Patient-led Management of BPH: From Watchful Waiting to Self-management of LUTS

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1. Introduction

Over the course of the last 15 yr, there has been a steady decline in the use of watchful waiting (WW) and invasive treatment for symptomatic benign prostatic hyperplasia (BPH). During this same period, overall treatment for BPH has increased, mainly due to the advent of medical therapy, and to a lesser extent, minimally invasive surgical techniques. Despite this, observation, albeit with regular follow-up and reassessment of symptomatic status and degree of prostatic enlargement of the patient, still remains the predominant treatment choice for BPH. This remains the case regardless of the age of the patient, although the proportion of men receiving active treatment versus WW increases with age, from around 4% of those 50–59 yr old to >8% of the men ≥80 yr old [1]. This article examines evidence for whether WW is associated with favourable long-term outcomes versus earlier intervention, explores if WW can be optimised by the use of self-management techniques, and...
provides recommendations on the optimal use of WW in men with lower urinary tract symptoms (LUTS) secondary to BPH.

2. Outcomes of WW

In ageing men, it is first important to ensure that the underlying cause of voiding symptoms truly represents bladder outlet obstruction (BOO). Because a significant proportion of elderly men with LUTS may have symptoms derived from comorbidity or polypharmacy [2], the judicious use of uroflowmetry and postvoid residual urine measurements in these men can be helpful in eliminating these causes and ensuring that WW or intervention is well directed. Among those with evidence of BOO, it has become increasingly evident that WW does not necessarily provide an adequate approach for the management of men with LUTS below the threshold for surgical intervention. The first study to demonstrate this was the Veterans Affairs’ study conducted in the United States and published in 1998, which demonstrated high rates of crossover from WW to surgery in men with high or low degrees of bother [3]. Treatment failure rates were 10% for transurethral prostatic resection versus 21% for WW \((p = 0.0004)\), whereas the crossover rate from WW to active therapy at 5 yr was 36%. These findings have been confirmed in a later study of 397 men with mild symptoms (an International Prostate Symptom Score \([\text{IPSS}] < 8\), in whom 84% progressed to worse symptoms over the course of 4 yr, with 31% having “significant progression”, defined as the development of moderate or severe LUTS and an increase of \(>3\) points on the IPSS [4]. Men most likely to progress had significantly greater baseline prostate-specific antigen (PSA) levels, transition zone volumes, and obstructive symptom scores; these findings agree with a wide body of evidence demonstrating that progressive BPH can be predicted in many men using simple variables such as prostate volume and the serum PSA level [5]. These data demonstrate that a significant proportion of men (approximately one third) undergoing WW will have progressive worsening of LUTS secondary to BPH over a 5-yr period. Such men can be identified and are candidates for preventive medical therapy. The question remains, however, as to whether some of these men may benefit from WW augmented by self-management.

3. The role of the patient and physician in the management of LUTS

Studies demonstrate that men often perceive LUTS to be an inevitable consequence of ageing and that they are poorly educated on the basis of their symptoms, sometimes linking them to sexual behaviour. They often delay consultation, primarily due to uncertainty or incomplete knowledge but also through more deliberate neglect [6]. Consultation with a physician increases with age and also with IPSS and worsening quality of life scores. Despite this, >50% of men with severe symptoms do not consult a physician, whereas only 20% of those with moderate symptoms consult [7]. Although there is no specific evidence in men with LUTS that education level affects consultation rates, evidence does suggest that lower levels of education are associated with increasing difficulty in using symptom questionnaires and may also be associated with higher symptom scores [8–10].

Despite an unwillingness among a significant proportion of men to seek medical advice for LUTS, many men evolve coping strategies ranging from modification and restructuring of daily activities to self-medication with alternative (e.g., selenium, vitamin E) or herbal preparations (e.g., *Serenoa repens*, *Pygeum africanum*). Furthermore, despite delays in consultation, men typically have clear reasons why they choose to consult; worsening symptoms and quality of life are clear drivers [7], as are worry, bother, and the impact of symptoms on everyday activities such as sleep, work, and sexual activity [11–14]. Older men also consult more frequently [12].

It is evident that urologists’ preferences for treatments have a strong influence on patients’ choices of therapy. From the lowest to highest prescribers, there are 2-fold differences in the use of
α-blockers and surgery and a 9.4-fold difference in the use of 5α-reductase inhibitors (5-ARIs) [15]. Few data are available on the role of patients in the decision-making process. A study, published in 1997, of 2002 men in Spain reported that 85% of men would accept a recommendation for prostatectomy by their doctor [13]. However, the study did not seek to determine preferences for treatment among these men.

Evidence exists to demonstrate that men are able to make informed treatment choices and “trade-off” benefits and risks when presented with appropriate information [16]. Conjoint analyses were developed in mathematical psychology and have been used for many years in market research and transport and environmental economics. Increasingly, this technique is being applied in health care to determine how patients trade off risks and benefits of treatment to pick their “ideal” therapy, given its attributes. These techniques can be useful in understanding the motivations for acceptance of different treatment modalities.

With regard to treatment for LUTS, a small pilot study reported in 1996 determined that when men were presented with the benefits and risks of WW, α-blocker therapy or transurethral resection of the prostate (TURP), they were able to evaluate benefits and risks to make treatment decisions [17]. When asked to rank WW, α-blocker therapy, and TURP based on details of their risk-benefit profiles, 37% used the order WW > α-blocker > TURP, 26% used the order α-blocker > WW > TURP, and the remainder was split evenly among the other potential sequences. TURP was therefore ranked as the least preferable option by 63% of men, α-blocker by 19%, and WW by 17%. These data have been further explored in a larger-scale study of 211 men older than 40 yr randomly selected from the United Kingdom population [18]. The discrete choice experiment examined the following attributes of α-blockers, the 5-ARI dutasteride, and receiving no drug treatment: time to symptom improvement, the risks of acute urinary retention (AUR) and surgery for BPH, reduction in prostate size, and sexual and nonsexual side-effects. The types of therapy were not named; rather hypothetical scenarios were presented based on published data. Respondents were also asked how they valued, in monetary terms, these attributes individually, and also the drug profiles in their entirety. Regression analysis was used to examine the relative importance of these attributes to the men sampled, as well as the trade-offs they were willing to make between these attributes and the willingness to pay for each attribute.

The sample comprised men from a range of economic groups, almost all of whom (95%) had not been previously treated for BPH. All attributes were ranked as being important to the respondents, with the most important attribute reported as side-effects. Of these, impotence was reported as the least preferred sexual side-effect and dizziness the least preferred nonsexual side-effect. Less time to symptom improvement was preferred to more time, a reduction in prostate size was preferred to none, and the risk of surgery was perceived as less preferable to the risk of AUR. Unsurprisingly, the lowest cost of therapy per month was most preferred. When asked to trade off attributes against each other, men were willing to wait for symptom relief up to 12.7 mo if prostate size was reduced, 1.8 mo for a 1% absolute reduction in the risk of AUR, and 7.45 mo for an absolute reduction in the risk of requiring surgery (Fig. 2) [18]. They were also willing to wait 36.7 mo for symptom relief not to have impotence and 22.1 mo not to have dizziness. Willingness to pay for attributes varied from UK £3.29/mo for a 1% absolute reduction in the risk of AUR to UK £65.67 not to have impotence. Overall, men ranked prostate size reduction as the most important attribute, followed by reduction in the risk of surgery, reduction in the risk of AUR, and symptom relief. These preferences were translated into a stronger inclination towards dutasteride therapy than α-blocker therapy, with a greater willingness to pay for dutasteride. Thus men were able to balance benefits and risks of different treatment modalities and had clear views on their
optimal long-term treatment choices. These data demonstrate that, given appropriate information, men can make informed treatment decisions for their LUTS.

4. Role of self-management for LUTS

The three essential components of self-management strategies for LUTS are education and reassurance, lifestyle modification, and use of behavioural interventions [19]. Self-management of LUTS is intuitively attractive because it offers potential symptom benefits at low risk to patients, gives patients control, can reduce health-seeking behaviour, and can reduce resource use [20]. Potential disadvantages include the time-consuming nature of offering lifestyle advice, the complex nature of the intervention, and the need for practitioner and patient motivation. These factors may explain why provision of self-management advice varies considerably among practitioners [21]. Despite the intuitive benefits that self-management can offer, the question remains as to whether significant symptomatic benefits can be achieved in men undergoing watchful waiting for LUTS and whether such benefits may be additive to other treatment modalities such as medical therapy.

Few data exist on the benefits of patient education and reassurance for men with LUTS. A study conducted in the Netherlands evaluated the benefits of a distance learning programme for physicians on patients’ perceptions [22]. When physicians had received such training, patients were more likely to report a feeling of being able to maintain their independence, coping with their illness, and being able to help themselves versus patients who had visited practitioners who had not undergone distance learning. These data demonstrate that better education can have a positive impact on patients’ perceptions of their LUTS.

Limited evidence for the benefits of lifestyle modification can be derived from a study of 882 men who were classified into two broad groups based on evidence of BPH (had surgery for prostatic enlargement or had evidence of enlargement and/or symptoms) or no evidence of BPH (no surgery for BPH and no enlargement and/or no or mild LUTS) [23]. This study observed a positive association between a diagnosis of BPH and coffee consumption, but a negative association (i.e., a diminished risk) associated with smoking ≥20 cigarettes/d and alcohol consumption of ≥1 glass/d. One study confirmed an association between LUTS and caffeine consumption [24], whereas another did not [25]. It therefore remains unclear from these data whether these lifestyle factors play a role in predisposing to underlying hyperplasia, whether they exacerbate LUTS, or whether they have little impact. Furthermore, these data do not provide any direct evidence of any benefits derived from altering lifestyle factors. Indeed, no randomised data exist in men with LUTS to demonstrate that reductions in fluid intake or caffeine/alcohol consumption positively affect LUTS.

Data on the benefits of behavioural interventions are also sparse. One 12-wk study has determined that urethral milking and pelvic floor exercises are effective treatments for postmicturition dribble compared with counselling alone [26]. Double voiding has not been formally studied, but anecdotaly appears to benefit many men. More formal bladder retraining for irritative symptoms, common in overactive bladder but also a part of the LUTS seen with BPH, has proven benefits both as a primary treatment strategy and also as an adjunct to medical therapy, to improve urgency, frequency, and nocturia [27,28].

Current evidence and clinical experience have been brought together using a consensus approach to create guidelines on the optimal approach to self-management of LUTS [29]. The consensus produced recommendations on the following self-management approaches: patient assessment prior to self-management, education and reassurance, fluid management, caffeine and alcohol consumption, concurrent medication use, types of toileting, bladder retraining, and implementation of a self-management programme. To validate these approaches, a pilot study recruited 25 men with uncomplicated LUTS, mean age 64 yr and with a baseline IPSS score of 19.6, into a self-management programme [30]. The men, none of whom were receiving medical therapy, were recruited over a 3-mo period and offered education (prostate and bladder), reassurance (expected future symptoms, prostate cancer risk), lifestyle modifications (fluid management by evening fluid restriction, caffeine and alcohol advice), and behavioural interventions (double-voiding, urethral milking, bladder retraining). Men completed a 3-d frequency volume chart at baseline and then at 1, 3, and 6 mo.

Of the 25 men, 2 withdrew from the study before final assessment, 2 others had deteriorating symptoms and were started on an α-blocker, and a further patient was found to have prostate cancer after a rise in PSA level. Men who underwent the self-management programme had significant reductions in the number of voids/24 h, the number of episodes of nocturia, the number of voids/24 h without
urgency and nocturnal voided volume, as well as an increase in voided volume per void. The mean IPSS was also decreased to 8.5 at month 3. These outcomes are being further scrutinised in a randomised, controlled study that was completed in 2005 but is not yet published [31].

One area that warrants further scrutiny is the role of socioeconomic status (SES; income, wealth, or education) in the uptake and adherence of self-management techniques. Evidence from other disease areas such as human immunodeficiency virus and diabetes mellitus suggests that a lower SES is associated with not only poorer health outcomes, but also lower degrees of self-management and adherence to health advice [32]. This suggests that the impact of self-management could be diminished in men with a lower SES; a confounder that may be modified by better health education for these groups.

5. Conclusions

A significant proportion of men with LUTS secondary to BPH have progressive disease that warrants active management beyond WW. These men can be identified using baseline risk factors, such as age, prostate volume, and PSA level, and are candidates for medical therapy. Self-management, through a number of components including education, lifestyle modification, and behavioural interventions, offers the opportunity to improve outcomes in men undergoing WW or, indeed, for those receiving medical therapy. Current evidence on the benefits of self-management are limited, and further data will shortly be available to judge its value in the management algorithm for LUTS in men with BPH.

References


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