

PREDICTING TIME TO RECOVERY OF URINARY RETENTION

Hypothesis / aims of study

Urinary retention is a frequently occurring complication of hospitalized patients. While patients under urologic care are under close observation for voiding difficulties, equal care cannot be expected of patients receiving treatment for other morbidities. Despite the variety of causes, usually little else can be done besides immediate decompression of the bladder. However, recovery time from bladder dysfunction is often unpredictable, and no literature describes how long a patient may expect to be catheterized. The current study attempts to identify the requisite period of catheterization following bladder distention in these patients

Study design, materials and methods

Patients were enrolled once consultation for urinary retention was reported. Retention amount, patient age, recent surgical history, presence of hypertension, diabetes, CVA and spinal injury history were noted. Prostate volumes were measured for male patients, and cases with prostates larger than 30g were excluded. Patients were catheterized and the managing department was instructed to keep the catheter open, allowing unobstructed flow. Every half week (3 to 4 days) patients were given a voiding trial. A voiding trial consisted of infusing the catheter with 300ml of saline before removal and performing a uroflowmetry and residual voiding measurement by ultrasonography. Successful voiding was determined as a residual urine of less than 100ml. Failing the voiding trial meant recatheterization and attempting a voiding trial at the next period. Logistic regression models were created and compared to predict recovery from retention within 14 days

Results

126 patients were enrolled from March 2014 to July 2015. Logistic regression models to predict recovery within 14 days was dependent upon age (below 70, OR 4.11 \pm 2.18, p=0.008), retention volume (over 450, OR 0.22 \pm 0.14, p=0.017; over 600, OR 0.26 \pm 0.15, p=0.024), recent operation (vs. spontaneous, OR 4.38 \pm 2.26, p=0.004), and sex (females were less likely with OR 0.11 \pm 0.06, p<0.001) (p<0.001, ROC AUC=0.83)

Concluding message

The study generally disregards the cause of retention, attempting to present a general outline of when to expect recovery from acute urinary retention, unrelated to urological interventions. The results suggest that old age, female sex, and spontaneous occurrence are risks of delayed recovery. Furthermore, retention amounts incrementally at 450 and 600ml increase risk of delayed recovery.

Disclosures

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