

An alternative stream: *Serenoa repens* for benign prostatic hypertrophy?

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SYNOPSIS

Extracts from the berries of the saw palmetto plant (*Serenoa repens*) can have a beneficial effect on the symptoms of benign prostatic hypertrophy. This effect is small and the mechanism of action is unknown. Comparisons show that extracts of *Serenoa repens* and finasteride have similar effects on urine flow. At present there is no clear role for the extracts in the treatment of lower urinary symptoms and the long-term adverse effects are unknown. Patients with symptoms should have prostate cancer excluded before trying *Serenoa repens*.

Index words: complementary medicine, herbal medicine, saw palmetto, urinary tract disorders.

(Aust Prescr 2000;23:79)

Introduction

Studies show that 24–90% of new or existing patients attending urology clinics in America with symptoms of benign prostatic hypertrophy (BPH) use or have tried some form of complementary medicine. The most popular extract comes from saw palmetto berries (*Serenoa repens*, also known as *Serenoa serrulata* or *sabal*).

Saw palmetto

Saw palmetto is a dwarf palm tree native to North America. It gets its name from the saw-like ends of the leaf blades which can cut into the clothing and skin of those coming into contact with them.

Lipophilic constituents extracted using hexane or ethanol are thought to be responsible for the plant's effects in BPH. Hence products extracted with water, such as teas, would not be expected to produce the same effects. However, the mechanism of action is unclear. The effects are generally attributed to a combination of the spasmolytic, anti-androgen and anti-inflammatory activities of the extract. Adverse effects occur rarely and include headache, nausea and diarrhoea.

Evidence of efficacy

A previous editorial in *Australian Prescriber* questioned the relevance of the intermediate outcomes used in studies of finasteride.¹ Since this challenge was made, a company-supported four year study of finasteride has shown a reduction in the development of acute urinary retention and in the need for surgery.²

A recent systematic review of *S. repens* extracts for BPH included 18 (of the 24) randomised controlled trials.³ Thirteen

of these (with 1118 participants) compared an extract of *S. repens* (alone or combined with other phytotherapies) versus placebo, and showed a statistically significant improvement in urinary symptoms and flow measures. Two studies made a direct comparison with finasteride, and their pooled results showed there was no difference in urinary symptom scores between the extracts and finasteride. The weighed mean difference was 0.37 IPPS points (scale 0–35) (95% CI –0.45 to 1.19). Similarly there was no difference in the secondary outcomes peak urine flow, nocturia/mean urine flow (Permixon study only) and residual volume (Pro study only). Drop-out rates and gastrointestinal adverse effects were similar for *S. repens* and finasteride (9% versus 11%, 1.3% versus 1.5% respectively). Erectile dysfunction rates were lower for *S. repens* than for finasteride (1.1% versus 4.9%, $p < 0.001$).

Conclusion

So should patients who cannot have surgery for prostatic symptoms now take *S. repens* once prostate cancer has been excluded? At this stage the available evidence does not provide a clear answer. Since this patient group is currently highly motivated to use complementary medicines and studies suggest some individuals may benefit from using *S. repens*, it seems reasonable to see if symptoms improve during a one to three month trial. Prostate cancer should first be excluded and patients developing urinary retention, urinary tract infections, bladder calculi or deterioration of renal function should be discouraged from using phytotherapeutic agents.

Clarification of the mechanism of action and data on long-term effectiveness and safety are required as well as studies comparing the extracts with α -antagonists such as prazosin. The other unknown factor is whether saw palmetto extracts available locally are comparable in quality and would replicate the results seen in the European trials. There is considerable variation in saw palmetto content of Australian products, and some provide lower daily doses than published recommendations. Hence questions remain when considering if this alternative (or complementary) stream leads to the same sea.

REFERENCES

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