



AB021. SOH23ABS_053. The efficacy of prophylactic alpha-blockade in reducing urinary retention post inguinal hernia repair: a systematic review and meta-analysis of randomised control trials

Gavin Calpin¹, Alice O'Neill¹, Matthew Davey¹, Peggy Miller², William Joyce¹

¹Department of Surgery, Galway Clinic, Doughiska, Galway, Ireland;

²Royal College of Surgeons in Ireland, Dublin, Ireland

Background: The incidence of post-operative urinary retention (POUR) following inguinal hernia repair (IHR) is approximately 0.4–22.0%. POUR may lead to patient discomfort and catheter-related complications including urinary tract infection, urethral trauma, bladder overdistension and subsequent permanent bladder dysfunction. We aimed to perform a systematic review and meta-analysis of randomised control trials (RCT) evaluating the impact of administration of alpha-blockade preoperatively to reduce the incidence of acute POUR following IHR.

Methods: A systematic review was performed as per PRISMA guidelines. The incidence of POUR in the alpha-blocker and control groups were expressed as dichotomous outcomes, reported as odds ratios (ORs) expressed with 95% confidence intervals (CIs) following estimation using the Mantel-Haenszel method.

Results: Eight RCTs with a combined total of 918 patients were included. Of these, 53.7% (493/918) received alpha-blockers while 46.3% (425/918) did not. Five studies used tamsulosin, two used prazosin and one used phenoxybenzamine. Overall, the prescription of prophylactic alpha-blockers in the preoperative setting

significantly reduced POUR compared to the control group [7.9% (39/493) *vs.* 21.2% (90/425), OR: 0.31, 95% CI: 0.12–0.80, P=0.020].

Conclusions: Preoperative prescription of alpha-blockers reduced the incidence of POUR following IHR. The next generation of prospective randomised trials may identify which patients should be prescribed this medication prior to surgery.

Keywords: Post-operative; urinary retention; inguinal hernia repair (IHR); alpha-blockade; meta-analysis

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.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

doi: 10.21037/map-23-ab021

Cite this abstract as: Calpin G, O'Neill A, Davey M, Miller P, Joyce W. AB021. SOH23ABS_053. The efficacy of prophylactic alpha-blockade in reducing urinary retention post inguinal hernia repair: a systematic review and meta-analysis of randomised control trials. *Mesentery Peritoneum* 2023;7:AB021.