

Urtica dioica (Nettle Extract) for Treatment of Benign Prostatic Hyperplasia: A Prospective, Randomized, Double-Blind, Placebo-Controlled, Crossover Study – Prosvent

Mohammad Reza Safarinejad, MD

Purpose: To determine the effects of therapy with *Urtica dioica* for symptomatic relief of lower urinary tract symptoms (LUTS) secondary to benign prostatic hyperplasia (BPH). **Material and Methods:** A 6-month, double-blind, placebo-controlled, randomized, partial crossover, comparative trial of *Urtica dioica* with placebo in 620 patients was conducted. Patients were evaluated using the International Prostate Symptom Score (IPSS), the maximum urinary flow rate (Qmax), postvoid residual urine volume (PVR), Serum Prostatic-Specific Antigen (PSA), testosterone levels, and prostate size. At the end of the 6-month trial, unblinding revealed that patients who initially received the placebo were switched to *Urtica dioica*. Both groups continued the supplement up to 18 months.

Results: Five hundred fifty-eight patients (90%) completed the study (287/305, 91% in the *Urtica dioica* group, and 271/315, 86% in the placebo group). By intention-to-treat analysis, at the end of the 6-month trial, 232 (81%) of 287 patients in the

Urtica dioica group reported improved LUTS compared with 43 (16%) of 271 patients in the placebo group ($P < 0.001$). Both IPSS and Qmax showed greater improvement with drugs than with placebo. The IPSS went from 19.8 down to 11.8 with *Urtica dioica* and from 19.2 to 17.7 with placebo ($P = 0.002$). Peak flow rates improved by 3.4 mL/s for placebo recipients and by 8.2 mL/s for treated patients ($P < 0.05$). In *Urtica dioica* group, PVR decreased from an initial value of 73 to 36 mL ($P < 0.05$). No appreciable change was seen in the placebo group. Serum PSA and testosterone levels were unchanged in both groups. A modest decrease in prostate size as measured by transrectal ultrasonography (TRUS) was seen in *Urtica dioica* group (from 40.1 cc initially, to 36.3 cc; $P < 0.001$). There was no change in the prostate volume at the end of study with placebo. At 18-month follow-up, only patients who continued therapy, had a favorable treatment variables value. No side effects were identified in either group.
