Factors Associated with Risk of Postoperative Urinary Retention in Veterans Undergoing Inguinal Hernia Repair Surgery

Jay Ramsay, MD; Rene Tellez, MD; Bunchhin Huy; Justine Chinn, MD; Cyrus Farzaneh; Ashton Christian; Hubert Kim, MD; Brian Smith, MD; Marcelo Hinojosa, MD

Department of Surgery, University of California, Irvine

INTRODUCTION

The risk of postoperative urinary retention (POUR) after inguinal hernia repair is 2 - 22%. The most recent of these studies was published in 2006. With ever-changing surgical practices, these studies are becoming increasingly outdated. The objective of this study is to provide recent data on overall risk and risk factors for POUR from a large, homogenous group of veterans.

METHODS

We preformed a retrospective review of patients who underwent inguinal herniorrhaphy between 2012 and 2019. The operating time, age, robotic vs laparoscopic approach, use of intraoperative foley, and history of benign prostatic hyperplasia (BPH) or lower urinary tract symptoms (LUTS) were analyzed. The analysis was performed using pairwise comparisons using t-test with Benjamini & Hochberg adjustment method and Pearson's Chi-square test with Yate's continuity correction.

RESULTS

- Out of 473 male patients who underwent inguinal hernia repair, 39 (8.2%) experience postoperative urinary retention requiring foley catheterization.
- Those with a history of BPH/LUTS had a 18.6% risk of POUR whereas those without BPH/LUTS had a 4.1% (p=5.02 E-7).
- When controlling for BPH/LUTS, the average age of the men who experience POUR was 66.4 years vs 55.2 in those who did not experience POUR (p=0.02).
- The average BMI of those who experienced POUR was 25.6 vs 27.1 in those who did not experience POUR (p=0.03).
- Operation time was similar between those who experienced POUR compared to those who did not experience POUR (77.7 minutes vs 82.7 minutes P=0.27).
- There was no difference in the rate of POUR when comparing the use of intraoperative foley for patients with BPH/LUTS (RR0.97).

CONCLUSION

We found that the overall risk of POUR was was similar to previous studies. Similar to previous studies, there was no association with operation time or surgical approach but a positive association with BPH/LUTS. Interestingly, the use of intraoperative foleys did not prevent urinary retention. Finally, we found that those with high BMI had a lower risk of POUR, although this could be due to confounding factors.