



Self-Reported Bladder and Bowel Symptoms in Multiple Sclerosis Patients



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BACKGROUND

Nearly 75% of patients with multiple sclerosis (MS) experience lower urinary tract (LUT) symptoms (LUTS). LUTS in patients with MS vary widely in type and severity, symptoms may be present early in the disease course and may even predate the diagnosis of MS. Some patients are spared early symptoms, however, as MS progresses, bladder dysfunction affects the majority of patients.

OBJECTIVE

- To phenotype MS patients with LUTS and correlate specific constellation of symptoms, as well as symptom severity with functional status.

HYPOTHESIS

That irritative LUTS occur across all ranges of age, durations of disease, and disability scores with moderate correlation and obstructive symptoms occur in older patients, patients with longer duration of disease, and those with higher disability scores with strong correlation.

INCLUSION CRITERIA

Patients with MS and LUTS, recruited from Urology and Neurology practices at University of Pennsylvania

METHODS USED

- Degree of functional disability assessed using the Expanded Disability Status Scale (EDSS) and the Functional System Scale (FSS)
- Functional System score of the EDSS compared to Urinary Distress Inventory (UDI), MESA Urinary Questionnaire, American Urological Association Symptom Score (AUA-SS), Short Form Health Survey (SF-36) to assess voiding symptoms, symptom severity and bother
- Relationship between bowel symptoms as measured by the International Consultation on Incontinence Questionnaire Bowel (ICIQ-B) and disability score and functional status

SUMMARY OF RESULTS

DEMOGRAPHICS: A total of 181 patients were pre-screened for eligibility, 40 patients qualified for inclusion of which 40 have been enrollment to date (FIGURES 1 and 2). Complete data has been collected on 37 participants. Average age of participants was 47 average age and the average years with MS Diagnosis was 14.1.

FIGURE 1
Enrollment to Date
(N=40)

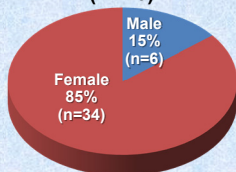
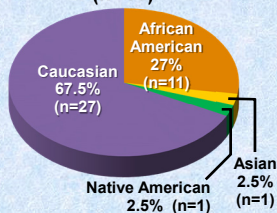
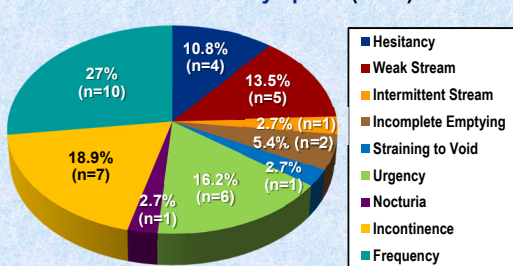


FIGURE 2
Demographics
(n=40)



The average length of time participants had suffered from LUT symptoms was 8.1 years. FIGURE 3 details the first LUT symptom experienced by these patients. Irritative symptoms were seen in 64.8% of patients and obstructive in 35.2%. Frequency, an OAB/irritative LUT, was the first symptom experienced by 27% of participants followed by incontinence (18.9%) and urgency (16.2%).

FIGURE 3
First Bladder Symptom (n=37)



Based on the UDI, leakage related to urgency was reported in 67.5% of patients (TABLE 1). Average AUA-SS was 13 and 78% were dissatisfied with symptoms indicating the burden LUT symptoms have on this neurologic population.

TABLE 1
Urogenital Distress Inventory (UDI) (n=37)

Question (storage)	Counts / Frequency
Frequent urination?	Yes - 70%, N=26 No - 30%, N=11
Feelings of urgency?	Yes - 73%, N=27 No - 27%, N=10
Leakage related to urgency?	Yes - 67.5%, N=25 No - 32.5%, N=12
Leakage related to physical activity?	Yes - 46%, N=17 No - 54%, N=20
Nighttime urination	Yes - 73%, N=27 No - 27%, N=10

Question (emptying)	Counts / Frequency
Difficulty emptying?	Yes - 48.6%, N=18 No - 51.4%, N=19
Incomplete emptying?	Yes - 54%, N=20 No - 46%, N=17

TABLE 2 - International Consultation on Incontinence- Bowel (ICIB) 25 item (n=37)

Question	Counts / Frequency
Are you able to control accidental loss of formed or solid stool from your rectum?	Never - 0% Rarely - 0% Some of the time - 10.8%, N=4 Most of the time - 21.6%, N=8 Always - 67.6%, N=25
Is a bowel accident constantly on your mind?	Never - 43.2%, N=16 Rarely - 32.4%, N=12 Some of the time - 8.1%, N=3 Most of the time - 8.1%, N=3 Always - 8.1%, N=3
Do your bowels cause you to know where the toilets are?	Never - 45.9%, N=17 Rarely - 21.6%, N=8 Some of the time - 10.8%, N=4 Most of the time - 10.8%, N=4 Always - 10.8%, N=4

Bowel symptoms were also of interest as these patients did not report fecal incontinence (TABLE 2), but it was not surprising to see that many reported problems with stool evacuation, specifically "straining at stool" and digital manipulation (FIGURES 4 & 5).

FIGURE 4
International Consultation on Incontinence - Bowel (ICIB) 25 item
Straining During Bowel Movement (n=37)

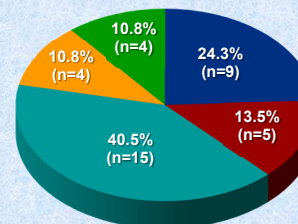
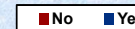
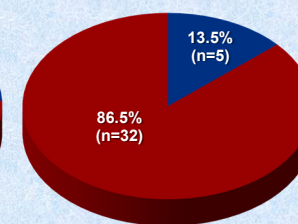


FIGURE 5
International Consultation on Incontinence - Bowel (ICIB) 25 item
Bowel Movement Requiring Digital Aid (n=37)



FUNCTIONAL ABILITY:

General health was reported as very good in 35.2% and good/fair in 43.2%. But as relates to functional ability: 48% were unable to participate in moderate activity, 43% unable to climb one flight of stairs, and 30% were unable to bathe and dress themselves.

CONCLUSION

Irritative and obstructive LUTS were common among patients with MS but did not discreetly fall into either category but rather a spectrum with varying degrees of each.

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DISCLOSURES

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