stoma rate when compared with ECR. SEMS facilitated MIS more frequently (OR, 11.03; 95% CrI: 3.77, 32.21) and was associated with lower overall morbidity (OR 0.52; 95% CrI: 0.32, 0.83). There were no differences in the 90-day mortality and overall and disease-free survival rates at 3 and 5 years, respectively.

**Conclusions:** This study provides high-level evidence that a bridge-to-surgery strategy is safe for the management of LMCO, and may facilitate MIS, increase primary anastomosis rates, and reduce permanent stoma rates and postoperative morbidity as compared to ECR.

**Keywords:** Colon cancer; defunctioning stoma; emergency colonic resection (ECR); oncological outcomes; self-expanding metallic stenting (SEMS)

## Acknowledgments

*Funding:* None.

## Footnote

*Conflicts of Interest:* The 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-23-ab048

**Cite this abstract as:** McHugh F, Ryan É, Tan J, Boland P, Whelan M, Neary P, O’Riordan J, Kavanagh D. Management strategies for malignant left-sided colonic obstruction: a systematic review and network meta-analysis of randomised control trials and propensity score matching studies. *Mesentery Peritoneum* 2023;7:AB048.