

URINARY TRACT INFECTION FREQUENCY CORRELATES WITH BOWEL PROBLEMS AMONG CATHETER USERS

Hypothesis / aims of study

Neurogenic disorders that cause bladder dysfunction can also cause bowel problems. Unfortunately, not much research has been done investigating the relationship between neurogenic bladder and bowel. This survey investigated the correlation between bowel problems and the frequency of urinary tract infections (UTIs) in a group of experienced catheter users with bladder dysfunction. Also, if the correlation was dependent on gender.

Study design, materials and methods

An electronic survey containing questions about background, catheter use, complications and bowel problems was sent to a mixed group of 952 users of intermittent urinary catheters.

Results

The response rate was 28%, i.e. 262 patients responded to the questionnaire, and the majority of the patients (60%) had a neurogenic bladder/bowel due to spinal cord injury (SCI), multiple sclerosis (MS) or spina bifida (SB). The remaining 40% were practicing catheterization due to post-surgical conditions, enlarged prostate and other bladder dysfunctions. It was a majority (64%) of male respondents. Bowel problems were reported from 71% and seemed more common among women (78%) than among men (67%). Women also seemed to suffer from bowel problems more frequently than men with 26% having daily and 22% having weekly problems as compared to 15% and 16% among male patients (Figure 1).

Among all patients a mean of 2.1 UTIs/year was reported and infections seemed more common among women (2.2 UTIs/year) than among men (1.8 UTIs/year) with a share of patients with ≥ 2 UTIs/year of 33% among women and 21% among men.

There was a general significant correlation between bowel problems and two or more UTIs/year ($p = 0.010$). The correlation persisted in the female ($p < 0.001$) but not in the male sub-group (Figure 1).

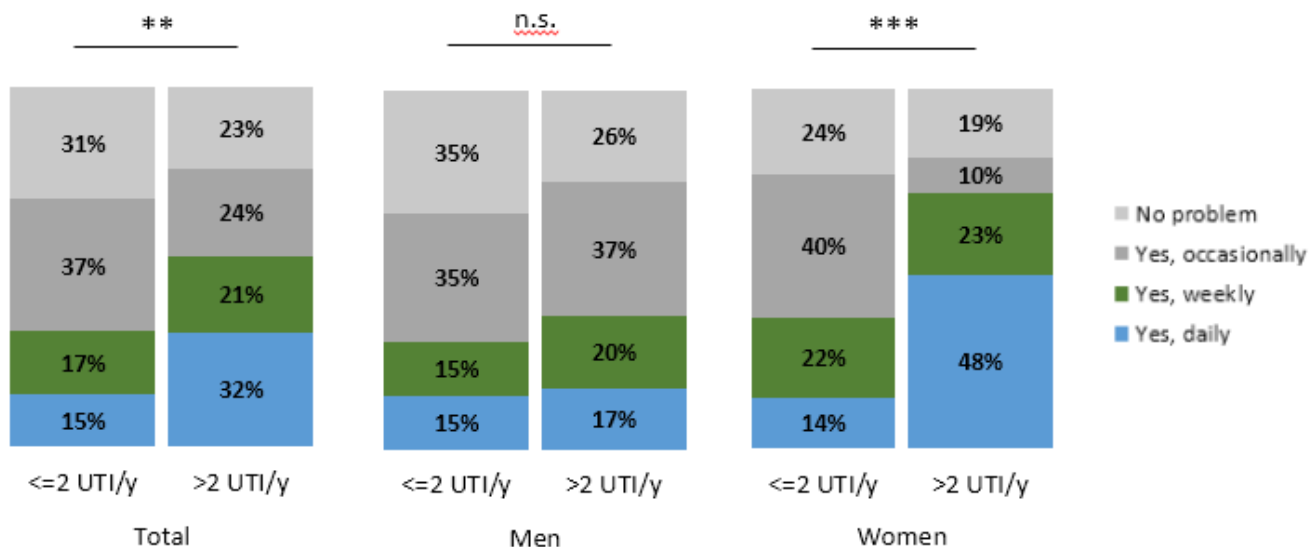


Figure 1 Incidence of bowel problems divided by number of urinary tract infections (UTI) during the last year, and gender.

Interpretation of results

The interaction between bowel and bladder dysfunction is not yet fully understood. We show that bowel problems are frequent among users of intermittent catheterization. This is supported by Cameron et al 2014 who show that bladder symptoms of incontinence and lower urinary tract symptoms correlated directly with bowel symptom score (1).

To our knowledge it has not been shown before that frequency of UTIs correlates to bowel problems. The correlation may be due to the risk of bacterial contamination because of problems maintaining personal hygiene when the patient has bowel problems (2). This is also supported by the fact that the correlation persisted in the female group but not the male group, as the female anatomy augments the risk for contamination from bowel to bladder and thus the need for personal hygiene. Also, it has been shown that transanal irrigation (TAI) reduces the risk for UTI (3) with the proposed mechanism that removal of fecal impaction promotes bladder emptying. Further studies are needed to understand and prevent the correlation between bowel problems and UTI's.

Concluding message

Bowel problems are common in catheter users and appear to be correlated to the frequency of UTIs. This seems particularly true for women with many UTIs signifying how important it is to address the management of both bladder and bowel dysfunction.

References

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Disclosures

Funding: Wellspect HealthCare (medical device manufacturer) employees who receive both financial and material support from the company. No specific compensation was received related to the current work. **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** An invitation was sent via e-mail to registered members of the TellUs-database. No informed consent was obtained as responses were confidential and anonymous and no interventions were tested or evaluated. All participation in the survey was voluntary and permission for contacting respondents for surveys was given at the time of registration in the TellUS-database. Once the survey was closed no remaining link between respondent and answer were present and all data was anonymous during analysis. **Helsinki:** Yes **Informed Consent:** No