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SELF-REPORTED QUALITY OF LIFE MEASURES OF PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA ON INDWELLING URETHRAL CATHETERS

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Objective To evaluate the self-reported quality of life (QoL) measures of patients with benign prostatic hyperplasia (BPH) who are managed temporarily with indwelling urethral catheters.

Patients and Methods Between February and April 2005, 40 consecutive patients with BPH (mean age: 69.5 years) on temporary indwelling catheters were asked to complete an eleven-item questionnaire in order to measure their self-reported physical and mental health status.

Result Eighty percent of the study population (n=32) did not feel more irritable than usual, 75% (n=30) had no feeling of worthlessness, 72.5% (n=29) had urethral pain which had little or no interference with their daily activities, 62.5% (n=25) still derived pleasure from the things they used to enjoy, 60% (n=24) were much less interested in sex or had lost interest in sex completely, while 80% (n=32) felt that their quality of life was not impaired as a result of long-term catheterization.

Conclusion Generally, one would expect that people who are subjected to long-term indwelling catheterization would report a poor QoL However, the majority of our patients did not have the feeling that their QoL was significantly hampered by their obvious disease burden which was probably due to the fact that urinary catheter drainage relieved their lower urinary tract symptoms.

Key Words BPH, urinary catheter, quality of life

INTRODUCTION

Assessment of QoL measures is considered particularly important for chronic diseases in which symptoms and biologic variables provide only limited information on the impact of the disorder on the individual's life. They are designed to focus on what really matters to the patients; how they live their lives with their disease. QoL measures based on the individuals' own perception of their health status and functions are an alternative measure to the more traditional objective measures of health such as mortality rates and hospitalization records. Some studies have investigated the changes in sexuality and quality of life after lower urinary tract reconstruction in neurologically impaired women previously treated with an indwelling urethral catheter[1]. Some others have determined the effects of surgical treatment of lower urinary tract symptoms (LUTS) in a patient population by evaluating their quality of life while on the waiting list for surgery[2] and before and after treatment[3]. We are not aware of any report that assesses the QoL measures of patients with BPH on indwelling urinary catheters in our environment.

BPH is common in our environment. The affected patients usually present to us with features of obstructive LUTS or in acute urinary retention (AUR). They are consequently temporarily managed with urethral catheter drainage. While awaiting definitive surgery which may take 3-9 months due in part to the patients' financial constraints, but mostly due to the long waiting list for operation, they are commenced on alpha-blockade and initial trial of voiding without catheter (TWOC). When this modality of management fails, a schedule of monthly catheter change is instituted. It is not out of place to assume that patients with this chronic condition may have their quality of life impaired as a result of this long term cathe-

terization[4,5] albeit temporary. The present study was carried out to investigate the quality of life of such patients.

PATIENTS AND METHODS

For this study which was carried out between February and April 2005, we recruited 40 consecutive patients with BPH who were being managed temporarily with indwelling urethral catheterization. Their age ranged from 55 to 84 years with a mean of 69.5 ± 13.5 years. A Foley catheter size FG 16 made of latex was used in all patients. Patients with a history of stroke and neurologic conditions associated with an impaired use of the upper limbs, diabetes mellitus, and those on medication capable of affecting the sensorium were excluded.

An 11-item questionnaire adapted from the Medical Outcomes Study Short Form-36 (MOS-SF 36) - a widely used questionnaire for measuring self-reported physical and mental health status - was used by the authors. The questions asked were derived from a larger set of questions of the MOS-SF 36 and attempted an evaluation of the patients taking into consideration six health concepts, namely: mental health, urethral pain, role limitation due to physical health, role limitation due to emotional conditions, social functioning and general health perception. Additionally, their demographic data, duration of catheterization and questions to elicit catheter-associated complications were asked (appendix).

RESULTS

The duration of catheterization ranged from 1 to 13 months with a mean of 8 months. Catheter-associated complications occurred in 15 (37.5%) patients. Nine patients had catheter encrustation at one time or another, a non-deflating catheter balloon was seen in 3, urethral bleeding after catheterization in 5, post-catheterization fever in 5, blocked catheter in 9, painful scrotal swelling in 1, and peri-catheter purulent urethral discharge in 5 patients. Some of the patients had more than one complication. (Table 1)

Twenty five patients (62.5%) still derived pleasure from the things they used to enjoy with only 4 patients (10%) reporting complete loss of pleasure. A significantly higher number

Table 1: Catheter-Associated Complications in 15 Patients

Complication*	No of Pts	%
Catheter encrustation	9/40	22.5%
Catheter blockage	9/40	22.5%
Non-deflating catheter balloon	3/40	7.5%
Urethral bleeding	5/40	12.5%
Post-catheterization fever	5/40	12.5%
Painful scrotal swelling	1/40	2.5%
Peri-catheter purulent discharge	5/40	12.5%

* some patients had more than one complication

(30, i.e. 75%) had no feeling of worthlessness with only one (2.5%) patient saying he felt utterly worthless. Eighty percent of the study population (n=32) did not feel more irritable than usual, and only two patients felt irritable all the time.

Twenty four patients (60%) were much less interested in sex or had lost interest in sex completely, while 14 patients (35%) had no change in their interest in sex. Two patients (5%) actually had an increased interest in sex and one of these engaged in sexual intercourse regularly even though on urethral catheterization.

The degree of urethral pain experienced as a consequence of long-term catheterization was regarded as none to mild in 25 (62.5%), severe in 9 (22.5%) and moderate in the remaining 6 patients. Only the 9 patients with severe pain reported an extreme interference with their normal daily activities, while in the other patients this urethral pain had little or no interference with their normal daily activities.

The general state of health was either very good or excellent in 17 (42.5%), good in 11 (27.5%) and fair to poor in 12 (30%) patients. Compared to a year before their assessment in this study, 16 (40%) rated their health now as "better", 15 (37.5%) "about the same" and 9 (22.5%) "somewhat worse". When asked if they expected their health to get worse or better, 32 (80%) felt it was definitely true to expect their health to get better.

DISCUSSION

BPH is the most common benign tumor in men over the age of 60[6] with 75% of our study

population being over 60 years of age. In most parts of the western world patients with obstructive urinary symptoms may be placed on finasteride or alpha-1 receptor blockers while on the waiting list for surgery. However, if the patient presents with acute urinary retention, definitive treatment will be offered within seven days in most urology centers worldwide. If there is associated severe electrolyte derangement, the patient may require to be placed on suprapubic catheter for 4-6 weeks until the derangement has been satisfactorily corrected. The suprapubic route is preferred if the drainage is expected to be prolonged[7,8] because it is more comfortable, easier to manage, spares the urethra from catheter-induced injury, infection or stricture, and will not interfere with sexual intercourse.

In our environment, patients are not usually expected to get immediate definitive surgical management for BPH for several reasons, such as the need for some basic preoperative work-up and also for economic reasons, since as yet there is no national health insurance scheme. Because of this, our patients usually have to be on long waiting lists for operation and are therefore temporarily managed with urethral catheter drainage.

The conceptualization of self-reported health measures remains vague and flexible while the type and number of domains assessed varies widely depending on the index clinical condition[9]. One would expect that people who are subjected to long-term indwelling catheterization often with the associated catheter-related morbidity[10,11] would report a poor QoL. However, 80% of our patients did not feel more irritable than usual, 75% had no feeling of worthlessness and a significant proportion (62.5%) had no loss of pleasure from the things they used to enjoy. On the other hand, 60% were much less interested in sex or had lost interest in sex completely while 35% had no change in their interest in sex. It is certainly not conceivable to engage in sexual activity with a urethral catheter in-situ, but one of our patients actually did on a regular basis.

It is also noteworthy that while these patients experienced varying degrees of urethral pain as a result of the presence of long-term indwelling catheter, the pain interfered with their normal daily activities in only 22.5% of our patients.

The physical burden of a disease such as BPH together with the poor economic conditions of most of our patients should sufficiently impact on their general state of well-being. We found that the general state of health was truly excellent in only 42.5% of our patients, but 40% rated their health better than it was one year before. This may be explained by the fact that the relief of the patients' significant LUTS in general and AUR in particular by catheterization may have obviously improved their health-related QoL.

The sense of optimism shown by the participants of our study was equally overwhelming. This is evidenced by the fact that 80% felt it was definitely true to expect their health to get better. The risks of retrograde lower urinary tract infection like epididymitis, ascending upper urinary tract infection, bladder calculi formation, catheter balloon impaction and catheter blockage in such groups of patients are well known and 15 (37.5%) patients had actually suffered catheter-related complications.

In conclusion, the findings from this study are instructive to the extent that our patients were able to report fairly reasonable QoL measures suggesting that their QoL was not significantly hampered by their obvious disease burden. How they were able to achieve this state of health may well be the subject of some other study, but it is not unlikely that the patients' stable family support-base may have played an important role.

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RESUME

Mesures de la qualité de vie auto-administrée chez les patients avec hyperplasie prostatique bénigne avec sondes trans-urétrales à demeure

Objectif: Évaluer la qualité de vie auto-administrée (QoL) mesurée chez les patients avec hyperplasie prostatique bénigne (BPH) qui sont traités temporairement avec les sondes trans-urétrales à demeure. **Patients et méthodes:** Entre février et avril 2005, 40 patients consécutifs avec BPH (âge moyen: 69.5 ans) avec sondes trans-urétrales à demeure temporaires ont rempli un questionnaire auto-administré de onze articles pour mesurer leur statut de santé physique et mentale. **Résultats**: Quatre-vingts pourcent de la population étudiée (n=32) n'avaient pas senti plus d'irritations qu'habituellement, 75% (n=30) n'avaient aucun sentiment d'inutilité, 72.5% (n=29) avaient des douleurs urétrales qui avaient peu ou aucun impact sur leurs activités journalières, 62.5% (n=25) ont gardé le plaisir des choses qu'ils aimaient, 60% (n=24) se sont intéressés beaucoup moins au sexe ou avaient complètement perdu l'intérêt dans le sexe, alors que 80% (n=32) notent que leur qualité de vie n'a pas été affaiblie suite au cathétérisme à long terme. **Conclusion:** Généralement, on s'attendrait que les gens qui sont soumis au cathétérisme trans-urétral à long terme rapporteraient un QoL pauvre. La majorité de nos patients n'avait pas la sensation que leur QoL s'était considérablement dégradée à cause de leur maladie et ceci est dû probablement au fait que la sonde urinaire a soulagé leurs symptômes du bas appareil urinaire.

Editorial Comment:

The authors stated that patients in Ibadan (Nigeria) who presented with acute urinary retention had to carry an indwelling urethral catheter for a mean of 8 months (range 1-13) before surgical intervention. The reasons for the delay in instituting definitive treatment are long waiting lists and economical reasons. While waiting for surgery, and with an indwelling urinary catheter in place, the patients' quality of life (QoL) was assessed. It is interesting to note that the authors found that the QoL of these patients was not significantly hampered by this preliminary method of treatment.

It is now standard practice that urological patients who require bladder drainage for more than 2 weeks should be on suprapubic catheters (SPC) as opposed to urethral catheters. The SPC is far more comfortable for the patients for both short and long term usage and is associated with less overall morbidity[1-4]. It is cheaper as well because:

- the SPC can be changed every 3 months instead of monthly for urethral catheters (except in cases of malfunctioning),
- when used in patients with prostatic obstruction awaiting surgery, following subsequent TURP a 2-way urethral catheter can be introduced per urethram for bladder irrigation instead of a 3-way catheter, and the SPC can be used to drain the bladder. Once the urine is clear, the SPC is removed, followed 24 hours later by the removal of the 2-way urethral catheter. Alternatively, after TURP the SPC can be left in place, the urethral

catheter can be removed when the urine is clear and the SPC is finally removed once the patient is voiding satisfactorily per urethram.

In the conditions prevailing in Ibadan, it should be possible to arrange the insertion of a SPC either when the patient presents with acute urinary retention or within a 2 week period after an initial period of urethral catheter insertion. Only basic instruments are required, if the patients cannot afford disposable sets. The procedure can be performed in the A & E Department or the side room of a ward. Surely, the QoL of a man on a SPC for 8 months is likely to be much better than that of a man with an indwelling urethral catheter for the same period of time. In spite of the findings in this paper, it is hoped that colleagues in Ibadan will review their practice and start putting their patients waiting for prostate surgery on a SPC instead of the indwelling urethral catheter.

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APPENDIX

HEALTH-RELATED QUALITY OF LIFE SURVEY OF PATIENTS WITH BPH ON INDWELLING URETHRAL/SUPRAPUBIC CATHETER

Dear Respondent,
This survey asks for your view about how you feel and how well you are able to do your usual activities while on an indwelling catheter for urinary drainage.
If you are unsure about how to answer a question, please give the best answer you can.
Thank you for completing this questionnaire.

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1. Age: ..... Yrs

2. Sex: Male ☐

3. Highest attained educational status: Higher education ☐ Secondary ☐
Primary ☐ Non-formal ☐

4. Site of indwelling catheter Urethral ☐ Suprapubic ☐

5. Occupation..

6. Would you like to be contacted if additional information is needed? Yes ☐ No ☐

7. Phone number.

8. Loss of pleasure
   0 I still derive pleasure from the things I enjoy
   1 I don't enjoy things as much as I used to
   2 I derive very little pleasure from the things I used to enjoy
   3 I can't get any pleasure from the things I used to enjoy

9. Worthlessness
   0 I don't feel worthless
   1 not as worthwhile and useful as I used to be
   2 feel more worthless as compared to other people
   3 feel utterly worthless

10. Irritability
   0 not more irritable than usual
   1 more irritable than usual
   2 much more irritable than usual
   3 irritable all the time

11. Sadness
    0 I do not feel sad
    1 sad much of the time
    2 sad all of the time
    3 so sad that I can't stand it

12. Loss of interest in sex
    0 no change in my interest in sex
    1 less interested in sex now
    2 much less interested in sex now
    3 lost interest in sex completely

13. Have you ever had any of these problems since you were placed on catheter

1. Catheter encrustation	yes	☐	No	☐
2. Catheter blockage	yes	☐	No	☐
3. Non deflating catheter balloon	yes	☐	No	☐
4. Urethral bleeding	yes	☐	No	☐
5. Post catheterization fever	yes	☐	No	☐
6. Painful scrotal swelling	yes	☐	No	☐
7. Pericatheter purulent discharge	yes	☐	No	☐

14.

	None 1	Very mild 2	Mild 3	Moderate 4	Severe 5	Very severe 6
How much bodily pain have you had in the period you have been on urethral catheterization?						

15.

	Not at all 1	A little bit 2	Moderately 3	Quite a bit 4	Extremely 5
How much did this bodily pain interfere with your normal work (house work and work outside the home)					

16.

	All the time 1	Most of the time 2	A good bit of the time 3	Some of the time 4	A little bit of the time 5	None of the time 6
How often have you **felt** like you were a burden on others because of carrying a catheter?						
How often have you **felt** fed up or frustrated because of carrying a catheter?						
How often were you **not able to go** to a social function ie party, meeting etc because of carrying a catheter?						
How often have being on a catheter **interfered** with your leisure time activity such as cycling, reading etc?						
How often have you had **difficulty** in performing work or daily activities?						
How often did you have to **stop/cancel** work or daily activities to deal with problems of carrying a catheter?						

17.

	Excellent 1	Very good 2	Good 3	Fair 4	Poor 5
In general would you say your health is					

18.

	Much better 1	Somewhat better 2	About the same 3	Somewhat worse 4	Much worse 5
Compared to one year ago, how would you rate your health **now?**					

19.

How **true** or **false** is each of the following statements for you as a result of carrying a catheter?	Definitely true 1	Mostly true 2	Don't know 3	Mostly false 4	Definitely false 5
I expect my health to get worse					
I expect my health to get better					
My health is excellent					
I am as healthy as anybody I know					