

Postpartum Urinary Retention: Impact of Delivery Methods and Anesthesia

Background:

Postpartum urinary retention (PUR) is a recognized but often underdiagnosed condition that can significantly affect maternal recovery and contribute to prolonged hospitalization. PUR can lead to discomfort, complications such as UTIs and increased risk of other bladder-related issues.

Aims:

The study aims to assess the incidence of PUR in postpartum women and evaluate the relationship between factors such as prior UTIs, catheterization and assisted delivery methods.

Study Methods:

A retrospective audit was conducted over three months, to review delivery records of tertiary hospital. The primary focus of the study was to identify the incidence of PUR, defined as delayed first voiding, more than six hours postpartum or the requirement for catheterization.

Results:

The cohort included over 150 postpartum women, aged between 20 and 39 years (mean: 31 years). Obesity was present in 35 % of the cohort, and prior UTI history was reported in less than 5% of cases. The overall incidence of PUR was 20% with notably higher prevalence among women who underwent LSCS and vacuum assisted deliveries. Catheterization was used in 25% of cases, especially among those who had epidural anaesthesia or vacuum assisted delivery.

Prior UTI history did not significantly correlate with an increased risk of PUR. Regarding anaesthesia, epidural anaesthesia, used in 40% of vaginal deliveries, was linked to higher PUR rates compared to spinal anaesthesia.

Vacuum assisted deliveries showed highest rate of delayed voiding (30%), frequently requiring temporary catheterization.

Discussion:

The results of this study suggest that PUR is most commonly associated with certain delivery methods and anaesthesia choices. The higher incidence of PUR in women who received epidural anaesthesia or underwent vacuum assisted deliveries indicates that these factors may significantly impact the ability to void postpartum. Epidural anaesthesia, in particular, appears to be a critical factor influencing bladder function, as it can interfere with bladder sensation and voiding reflexes, leading to delayed or impaired voiding.

Interestingly, prior UTI history did not show a significant relationship to PUR incidence in this cohort. This suggests that while UTIs may pose other health risks, they do not independently contribute to postpartum urinary retention.

Furthermore, the study revealed that catheterization, often used during epidural anaesthesia or vacuum assisted deliveries, does not independently increase the risk of PUR.

Conclusion:

This study underscores the importance of delivery related factors, particularly anaesthesia type and the use of vacuum assisted deliveries, in the development of postpartum urinary retention. The lack of significant correlation between prior UTI history and PUR suggests that other factors should be considered when assessing risk. The findings advocate for improved monitoring protocols, careful use of catheters, and individualized patient care. Further research should focus on preventative strategies, such as early ambulation and targeted bladder management interventions, to reduce the incidence of PUR and improve maternal recovery outcomes.