

Postoperative Outcomes Following Intraoperative Foley Catheter Insertion During Robotic Inguinal Hernia

Angela A. Colback, MD; Alyssa Greenwood Francis, MD, MPH; Victoria Ende, MD; Julie Hong, MD; Litong Du, MD, PhD
Department of Surgery, New York-Presbyterian Queens, Flushing, NY

Background

The **objective** of this study was to evaluate whether **intraoperative Foley catheter (FC)** insertion during robotic inguinal hernia repair (IHR) is associated with **increased rates of postoperative urinary retention (POUR)**

We hypothesized that **intraoperative FC** use during these cases **contributes to higher rates** of these **postoperative complications**

Methods

Type of study: Retrospective chart review of single hospital system data

Inclusion criteria

- Adult patients (≥ 18 years)
- Robotic inguinal hernia repair
- Between January to December 2025

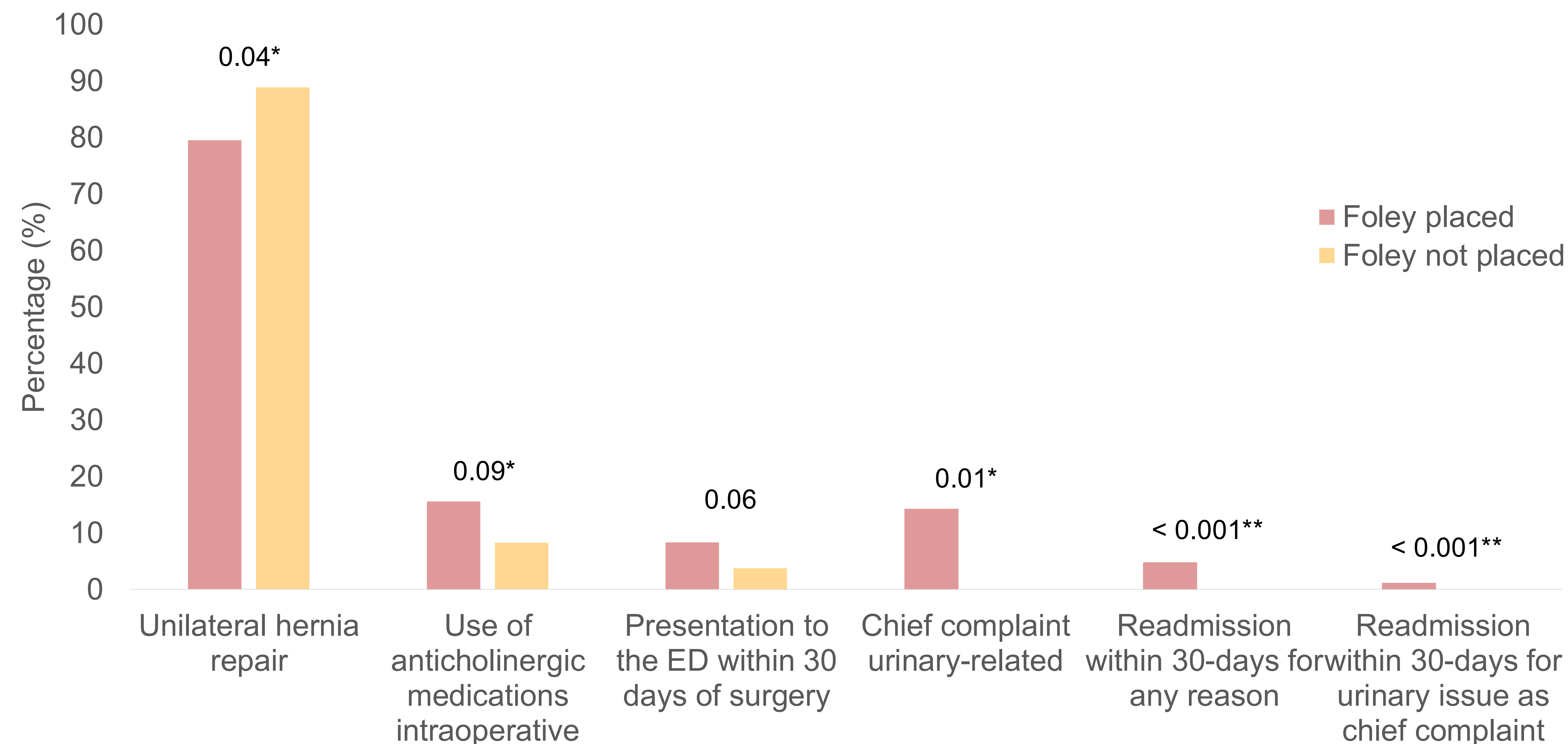
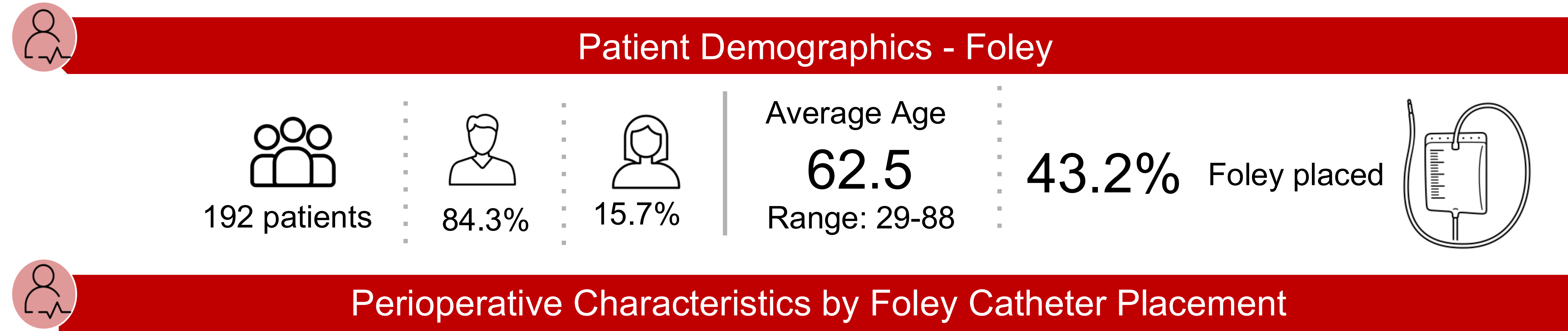
Exclusion criteria

- Laparoscopic repair
- Emergency surgery
- Left the operating room with catheter in place

Primary outcome

- POUR defined as postoperative need for straight catheterization or return visit to the ED for failure to void

Results



Summary

192 patients underwent robotic inguinal hernia repair (IHR); **43.3% received intraoperative Foley catheter (FC)** and **56.7% did not**

One patient presented with urinary retention and dysuria, requiring admission for treatment of a **urinary tract infection**

The affected patient had **intraoperative FC placement and anticholinergic medication exposure**

Conclusions/Further Study

Postoperative urinary complications were **rare** following robotic IHR

The **only observed urinary complication** occurred in a patient with Foley catheter placement

Further study with larger multicentric cohorts is warranted

References

- [1] Solaini L, Cavaliere D, Avanzolini A, Rocco G, Ercolani G. Robotic versus laparoscopic inguinal hernia repair: an updated systematic review and meta-analysis. J Robot Surg. 2022 Aug;16(4):775-781. doi: 10.1007/s11701-021-01312-6. Epub 2021 Oct 5. PMID: 34609697; PMCID: PMC9314304.
- [2] Broderick, R.C., Li, J.Z., Blitzer, R.R. et al. A steady stream of knowledge: decreased urinary retention after implementation of ERAS protocols in ambulatory minimally invasive inguinal hernia repair. Surg Endosc 36, 6742–6750 (2022). <https://doi.org/10.1007/s00464-021-08950-9>
- [3] Fafaj A, Lo Menzo E, Alaedeen D, et al. Effect of Intraoperative Urinary Catheter Use on Postoperative Urinary Retention After Laparoscopic Inguinal Hernia Repair: A Randomized Clinical Trial. JAMA Surg. 2022;157(8):667–674. doi:10.1001/jamasurg.2022.2205
- [4] Crain N, Tejirian T. Impact of Intraoperative Foley Catheters on Postoperative Urinary Retention after Inguinal Hernia Surgery. Am Surg. 2019 Oct 1;85(10):1099-1103. PMID: 31657302.