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RELATIVE BOTHER AND SEVERITY OF URGE, STRESS, AND MIXED URINARY INCONTINENCE

Hypothesis / aims of study

Based on population-based surveys, it is commonly stated that urge urinary incontinence (UUI) is more bothersome than stress urinary incontinence (SUI) in women. This differential bother has led some to recommend that the UUI component of mixed urinary incontinence (MUI) be treated first. However, it has not been shown that these population-based observations, which include data from many women who do not seek treatment, apply to a clinical population of incontinent women. The aim of this analysis of baseline data from a large clinical trial was to assess the relative severity, impact and bother of incontinence subtypes.

Study design, materials and methods

We assessed at baseline 774 women (19 to 85 years old) who presented for treatment of incontinence in an ethical committee approved, randomised controlled trial. Incontinence subtypes were categorized on the basis both of symptoms and of conditions. Symptom assignment was based on responses to the Stress/Urge Incontinence Questionnaire (S/UIQ), a validated 2-question instrument that asks patients to recall the number of SUI and UUI episodes experienced during the preceding week. 421 of these women were randomly selected to undergo urodynamic testing. Urodynamic stress incontinence (USI) and detrusor overactivity (DO) were defined according to ICS standards. Condition diagnoses were defined using an algorithm that considered symptoms from a 1-week bladder diary, signs, and urodynamic observations with complete data to allow condition assignment available for 296 women. Symptom and condition subtypes included pure SUI, stress predominant mixed urinary incontinence (SPMUI), balanced MUI (BMUI), urge predominant MUI (UPMUI), and pure UUI. We compared incontinence episode frequency (IEF) from the S/UIQ and an electronic diary, the scores from the validated International Consultation on Incontinence Short Form Quality of Life (ICIQ-SF) and the Incontinence Quality of Life (I-QOL) questionnaires, and ratings from the validated Patient Global Impression of Bother (PGI-B) across these subtypes to assess for the relative severity, impact and bother of the various symptoms and conditions. Differences across sub-groups for these quantitative variables were analysed using analysis of variance.

Results

INCONTINENCE SUB-TYPE BASED ON SYMPTOMS (Table 1) - The ICIQ-SF scores and e-diary IEF did not differ significantly among the subtypes of incontinence. PGI-B ratings, S/UIQ IEF values, and I-QOL total and Psychosocial Impact (PSI) subscale scores did show significant differences among the subgroups with BMUI tending to have the most severe indicators. Subjects with pure SUI symptoms had better I-QOL total scores, but this was not apparent for the PSI subscale scores.

INCONTINENCE SUB-TYPE BASED ON CONDITION DIAGNOSIS – ICIQ-SF scores, PGI-B ratings, and IEF determined using either the S/UIQ or e-diary method did not differ significantly among subgroups. I-QOL total scores, but not PSI subscale scores, differed significantly among subgroups, with the total score being best in the pure SUI subgroup (Table 2).

Table 1. Incontinence symptom subtype analysis

Symptom Subtype	N = 774 n (%)	IEF e-diary	IEF S/UIQ	ICIQ-SF Score	PGI-B rating	I-QOL total score	I-QOL score	PSI
Pure SUI	41 (5)	17.0	21.0	11.9	3.27	63.2	69.2	
SPMUI	434 (56)	16.4	24.8	12.8	3.63	49.4	60.7	
BMUI	82 (11)	16.9	26.5	13.5	3.85	44.9	56.8	
UPMUI	184 (24)	13.2	20.3	12.6	3.38	53.2	68.3	
Pure UUI	33 (4)	-	13.5	12.3	3.36	55.2	66.9	
p-value		.167	.005	.152	.002	<.001	<.001	

Table 2. Incontinence condition subtype analysis

Condition Subtype	N =296 n (%)	IEF e-diary	IEF S/UIQ	ICIQ-SF Score	PGI-B rating	I-QOL total score	I-QOL score	PSI
Pure SUI	33 (11)	11.4	20.2	11.5	3.36	62.6	70.5	
SPMUI	151 (51)	15.9	23.7	13.0	3.57	50.2	62.0	
BMUI	13 (4)	8.84	22.9	11.9	3.23	54.4	70.9	
UPMUI	82 (28)	16.3	22.5	12.5	3.52	48.3	61.3	
Pure UUI	17 (6)	20.6	15.9	13.0	3.59	55.1	68.6	
p-value		.323	.654	.267	.760	.016	.192	

Interpretation of results

The overall pattern of results suggests that differences across symptom subtypes are largely the result of mixed symptoms, especially balanced mixed symptoms, being associated with more bother and worse severity than pure symptoms. This pattern was not observed when conditions were assessed, providing further evidence that incontinence severity may influence symptom perception by patients more than the underlying condition causing the incontinence. I-QOL total scores, because of a predominance of urge-focused questions (of 22 questions, 8 are urge focussed, 1 is stress focussed, and 13 are neutral), are higher (better) in women with pure SUI than in women with either MUI or pure UUI. However, PSI subscale scores (based on 9 neutral questions) do not differ significantly by symptom subtype.

Concluding message:

Overall, the data do not support the conclusion that UUI, either as a symptom or as a condition, is more severe, impactful, or bothersome than SUI for women who are presenting for continence care.

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