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RESULTS OF A SURVEY ON VOIDING COMPLAINTS IN WOMEN PRESENTING AT A PELVIC CARE CENTRE

Hypothesis / aims of study

Lower urinary tract symptoms (LUTS) can be subdivided in storage, voiding and post-micturition symptoms (1). Studies on female LUTS have primarily focused on storage problems such as urgency, frequency, with or without incontinence, and nocturia. However, voiding LUTS in women have been neglected for years. Difficulty in bladder emptying may result in too high post void residual volumes and therefore might lead to an increased risk of developing urinary tract infections (UTI) in women. Up until now, the prevalence of self-reported voiding complaints was only derived from small cohort studies. Therefore, the objective of this study was to report the prevalence of self-reported voiding complaints in our large pelvic care centre cohort of adult women. In addition, to assess the relationship between self-reported voiding complaints and other pelvic floor and bladder dysfunctions including UTIs. Herewith hopefully increasing our understanding of the extension of voiding complaints in women and the coexistence with other pelvic floor, bladder and bowel complaints.

Study design, materials and methods

Women with a variety of pelvic floor, bladder and bowel complaints (PFBBC) were referred by a general practitioner or medical specialist. A standardised questionnaire on 6 different PFBBC: voiding dysfunction, urinary incontinence, pelvic organ prolapse, constipation, faecal incontinence and, sexual problems was used. Subjective severity of the PFBBC was measured with the numeric rating scale (NRS) using a score between 0 (no problem) and 10 (highest severity). With a score 5 or higher, PFBBC voiding dysfunction (PFBBCVD) was considered significant. Cross-tabulation (Chi-square statistics) was used to investigate correlations between symptoms of PFBBC, patient characteristics and PFBBCVD. Pearson coefficients between PFBBCVD and other PFBBC variables and specific voiding symptoms were calculated to reveal the strength of the association. A p-value < 0.05 was considered statistically significant. IBM SPSS-pc, version 22 was used for data analysis.

Results

4470 women with PFBBC were included between March 2005 and March 2013. A total of 2660 patients (59.5%) were suffering from LUTS, with 98.2% of these women reporting a NRS of ≥5 (PFBBCVD)(mean 7.2 (sd:1.19)) age was mean 57(sd 16.0) years. 43.8% report incomplete bladder emptying, 34.9% hesitancy, 33.8% weak flow and, 20.6% reported straining to empty the bladder. Pearson's r data analysis revealed that PFBBCVD was not related to age (R=.15, p=.31) or a hysterectomy in previous history (R=.01, p=.55). However, the occurrence of recurrent UTIs had a moderate correlation (R=.34, p=<.01) with PFBBCVD. Specifically, weak correlations were seen between the feeling of incomplete bladder emptying and UTI (R=.06, p=.02) and between prolapse sensation and the sensation of incomplete bladder emptying (R=.02, p=.01).Table 1 shows the Pearson coefficients between PFBBCVD and other PFBBC variables and Table 2 between PFBBCVD and more specific voiding symptoms.

Table 1; Pearson coefficients between PFBBCVD and other PFBBC

	R	p	Sign.
Urinary incontinence	.06	<.01	*
Pelvic organ prolapse	.02	.22	
Constipation	-.12	<.01	*
Faecal incontinence	.26	<,01	*

Table 2; Pearson coefficients between PFBBCVD and specific voiding symptoms.

	R	P	Sign.
Problems emptying the bladder	.22	<.01	*
Feeling of incomplete bladder emptying	.27	<.01	*
Hesitation	.20	<.01	*
Weak flow	.25	<.01	*
Straining	.18	<.01	*

R= correlation coefficient, p= p-value, sign=significant, < smaller than, *= significant

Interpretation of results

This is the first study which analysed the prevalence of voiding complaints such as hesitancy, weak flow and straining to empty the bladder in a large cohort of women presenting at a pelvic care centre with pelvic floor, bladder and/or bowel complaints. It showed that the majority of the women had PFBBCVD, with a moderate to high perceived symptom bother of ≥ 5. This in strong contrast to the attention in clinical practice and in research that has been given to voiding LUTS in women. Important to note is that based on these results a clear symptom based distinction between bladder outlet obstruction (functional or anatomical) and impaired bladder emptying based on detrusor underactivity cannot be made.

No correlation was found between PFBBCVD and the sensation of pelvic organ prolapse. This might be explained by the fact that women with stage I and II prolapse are known to report only few symptoms (2). The existence of recurrent UTIs had a moderate correlation with PFBBCVD. When extracting only incomplete bladder emptying from the set of voiding LUTS complaints, there is only a weak correlation with recurrent UTIs. This emphasizes that the set of complaints in the voiding LUTS cluster together are related to UTIs, and not just one question. It is important to be able to interpret patient's symptoms in order to detect patients at risk for having a condition. Larger cohort studies may help to clarify the importance of specific symptoms or complexes of symptoms related to specific lower urinary tract or pelvic floor conditions.

Concluding message

PFBBCVD has a very high prevalence in a pelvic care centre. This is not reflecting in the attention voiding complaints get in clinical practice and in research. Correlations between PFBBCVD and more specific voiding symptoms are weak to moderate but mostly significant. In view of the high prevalence, future research on detection and diagnosis of voiding dysfunction in women is highly recommended and should also focus on (the level of interference of) related pelvic floor dysfunctions.

References

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Disclosures

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