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Title: TIME TO REDEFINE URINARY URGENCY?

Aims of Study

Possibly due to its subjective nature, the symptom urinary urgency is poorly defined and little studied. According to the International Continence Society (1988) urinary urgency is defined as “a strong desire to void accompanied by fear of leakage or fear of pain”, a term implying pathology. This is confusing as persons who do not experience any bladder problems whatsoever still experience some sensation of bladder filling and probably would refer to this as urinary urgency. Our belief is that there is no genuine difference in this sensation, whether the bladder is perfectly healthy or suffers from overactivity, other than some aspect of intensity.

The aim of this study was to develop a clinical measure of urinary urgency starting with healthy subjects. Thus, a broader definition of the symptom had to be adopted: “the sensation associated with bladder filling, which makes the subject conscious about the need to void”. In this abstract the word micturition will refer to the entire event, starting with first sensation and ending with voiding.

Methods

Micturition charts of 19 females without symptoms from the lower urinary tract were collected. The subjects should be healthy and at least 18 years of age. They should not have had any previous surgery of the lower urinary tract and should not be pregnant or breast-feeding. Micturition charts were kept for 72 hours and time and volume voided (ml) were entered for every micturition. Additionally, the degree of urgency at first sensation and at voiding was entered for each micturition. The level of urinary urgency was expressed as the estimated ability to postpone voiding, using an ordinal scale, where:

- 0= No urgency. I felt no need to empty my bladder, but did so for other reasons.
- 1= Mild urgency. I could postpone voiding as long as necessary, without fear of wetting myself.
- 2= Moderate urgency. I could postpone voiding for a short while, without fear of wetting myself.
- 3= Severe urgency. I could not postpone voiding, but had to rush to the toilet in order not to wet myself.

(Agreeing with the present ICS definition of urinary urgency).

In addition, subjects were asked to give their view on how many minutes it should be possible to postpone voiding for each of the three levels of urgency.

Results

All nineteen subjects fulfilled the inclusion criteria and completed 72 hours of registration. Their mean age was 43.4 years (SD 9.2 years). Four subjects were postmenopausal, all on hormonal replacement therapy. Altogether 3% (10/336) of micturitions were associated with severe urgency at first sensation (representing five subjects) and 14% (48/336) of micturitions were associated with severe urgency at voiding (representing thirteen

subjects). The mean volume voided for the ten micturitions associated with severe urgency at first sensation, was 481 ml (median 500 ml; range 250 – 280 ml). The mean volume voided for the corresponding five subjects over 72 hours was 321 ml (median 300 ml; range 60 – 900 ml). The mean volume voided for all subjects over 72 hours was 280 ml (median 250 ml; range 20 – 920 ml).

Table. Number (per cent) of micturitions, associated with no, mild, moderate and severe urgency at first sensation and at voiding, produced by the 19 subjects during 72 h.

Level of urgency	at first sensation		at voiding	
	n	(%)	n	(%)
0= No urgency	39*	(11)	44	(13)
1= Mild urgency	197	(59)	87	(26)
2= Moderate urgency	90	(27)	157	(47)
3= Severe urgency	10	(3)	48	(14)
Total	336	(100)	336	(100)

*Patients who felt no need to empty their bladder, but did so for other reasons, of course did not experience any first sensation, but were included in the column for completeness.

Subjects' median (range) estimate of their ability to postpone voiding at the different levels of urgency was for mild urgency 120 min (30-360 min), moderate urgency 60 min (15-120 min) and severe urgency 10 min (1-30 min).

Conclusion

Urinary urgency expressed as the ability to postpone voiding seems meaningful to healthy subjects. Approximately 90% of all micturitions were associated with some degree of urgency using this definition. Still, healthy subjects rarely found first sensation associated with urgency strong enough to cause fear of wetting themselves. When they did their bladder capacity was normal. This may represent an essential difference compared to patients with bladder overactivity, who frequently are in fear of wetting themselves already at small bladder volumes. If it can be verified the term urinary urgency may need to be redefined to a more general concept, also allowing persons without problems from their bladder to experience urgency.