

## Use of Phytotherapy in Treatment of Benign Prostatic Hyperplasia

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### Abstract

### Case Report

This case report describes a 76-year-old man with benign prostatic hyperplasia (BPH), on chronic tamsulosin, who experienced a reduction in prostate volume and an improvement in symptoms after self-initiated use of a multi-herbal supplement. Prostate volume decreased from approximately 107 cc to 73 ml after 30 days of consecutive use, with International Prostate Symptom Score (IPSS) improving from 17 (moderate) to 7 (mild). While causality cannot be established from a single case, the findings suggest potential symptom benefit. Larger studies are needed to evaluate safety and effectiveness.

**Keywords:** Benign prostatic hyperplasia, Tamsulosin, Multi-herbal supplement, Prostate volume, Lower urinary tract symptoms, IPSS.

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## BACKGROUND

The NIH estimates BPH to affect 5% to 6% of men ages 40 to 64 and 29% to 33% of those ages 65 and older. It often leading to lower urinary tract symptoms (LUTS) such as weak stream, nocturia, and incomplete bladder emptying. Standard treatments include  $\alpha$ -blockers and 5- $\alpha$ -reductase inhibitors, but the effectiveness of these therapies, along with potential side effects, may lead some patients to explore alternative therapies. Traditional herbal preparations have been used for urinary symptoms through potential diuretic and anti-inflammatory mechanisms.

## CASE PRESENTATION

A 76-year-old man presented with chronic LUTS including weak stream and nocturia. He had been on 0.4mg tamsulosin for several years with minimal symptom improvement. Medical history included hyperlipidemia, glaucoma, and previous right nephrectomy in setting of benign renal tumor several years ago. He does not smoke or drink and is generally sedentary but follows a balanced diet. He was taking tamsulosin for several years with IPSS score 17. Baseline PSA was 2.06 ng/mL. Ultrasound done in November 2024 measured the prostate volume to be 107 cc. The patient started a multi-herbal supplement independently from July-August 2025, while continuing tamsulosin 0.4mg. No change in diet, exercise, or other medications.

### Phytotherapy Supplement Composition

Herb	Proposed Mechanism	Evidence Type
<i>Galium aparine</i> (Cleavers) (100mg)	Anti-inflammatory; mild diuretic; may reduce bladder neck irritation	Traditional use; in vitro
<i>Polygonum aviculare</i> (Knotgrass) (90mg)	Smooth muscle relaxation; flavonoid anti-inflammatory activity	Animal and in vitro
<i>Cyperus rotundus</i> (Nutgrass) (90mg)	COX-2 modulation; antispasmodic effects	Experimental models
<i>Equisetum arvense</i> (Horsetail) (70mg)	Diuretic; antioxidant compounds	Small clinical observations
<i>Chenopodium murale</i> (40mg)	Anti-inflammatory; reduces urinary irritation	Traditional use
<i>Orobancha ramosa</i> (Broomrape) (50mg)	Phenolic antioxidants; anti-inflammatory activity	In vitro
<i>Lepidium meyenii</i> (Maca) (50mg)	May improve pelvic circulation and quality of life	Human RCTs on sexual function

## METHODS

Patient presented to urology follow up appointment in September 2025 reporting significant improvement of symptoms after self-initiating an herbal supplement from July-August 2025. IPSS was measured through patient questionnaire. PSA level and ultrasound of the prostate was ordered to compare to baseline values.

## RESULTS

Baseline ultrasound done in November 2024, while on tamsulosin 0.4mg only, showed a 107-cc prostate with 13 cc post-void residual. Follow-up ultrasound reported a prostate volume of 73 ml. IPSS improved from 17 to 7. PSA values remained within normal range at 1.75 ng/ml (November 2024) to 2.39

ng/ml (September 2025). No adverse effects from the supplement were reported.

### Ultrasound Reports

#### Baseline Ultrasound Report (November 2024):

Prostate measures 107 cc with lobulated contours and median lobe protrusion. Post-void residual is 13 cc. Right kidney.

surgically absent. Radiologist: Subramaniyan Ramanathan.

#### Follow-Up Ultrasound Report (September 2025):

Prostate volume 73 ml. Pre-void urine 369 ml, post-void 28 ml. No acute findings. Radiologist: Shahid Waheed.

### Comparative Imaging

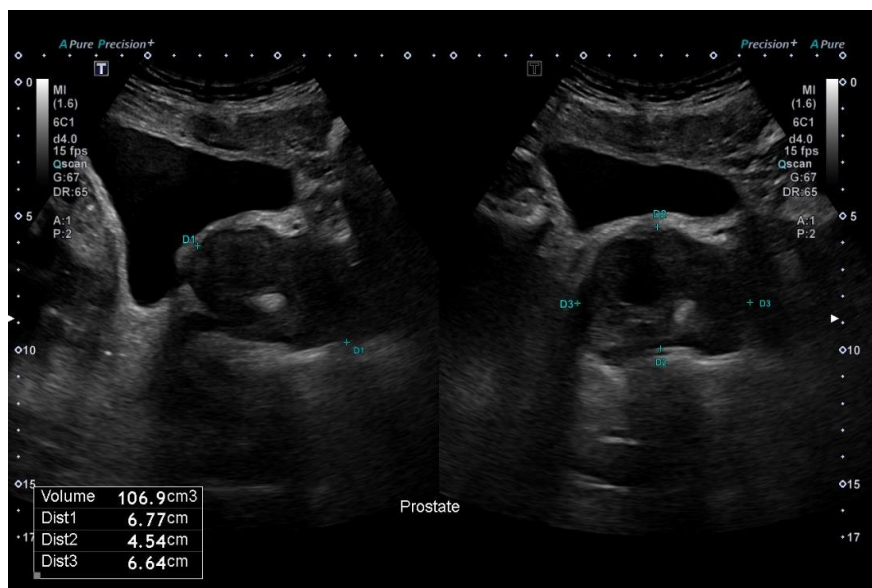


Figure 1: Pre-treatment prostate ultrasound (November 2024)

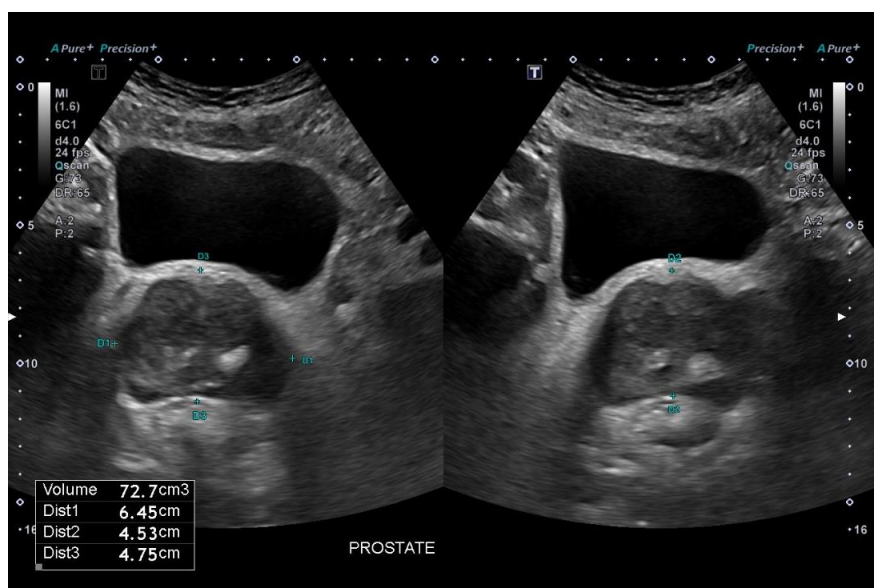


Figure 2: Post-treatment prostate ultrasound (September 2025)

## DISCUSSION

This case suggests a possible association between use of a multi-herbal blend and improvement in LUTS and prostate volume. The herbal combination used by the patient consists of seven botanicals that are commonly associated with traditional diuretic and anti-inflammatory use in European and Middle Eastern herbal practices. While direct evidence linking these herbs to prostate volume reduction is limited, some of the individual components have pharmacological properties that may influence symptom burden in BPH through indirect pathways.

*Galium aparine* (Cleavers) and *Polygonum aviculare* (knotgrass) have a long history of use for urinary tract discomfort, supported by laboratory data indicating anti-inflammatory and mild diuretic effects. These mechanisms may theoretically reduce irritative symptoms and improve bladder emptying by decreasing local inflammation around the bladder neck. *Cyperus rotundus* (nutgrass) has demonstrated anti-spasmodic and COX-2 modulating effects in experimental models, suggesting a role in reducing pelvic discomfort and smooth muscle tension. Although the clinical application in BPH is not established, these actions may contribute to improvements in perceived urinary flow.

*Equisetum arvense* (field horsetail) is traditionally used for its diuretic properties, and small clinical observations have shown improved urinary frequency and urgency in non-BPH populations. Reduced bladder distention and better emptying may have contributed to the lower IPSS score in this case, even without a direct effect on prostate tissue growth. *Chenopodium murale* and *Orobancha ramosa* are less commonly described in peer-reviewed urology literature but contain phenolic compounds with antioxidant and anti-inflammatory properties. It is unclear whether these ingredients impact prostate physiology, though their presence may contribute to a general reduction in urinary tract irritation. *Lepidium meyenii* (maca) has been studied primarily for male sexual function and quality of life; some research suggests improved overall well-being in men with LUTS, but a direct effect on prostate size has not been demonstrated.

The mechanism by which a reduction in prostate volume occurred in this case is uncertain. The most likely explanation is an improvement in symptoms related to reduced inflammation, improved bladder dynamics, or the cumulative effect of multiple mild actions rather than a strong hormonal effect. Unlike saw palmetto or 5- $\alpha$ -reductase inhibitors, the herbal ingredients in this supplement are not known to significantly influence dihydrotestosterone pathways. The prostate volume change may represent a spontaneous fluctuation, partial regression of inflammation, or a combination of factors including ongoing use of tamsulosin. Without a controlled

comparison, the degree to which the supplement contributed to the volume change cannot be confirmed.

The improvement in IPSS from 17 to 7 supports a meaningful change in symptom burden from moderate to mild severity. Symptom improvement is consistent with known effects of diuretic herbal blends in mild urinary discomfort, even if structural change to the prostate is uncommon. It is also notable that this outcome occurred while the patient remained on tamsulosin, which may have continued to provide benefit.

From a clinical perspective, this case raises questions about whether multi-ingredient herbal formulations with primarily anti-inflammatory and diuretic activity could complement standard therapy in select patients who seek alternative options. However, herbal supplements vary widely in composition, concentration, and quality control. Published evidence on these specific ingredients in BPH is limited to in vitro studies, animal models, and traditional medicine reports. There are no large-scale randomized controlled trials evaluating this exact combination for prostate outcomes, long-term effects, or interactions with other medications.

Limitations include the single-patient design, absence of placebo control, and the potential influence of concomitant pharmaceutical therapy. Additionally, prostate volume measurements can vary depending on technique and patient factors, and the observed volume change over ten months may not generalize to other individuals. Despite these limitations, this case highlights a potential area for further research — particularly the role of anti-inflammatory and urinary tract soothing botanicals in symptomatic LUTS management.

In summary, this case documents a reduction in prostate volume and improved LUTS after prolonged use of a multi-herbal supplement while on tamsulosin. Although a causal relationship cannot be established, the observation suggests that the combined anti-inflammatory, diuretic, and smooth muscle effects of these botanicals may merit future clinical investigation. Larger controlled trials are needed to determine safety, mechanism of action, and reproducibility.

### Limitations and Learning Points

The findings come from one patient, and the composition of the supplement has not been validated by a food or drug agency. Additionally, this is a multi-herbal supplement, therefore unclear which of the components provided the most benefit, or which truly work synergistically. Larger trials are needed. Herbal supplements vary in composition and potency. Clinicians should ask about over-the-counter use when evaluating BPH management.

### Patient Consent and Disclosure

- Written informed consent was obtained from the patient for publication of this case report and accompanying images.
- The author declares no conflicts of interest and no external funding.

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