

# AB029. SOH23ABS\_135. Minimally invasive versus open approaches to pelvic exenteration for pelvic malignancies: a systematic review & meta-analysis

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**Background:** Pelvic exenteration (PE) is a complex multivisceral surgical procedure indicated for locally advanced or recurrent pelvic malignancies. Developments in minimally invasive surgical (MIS) approaches and enhanced peri-operative care have facilitated improved long-term outcomes. However, the optimum approach to PE remains controversial.

**Methods:** A systematic literature search was conducted in accordance with PRISMA guidelines to identify studies comparing MIS (robotic or laparoscopic) approaches for PE versus the open approach. The methodological quality of the included studies was assessed systematically and a meta-analysis was conducted using RevMan.

**Results:** A total of 11 studies were identified, including 2009 patients. The MIS group displayed comparable R0 resections [risk ratio (RR) 1.02, 95% confidence interval (95% CI) 0.98, 1.07,  $P=0.35$ ] and LN Yield (weighted mean difference (WMD) 1.42, 95% CI:  $-0.58, 3.43$ ,  $P=0.16$ ], and although MIS had a trend towards improved towards improved survival and recurrence outcomes, this did not reach statistical significance. MIS was associated with prolonged operating times (WMD 67.93, 95% CI: 4.43, 131.42,  $P<0.00001$ ), however, this correlated with less intra-operative blood loss, and a shorter length of post-operative

stay (WMD  $-3.89$ , 95% CI:  $-6.53, -1.25$ ,  $P<0.00001$ ). Readmission rates were higher with MIS, however, there was no difference in overall or major morbidity, and rates of pelvic sepsis decreased (RR 0.45, 95% CI: 0.21, 0.95,  $P=0.04$ ).

**Conclusions:** MIS approaches are a safe and feasible option for PE, with no differences in survival or recurrence outcomes compared to the open approach. MIS also reduced the length of post-operative stay and decreased blood loss, offset by increased operating time.

**Keywords:** Exenteration; laparoscopic; pelvic; robotic; surgery

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## 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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