



Phytotherapy for benign prostatic hyperplasia.

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OBJECTIVE: To systematically review the existing evidence regarding the efficacy and safety of phytotherapeutic compounds used to treat men with symptomatic benign prostatic hyperplasia (BPH). **DESIGN:** Randomized trials were identified searching MEDLINE (1966--1997), EMBASE, Phytodok, the Cochrane Library, bibliographies of identified trials and review articles, and contact with relevant authors and drug companies. The studies were included if men had symptomatic benign prostatic hyperplasia, the intervention was a phytotherapeutic preparation alone or combined, a control group received placebo or other pharmacologic therapies for BPH, and the treatment duration was at least 30 days. Key data were extracted independently by two investigators. **RESULTS:** A total of 44 studies of six phytotherapeutic agents (*Serenoa repens*, *Hypoxis rooperi*, *Secale cereale*, *Pygeum africanum*, *Urtica dioica*, *Curcubita pepo*) met inclusion criteria and were reviewed. Many studies did not report results in a method allowing meta-analysis. *Serenoa repens*, extracted from the saw palmetto, is the most widely used phytotherapeutic agent for BPH. A total of 18 trials involving 2939 men were reviewed. Compared with men receiving placebo, men taking *Serenoa repens* reported greater improvement of urinary tract symptoms and flow measures. *Serenoa repens* decreased nocturia (weighted mean difference (WMD) = -0.76 times per evening; 95% CI = -1.22 to -0.32; n = 10 studies) and improved peak urine flow (WMD = 1.93 ml s(-1); 95% CI = 0.72 to 3.14, n = 8 studies). Men treated with *Serenoa repens* rated greater improvement of their urinary tract symptoms versus men taking placebo (risk ratio of improvement = 1.72; 95% CI = 1.21 to 2.44, n = 8 studies). Improvement in symptoms of BPH was comparable to men receiving the finasteride. *Hypoxis rooperi* (n = 4 studies, 519 men) was also demonstrated to be effective in improving symptom scores and flow measures compared with placebo. For the two studies reporting the International Prostate Symptom Score, the WMD was -4.9 IPSS points (95% CI = -6.3 to -3.5, n = 2 studies) and the WMD for peak urine flow was 3.91 ml s(-1) (95% CI = 0.91 to 6.90, n = 4 studies). *Secale cereale* (n = 4 studies, 444 men) was found to modestly improve overall urological symptoms. *Pygeum africanum* (n = 17 studies, 900 men) may be a useful treatment option for BPH. However, review of the literature has found inadequate reporting of outcomes which currently limit the ability to estimate its safety and efficacy. The studies involving *Urtica dioica* and *Curcubita pepo* are limited although these agents may be effective combined with other plant extracts such as *Serenoa* and *Pygeum*.

Adverse events due to phytotherapies were reported to be generally mild and infrequent. **CONCLUSIONS:** Randomized studies of *Serenoa repens*, alone or in combination with other plant extracts, have provided the strongest evidence for efficacy and tolerability in treatment of BPH in comparison with other phytotherapies. *Serenoa repens* appears to be a useful option for improving lower urinary tract symptoms and flow measures. *Hypoxis rooperi* and *Secale cereale* also appear to improve BPH symptoms although the evidence is less strong for these products. *Pygeum africanum* has been studied extensively but inadequate reporting of outcomes limits the ability to conclusively recommend it. There is no convincing evidence supporting the use of *Urtica dioica* or *Curcubita pepo* alone for treatment of BPH. Overall, phytotherapies are less costly, well tolerated and adverse events are generally mild and infrequent. Future randomized controlled trials using standardized preparations of phytotherapeutic agents with longer study durations are needed to determine their long-term effectiveness in the treatment of BPH.