

SITUATIONAL TRIGGERS FOR URGENCY INCONTINENCE

Hypothesis / aims of study

Patients reporting urgency incontinence symptoms often describe certain scenarios where urgency is triggered regularly. Sudden onset of urgency when approaching one's front door is the most widely recognised manifestation of this. Here we describe the results of a pilot study designed to explore patient experience of these situational triggers and an attempt to recreate these scenarios in a clinical urodynamic situation.

Study design, materials and methods

We recruited 12 women >60 years with urgency urinary incontinence (UUI) who reported at least one regular urgency/leakage scenario other than 'key in door' during a telephone call or participation in previous study. These participants reported leakage at least once a week. Each participant was asked to consider leakage triggers and 'safe spaces' in a telephone interview. During their first visit, each was asked to identify as many of both that they could think of. They completed a descriptive three day bladder diary detailing urgency episodes, whether related to trigger or not. They also completed a computer-based picture questionnaire relating photos of common trigger scenarios to their current bladder sensation and worry about leakage bladder sensation and worry about leakage. Pictures comprised generic situations previously mentioned by the group and were unrelated to each individual. Participants graded the impact of each photo on urgency using a 5-point scale (much reduced, reduced, same, increased, much increased). Each participant then took 6-8 photographs of up to 4 scenarios in which they regularly experienced urgency and/or leakage and up to 4 scenarios in which they felt safe from leakage.

On the return visit we performed filling cystometry until strong desire to void, then projected photos of both their trigger scenarios and non-trigger scenarios onto a 5'x4' screen (4 photos of each scenario for 8 seconds each). After each scenario, the participants were asked about bladder sensation, worry about leakage (scale: much reduced, reduced, same, increased, much increased), actual leakage and monitored for detrusor overactivity (DO) on urodynamic study.

Results

- Participants identified a number of scenarios, other than a front door, where they felt urgency repeatedly occurred, including: sink/running water (kitchen/bathroom); seeing a public toilet (sign/doorway); entering a home bathroom.
- 'Safe' scenarios often included places where there was a distraction e.g. sofa whilst watching TV; driving; theatre/cinema
- From generic picture questionnaire:
 - Leakage: 2 people leaked seeing a generic garage door and 3 leaked seeing generic toilets (public or home-style; a total of 4 people leaked).
 - Increased desire to urinate: 60% of people reported some or large increase in desire to void when seeing photos of generic trigger scenarios on screen.
 - Reduced desire to urinate or worry about leakage: 1 person (8%) experienced a reduction in sensation, and a further 5 people (42%) experienced reduction in worry about leakage when exposed to a 'safe' scenario.
- From self reported bladder diary, the mean percentage \pm SD of urgency episodes that were triggered by scenarios identified in the interview was 46% \pm 15%.
- From urodynamics with personalized trigger photos:
 - 38% of trigger photos elicited an increase in desire to void, in addition, 19% elicited a very strong increase;
 - 1 person experienced no change in desire to void in response to any pictures;
 - 3 people leaked (2 of these did not leak when viewing generic pictures; 7 leakage occasions in total) and 7 people (58%) experienced DO while looking at trigger pictures;
 - 3 people experienced a reduction in desire to void, and 3 people experienced reduced worry about leakage when looking at 'safe' scenarios (of these 2 people experienced reduced desire and worry; these were different participants from those who experienced reduced desire/worry on generic picture questionnaire).

Interpretation of results

Patients often report certain scenarios where urgency and leakage occurs. In this pilot study we have shown that even using generic pictures of these scenarios causes an increase in desire to void, increased worry and in some extreme cases, leakage. Personalized scenarios increased the yield still further. When using personalized scenarios we found that our participants report that situational triggers cause almost half (46%) of their urgency episodes. These urgency episodes could be reproduced during a urodynamic test, not only causing increased worry, but increased bladder sensation and in some cases, a physical bladder reaction – detrusor overactivity or leakage. Though this is a small group of participants, it does suggest that urgency may have another, more complex mechanism than solely a failure in unconscious control, which may impact therapeutic choices. These results also suggest that this could increase the sensitivity of urodynamic testing in eliciting DO. This study only considers physical situations and does not include scenarios that are often reported (temperature, anxiety, etc) which may also trigger urgency.

Concluding message

The association of urgency and leakage with these identified trigger scenarios suggests that there is another level of communication between brain and bladder which manifests as a physical reaction (DO or increased sensation) when exposed to external stimuli. We hypothesize that those who report specific situational triggers may benefit more from a behaviourally based treatment than an anticholinergic medication. We suggest that further investigation into the manifestation of these situational cues might lead to improvements in behavioural therapy and cognitive training to abort urgency, specifically personalization of behavioural therapy, in this phenotype of patients.

Disclosures

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