

Introduction

An intravesical catheter may be associated with an urge to void, suprapubic pain and/or urine leakage, causing significant distress to the patient, although the incidence of such symptoms is unclear. Existing tools available to assess the severity of symptoms related to the bladder catheter are inaccurate, may not help in the differential diagnosis with postoperative pain and are not standardized, compromising a proper diagnosis and comparison between treatments.

This study aimed to verify the applicability of a Catheter-Related Bladder Discomfort Questionnaire, a new measurement tool for evaluation of LUTS in patients with indwelling catheters.

Methodology

A questionnaire was designed in order to assess the severity of symptoms as well as its impact in quality of life.

Catheter-Related Bladder Discomfort Questionnaire

- Assessment of suprapubic discomfort
 - Two numeric rating scales (NRS) - 0 to 100 and 0 to 10
- Evaluation of urinary urgency
 - Modified version of OABsq
 - Four visual analogue scales from Urgency Questionnaire
- Impact in quality of life
 - Two final questions of IPSS
- Assessment of difficulty of filling questionnaire

- A retrospective, observational, transversal study was conducted
- The form was applied to patients admitted for elective surgery in General Surgery and Orthopedics Departments of Centro Hospitalar Universitário Lisboa Norte, through 18 months
- Patients with pelvic surgery were excluded
- Statistical analysis was performed with SPSS®v24

Primary Endpoint

Test the applicability of the questionnaire in order to assess catheter-related bladder symptoms

Results

- **n = 122** ➔ **54 patients (44,3%) with intravesical catheter**

Table 1. Sample characterization	n
Mean age (years)	53,9 ± 19
Gender	
• Female	67 (55%)
• Male	55 (45%)
Level of literacy	
• ≤ 9 th grade	69 (56,6%)
• > 9 th grade	53 (43,4%)
• Mean filling the questionnaire difficulty (from 1 to 6, where 6 it's the most difficult)	2,85

- Assesment of Suprapubic discomfort:
 - good correlation between NRS 10 and NRS 100 (rs=0,697);
 - no statistically differences between catheterized and non-catheterized patients;
- Evaluation of Urinary urgency:
 - OAB questions and visual analogue scale items presented an adequate internal consistency (Cronbach's alpha coefficient=0,865 and 0,908, respectively);
 - The only parameter with a difference statistically significant between catheterized and non-catheterized patients was the visual analogue scale (p=0,011).

Discussion

The Catheter-Related Bladder Discomfort Questionnaire aimed to evaluate the whole spectrum of symptoms the patient might present in an objective and reproducible manner.

By evaluating the impact on quality of life, such tool may be used in the daily practice. Likewise, it can be used in clinical investigation.

Although adequate internal consistency was shown, there were no statistically significant differences between patients with an intravesical catheter when compared to those without a catheter, except for the visual analogue scale.

By using only questions with more favorable respondent feedback, as determined by the difficulty in filling form, the questionnaire may be more succinct and allow, for instance, for extra-catheter urine leakage or urethral pain to be also properly addressed.

Limitations:

- small sample;
- acute use of bladder catheter;
- patients submitted to surgery;
- different anesthesia and analgesic protocols.

Conclusion

Although this catheter-related bladder discomfort questionnaire may be an ongoing project, it represents a first step towards a standardized tool that would be important in the management of patients with an indwelling catheter, including shared decision making concerning long-term catheterization and selection of adequate therapeutic targets to lower catheter-related symptoms.