

## Phytotherapy for Benign Prostatic Hyperplasia

Wilt TJ, Ishani A, Stark G, MacDonald R, Lau J, Mulrow C. Saw palmetto extracts for treatment of benign prostatic hyperplasia: a systematic review. *JAMA* 1998;280:1604-9.

### Study Overview

**Objective.** To review the current evidence regarding the efficacy and safety of the saw palmetto plant extract, *Serenoa repens*, in men with symptomatic benign prostatic hyperplasia (BPH).

**Design.** Systematic review of studies.

**Study selection criteria and review methods.** Studies were identified through searches of various sources, including MEDLINE (1966-1997), EMBASE, Phytodok, the Cochrane Library, bibliographies of identified trials and review articles, and contact with authors and manufacturers. Randomized trials were included if participants had symptomatic BPH, the intervention group received *S. repens* alone or in combination with other phytotherapeutic agents, the control group received placebo or alternative pharmacotherapies for BPH, and the duration of therapy was at least 30 days. Two investigators independently extracted data from relevant studies on design features, subject characteristics, therapy allocation, and outcomes.

**Main outcome measures.** Self-reported urologic symptoms and urinary tract symptom scores derived using the International Prostate Symptom Score scale; peak urine flow; and adverse effects.

**Main results.** 18 randomized trials involving 2939 men were analyzed. Compared with placebo, men with *S. repens* had decreased urinary tract symptom scores (1 study), decreased nocturia (10 studies), and improved self-rated urinary tract symptoms (6 studies) and peak urine flow (8 studies). Compared with men who received finasteride, men who received *S. repens* had similar improvements in urinary tract symptom scores (2 studies) and peak urine flow (2 studies). Adverse effects due to *S. repens* were mild and infrequent. For example, erectile dysfunction was more common with finasteride (5%) than with *S. repens* (1%;  $P < 0.001$ ). Withdrawal rates in men assigned to placebo, *S. repens*, and finasteride were 7%, 9%, and 11%, respectively.

### Conclusion

The evidence suggests that *S. repens* improves urologic symptoms and urine flow measures as effectively as finasteride, with fewer adverse effects.

### Commentary

In the United States, phytotherapy, or the use of plant extracts, is not common. In contrast, phytotherapeutic agents represent 90% of all medications dispensed for treatment of BPH in Germany and Austria [1]. Recent surveys, however, have highlighted the increased use of alternative medical therapies in the United States [2]. Physicians as well as the U.S. Food and Drug Administration are now more attentive to the need to systematically evaluate the effectiveness and safety of alternative medical therapies.

Of the 30 phytotherapeutic compounds for treating BPH, the most widely used is the extract of the dried ripe fruit from the American dwarf saw palmetto plant, *S. repens* [3]. Most existing studies of *S. repens* for BPH are limited by their short duration and variability in study design, use of preparations, and analysis of outcomes. In the absence of a definitive study on the effectiveness and safety of *S. repens* in BPH, the authors have systematically reviewed the rather sparse literature and concluded that *S. repens* improves urinary tract symptoms and urinary tract flow measures comparable to pharmacologic therapies [4,5].

### Applications for Clinical Practice

This initial look at *S. repens* is positive: the extract from this plant has effectiveness outcomes equivalent to and safety outcomes better than pharmacologic therapies commonly used in the United States. At the same time, it is less expensive, reportedly costing between \$10 and \$50 for a 3-month supply versus about \$120 for terazosin and \$200 for finasteride. However, it is important to remember that the long-term effectiveness and safety of *S. repens* are unknown.

### References

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