QUANTIFICATION OF PROSTATIC ANDROGENS. PART 2. EFFECT OF SAW PALMETTO HERBAL BLEND

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Abstract

Objectives

Saw palmetto (SP) is widely used for symptomatic BPH, but its mechanisms are unknown. To evaluate the possibility that SP inhibits 5 alpha-reductase (5AR), we developed a new method for determination of prostatic tissue levels of testosterone (T) and dihydrotestosterone (DHT) and applied it to men in a randomized trial of Saw Palmetto Herbal Blend (SPH!B) v placebo (P).

Methods

Men with BPH were randomized to placebo (P) (18 ga, needle cores) at baseline and after 6 months of treatment with SPH!B or a standardized SPH!B (n = 20). BPH and SPH!B patients were matched at baseline for age (64 years), symptoms (IPSS = 17), uroflow (Qmax = 10.5 cc/sec), P velocity (56 cc), and PSA (3.3 ng/ml). For each man, 2 midglandal P cores were taken, frozen, and analyzed at the end of study for T, DHT, and Estradiol (E2) (method in companion abstract). Other P cores were used for routine histology and to quantify tissue components moranometrically.

Results

P levels of T (1.4-1.6 mg/dl) and DHT (1.6-6.5 mg/dl) were similar in the two groups at baseline (p = NS). After treatment, T did not change in either group, but in the SPH!B group, median DHT decreased (6.4 mg/dl (p = 0.05, sign rank test), a 32% decrease. No significant change in median DHT levels was seen in the PBO group (p = NS). It was not detectable before or after treatment. No change in serum levels of T, DHT, or E2 was observed. No correlation was seen between tissue DHT changes and clinical changes or the SPH!B-induced contraction of T epithelium.

Conclusions

6 months of SPH!B treatment results in a 32% decrease in prostate tissue levels of DHT (p = 0.001). Thus, SPH!B may function in vivo as an inhibitor of 5AR. Compared to the finasteride effect on 5AR, the fall in tissue T and 80% decline in tissue DHT levels, the SPH!B effect appears modest.