

Bladder Care Following Benign Non-Hysterectomy Gynecological Laparoscopy: A Randomized Clinical Trial

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Abstract

Abstract Objective: To compare rates of urinary retention and postoperative urinary tract infection between women with immediate versus delayed removal of indwelling catheter following benign non-hysterectomy gynecological laparoscopic surgery. **Design:** This randomized clinical trial was conducted between February 2012 and December 2019, with follow-up to six weeks, in two university-affiliated hospitals in Sydney, Australia. **Population:** Study participants were 693 women over 18 years of age, undergoing non-hysterectomy laparoscopy for benign gynecological conditions, excluding pelvic floor or concomitant bowel surgery. **Methods:** 355 participants were randomized to immediate, and 338 to delayed removal of urinary catheter. **Main Outcome Measures:** The co-primary outcomes were urinary retention (assessed by trial of void and need to re-catheterize) and urinary tract infection. Secondary outcomes included readmission, analgesia requirements, duration of hospitalization and validated bladder function questionnaires. **Results:** Urinary retention for participants in the immediate removal group was statistically higher at 8.2% (95% CI: 5.7% to 11.4%) vs. 4.2% (95% CI: 2.7% to 7.2%) in the delayed removal group ($p=.03$). There was no statistically significant difference in the rates of urinary tract infection between the groups at 7.2% (95% CI: 4.7% to 10.8%) in the delayed group vs. 4.7% (95% CI: 2.8% to 7.8%) in the immediate group. **Conclusions:** Rates of urinary retention and urinary tract infection following non-hysterectomy benign gynecological laparoscopy are low. There is a small increased risk of urinary retention with immediate compared with delayed removal of urinary catheter. These findings can be used to counsel patients regarding postoperative bladder care.

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