

Successful Aging in Men With BPH

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Advances in healthcare and preventive medicine are markedly improving both life expectancy and overall quality of life (QOL) in the aging male population of developed countries. The term “successful aging” has been used to describe the concept of living healthier lifestyles, with the goal not only of living longer but also with greater expectations and enjoyment of life well into late adulthood.^{1,2} Even among the healthiest men, however, several medical conditions inevitably become more prevalent with age.¹ These include benign prostatic hyperplasia (BPH), the prevalence of which is nearly universal among men 80 to 90 years of age.¹ Moderate-to-severe lower urinary tract symptoms (LUTS) associated with BPH occur in about one quarter of men in their 50s and affect about half of all men 80 years and older.³ Other common age-related conditions include cardiovascular (CV) disease, which remains a leading cause of death among both men and women, and erectile dysfunction (ED), the incidence of which may be affected by BPH and CV disease^{4,7} and which may have a profound effect on overall QOL. Although effective treatments exist for all of these medical conditions, physicians need to be aware that 2 or more of them often exist simultaneously in men as they age,^{4,7,8} and as a result, the treatment of one condition may affect the treatment of another.

BPH is characterized by an androgen-induced benign overgrowth of prostatic tissue. The clinical presentation of BPH is characterized by LUTS such as urgency, frequency, nocturia, intermittency, weak urine stream, and incomplete bladder emptying.^{1,3,8} Serious complications of BPH with LUTS include acute urinary retention, urinary tract infection, long-term renal insufficiency, and hematuria.³ In this supplement, we examine the epidemiology, treatment, and associated costs and outcomes of BPH in the aging male

patient—within the context of some of the most common comorbid conditions in aging men, such as CV disease and ED.

The first article, “BPH: Epidemiology and Comorbidities,” examines the prevalence of LUTS associated with BPH and the frequent coexistence of other conditions, including CV disease and ED. As is the case with BPH, the incidence of CV risk factors such as hypertension and diabetes increases steadily as men approach aged 65 years.^{6,9} ED is also a significant source of concern for the aging man, with some estimates putting the percentage of men with minimal, moderate, or complete impotence at >50% in men between 40 and 70 years of age, with a tripling in the rate of complete impotence over this time.^{4,10} The close association between LUTS and ED that has been observed in some studies⁷ suggests that the effective treatment of LUTS can reduce sexual symptoms in men with BPH.¹¹ When treating LUTS, however, potential comorbidities such as CV disease and hypertension should be kept in mind, to minimize the potential for adverse CV events such as orthostatic hypotension, which can lead to falls in the elderly.

Therapeutic options for LUTS associated with BPH range from watchful waiting to surgical intervention, with pharmacologic management as first-line therapy when treatment is considered.⁸ The second article, “Treatment and Pharmacologic Management of BPH in the Context of Common Comorbidities,” focuses on the issue of therapy with an emphasis on pharmacologic management in patients with other comorbidities. Alpha₁-selective adrenergic receptor (α_1 -AR) antagonists, which serve to relax

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prostatic smooth muscle tone, and 5-alpha-reductase inhibitors (5- α RI), which inhibit androgen-dependent enlargement of the prostate, are the principal agents used and may be given as combination therapy.

Recent results from several trials of combination therapy indicate a significant benefit of drug therapy on BPH symptoms whether using an α_1 -AR antagonist, a 5- α RI, or a combination of these 2 treatments.¹²⁻¹⁴ In the Medical Therapy of Prostatic Symptoms (MTOPS) study, combination therapy was more likely than monotherapy to reduce the risk of disease progression.¹⁴ Combination therapy also may be the most effective option in patients with severe LUTS. The Symptom Management After Reducing Therapy (SMART) study compared the effects of dutasteride and tamsulosin for 36 weeks; 42.5% of patients with severe symptoms who withdrew from tamsulosin experienced a worsening of symptoms.¹² These findings suggest that combination therapy should be maintained when severe LUTS are manifested. In MTOPS, the nonsubtype-selective α_1 -AR antagonist, doxazosin, was associated with dizziness, asthenia, and orthostatic hypotension, whereas the use of finasteride was associated with sexual side effects (impotence, decreased libido).¹⁴ Ejaculation disorders, but not orthostatic hypotension, dizziness, or somnolence, were associated with tamsulosin in the SMART study.¹² The possible occurrence of vasodilatory adverse events may substantively limit the tolerability of BPH treatment in patients with preexistent conditions such as CV disease and ED, and in those patients who may be at risk of a fall.

The ultimate end point of BPH treatment is to reduce LUTS symptoms and improve QOL for patients who may have other comorbid conditions. The third article in this issue, "BPH: Costs and Treatment Outcomes," focuses on our current knowledge of cost effectiveness and treatment outcomes with regard to the various BPH treatment options, including pharmacotherapy and minimally invasive to invasive surgery. Although further research is needed in this area among pharmacotherapies, available data indicate a benefit for selective α_1 -AR antagonist therapy, because adverse events

including dizziness and orthostatic hypotension (and associated falls in the elderly) appear to be less frequent than with nonselective therapy, while providing similar efficacy.¹⁵ A recent cost-effectiveness study also suggests a benefit of the subtype-selective agent tamsulosin over nonsubtype-selective agents (terazosin, doxazosin). Although direct medical costs were higher using tamsulosin, success rate was improved, as assessed by a reduction in the need for surgical intervention.¹⁶

The effective control of BPH without worsening or introducing comorbid conditions is essential to promote "successful" aging. To that end, selecting therapy for BPH that is the least likely to exacerbate existing comorbidities may provide the most optimal treatment outcome.

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