

URINARY CATHETERIZATION MAY NOT NEGATIVELY IMPACT QUALITY OF LIFE IN MULTIPLE SCLEROSIS PATIENTS

Hypothesis / aims of study:

Multiple sclerosis (MS) healthcare providers (HCP) have undergone considerable educational efforts regarding the importance of evaluating and treating pelvic floor disorders, specifically, urinary dysfunction. However, limited data are available to determine the impact of urinary dysfunction, especially catheterization, on patient quality of life (QoL). The objective of this study was to describe the use of urinary catheterization among MS patients and to determine the differences between those who report positive versus negative impact of this treatment on QoL.

Study design, materials and methods:

The Consortium of Multiple Sclerosis Centers (www.ms-care.org) administers the North American Research Committee of Multiple Sclerosis (NARCOMS) Registry. The NARCOMS Registry captures self-reported demographic and clinical information from patients with MS at enrollment and semi-annually thereafter. The registry is the largest self-report database of patients with MS worldwide. In the Fall of 2010, the authors created a short 2-page questionnaire for inclusion in the Fall 2010 questionnaire regarding pelvic floor disorders. Patients were queried on: 1) bother from urinary/bladder, bowel, or sexual problems; 2) if they had been evaluated by a HCP about pelvic floor issues in the last 12 months; and 3) satisfaction with the evaluation and treatment received on a 5-point Likert scale. Patients were also asked if their quality-of-life (QoL) had changed with these treatments (7-point Likert scale). The Patient Determined Disease Steps (PDDS), a validated measure of disability based on self-report, was also administered as a subjective measure of MS severity. Bladder disability and spasticity scores were also obtained (5 point Likert scale) with 3 referring to moderate disability on both scores. Data analysis used SAS version 9.1 (SAS Institute Inc., Cary, N.C.) and descriptive statistics, chi-square tests for frequency data and calculation of correlation coefficients and 95% confidence intervals were constructed as appropriate.

Results:

Of the 14,268 surveys mailed, 9397 (66%) responses were returned. Respondents were primarily white (89%), women (77%), with average age of 55 (SD 10.5) years. Respondents with current urine leakage were 5143 (54.7%), of which 1201 reported current catheter use (23.4%). The types of catheters used (intermittent self-catheterization, foley catheter (indwelling), suprapubic), did not differ significantly (Table 1). Of the current catheter users who responded to QoL question (n=1193), 304 (25.3%) respondents reported catheterization negatively impacting QoL, 629 (52.4%) reported a positive impact on QoL, and 260 (21.8%) reported neutral QoL. Intermittent catheterization was the most commonly reported catheterization method in 727 patients (60.9%). Of respondents reporting positive QoL, 387 (61.5%) used intermittent catheterization as compared to 192 (63.2%) patients who reported a negative QoL (p=0.631). The number of respondents with PDDS score >3 in each of these two groups were also not found to be significantly different (p=0.025); likewise, those with bladder score >3 and spasticity >3 did not show significant difference between the two groups (p=0.002 and p=0.003, respectively).

Interpretation of results:

Our data on the incidence of urinary catheterization among patients with MS is unique. This is the first time that a large population of MS patients has been queried regarding their current use of urinary catheterization. Our findings demonstrate that not only do 12.8% of MS patients catheterize at any given time, but also that the majority of patients who catheterize remain 'very/completely' satisfied with their care. This finding contradicts common beliefs that many patients will refuse or dislike catheterization. In contrast, it appears that patients who require urinary catheterization for urinary retention find this treatment helpful and willingly comply. The significant correlation of increased catheterization with increased PDDS score supports our hypothesis that bladder dysfunction is more common in patients with increased disability. Additionally, the use of urinary catheterization does not appear to negatively impact quality of life for the majority of MS patients who utilize this therapy.

Concluding message:

Although the use of catheterization methods has long been assumed to detrimentally impact QoL, our findings suggest the contrary to be true for the majority of patients. Although some patients do report a negative impact on QoL, the majority of patients report a positive or no impact on QoL due to catheterization. Patients with increased disability are not preferentially negatively or positively impacted by catheterizing, while patients with bladder symptoms and spasticity are more likely to report a negative impact on QoL. Future studies should examine methods to improve QoL among those patients negatively impacted by catheter use.

Table 1. Forms of catheterization used and impact on quality of life.

Group (N)	Reported POSITIVE impact on QoL (n=629)	Reported NO CHANGE on QoL (n=260)	Reported NEGATIVE impact on QoL (n=304)	p value *
Patients that Catheterize (1193)				
Intermittent (727)	387 (61.5%)	148 (56.9%)	192 (63.2%)	0.631
Indwelling (169)	87 (13.8%)	42 (16.1%)	40 (13.2%)	0.779
Suprapubic (169)	101 (16.1%)	34 (13.1%)	34 (11.2%)	0.047

Unsure (128)	54 (8.6%)	36 (13.8%)	38 (12.5%)	0.060
PDDS score ≥ 3	562 (89.3%)	218 (83.8%)	256 (84.2%)	0.025
Bladder score ≥ 3	400 (63.6%)	141 (54.2%)	225 (74.0%)	0.002
Spasticity score ≥ 3	298 (47.4%)	110 (42.3%)	176 (57.9%)	0.003

- p value for comparison between POSITIVE versus NEGATIVE columns
- QoL Quality of Life

Disclosures

Funding: departmental funds only **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** University Hospitals Institutional Review Board **Helsinki:** Yes **Informed Consent:** Yes