Urinary Symptoms and their Effect on Quality of Life in Women Living with HIV: A Cross-Sectional Study

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Hypothesis/Aims of Study

- Lower urinary tract symptoms are common in women, with 25-45% of women reporting urinary incontinence (1)
- Data specific to women with HIV is lacking
- A survey in men demonstrated higher rate of urinary symptoms and quality of life impact in men living with HIV.(2)
- Objectives:
  1. To determine prevalence and quality of life impact of urinary symptoms in women living with HIV
  2. To identify demographic characteristics associated with urinary symptoms in this population

Study Design, Materials and Methods

- Cross-sectional urinary questionnaire included in a multicenter national prospective interventional study of human papillomavirus (HPV) vaccination in HIV positive women
- Questionnaires: 1. Urinary Distress Inventory (UDI-6), 2. Urinary Impact Questionnaire (UIQ-7)
- Descriptive statistics are presented as N (%), or median and interquartile range (IQR)
- Women with UDI-6 score ≥ 25 (cut-off correlates with care seeking)(3) were compared to their counterparts on multiple demographic factors
- Wilcoxon rank-sum, chi-square or Fisher's exact tests were used as appropriate

Results

- To date, 82 (100% of approached participants) out of 207 women in the study have completed urinary questionnaires
- 72 were documented to be on combination antiretroviral therapy (cART) (missing data for 10)

Table 1: Demographic Characteristics by UDI-6 Score

Characteristics		UDI-6 ≥ 25 N = 23	UDI-6 < 25 N = 59	p values
Age		49 (40-52)	45 (38-50)	0.16
Body Mass Index (10 missing values)		32 (24-34)	28 (22-34)	0.20
Race	- White - Black - Aboriginal - Other	9 (39.1) 10 (43.5) 2 (8.7) 2 (8.7)	21 (35.6) 27 (45.8) 6 (10.2) 5 (8.5)	0.99
Parity		3 (2-3)	2 (2-3)	0.31
Menopausal status (1 missing value)	- Pre-menopausal - Peri-menopausal - Post-menopausal	9 (39.1) 4 (17.4) 9 (39.1)	41 (69.5) 4 (6.8) 14 (23.7)	0.04
Time since HIV diagnosis (years)		17 (14-19)	14 (10-19)	0.09
CD4 count		660 (440-800)	569 (459-690)	0.10
Suppressed viral load		17 (73.9)	40 (67.8)	0.59
UIQ-7		19 (0-48)	0 (0-0)	<0.0001

- **Median UDI-6 score: 8.3 (IQR: 0-25, range 0-75)**
  - Most commonly reported symptom: stress urinary incontinence (33 women, 40.2%)
    - 15 women (18.2%) reported moderate to severe bother from stress urinary incontinence
- **Only 27 women (32.9%) had a UIQ-7 score greater than 0**
- **Only demographic factor significantly associated with high UDI-6 score was menopausal status**
  - Pre-menopausal women were significantly less likely to have a UDI-6 score ≥ 25 than peri and post-menopausal women (OR 0.28, 95% CI 0.10-0.77)

Interpretation of results

- Although many of the women living with HIV had urinary symptoms, quality of life was not reported as significantly affected in most cases. Stress urinary incontinence was most commonly reported. Urinary symptoms were associated with menopausal status.
- None of the severity factors of HIV (including CD4 count, unsuppressed viral load, HIV related conditions, and AIDS defining illnesses) were associated with urinary symptoms in our small sample. However, this was a cohort of women who were generally in good health with absolute CD4 counts > 500 and 69.5% virologically suppressed.

Concluding message

Urinary symptoms were common, but quality of life was not significantly affected in this small sample of women living with HIV. Large comparative studies are needed to determine whether HIV is a risk factor for bothersome urinary symptoms in women.

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