

The Effect of Epilobium Parviflorum in B.P.H., in Comparison to Tamsulosin and Prazosin

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ABSTRACT

This study reflects that there are good results were found by the use of (Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (Serenoa repens) - the same as Tamsulosin and Prazosin in treatments of patients with B.P.H., in which 145 patients (33.94%) were treated and improved from the (Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (Serenoa repens)-which is Herbal drugs, in the reduction of the size of the prostate in patients with B.P.H. This study reflects the same effect of Tamsulosin 140(32.75%) and Prazosin 142(33.25%) in relieving the prostate size. In the study we found that there is the same effects of this Herbal agent 65 (15.22%) - developed hypotension- and 120 patients (28.10%) complained from sexual dysfunctions as in Tamsulosin 105(24.60%) developed hypotension, and 105(24.60%) complained from sexual dysfunctions, and as Proposing 105(24.60%) exposed to hypotension and 105(24.60%) complained from sexual dysfunctions.

Keywords: Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (Serenoa repens)-Herbal drugs, Prazosin, Tamsulosin, B.P.H. (Benign Prostatic Hypertrophy), Reduction in size of prostate, Hypotension, Sexual dysfunctions..

INTRODUCTION

(Epilobium parviflorum) It is an herbaceous perennial plant belonging to the Onagraceae family, which might reach 80 cm in height. The stem is erect and densely covered with hairs, especially the lower part. The leaves on the lower and middle part stay oppositely, while on the upper part stay alternately, are lanceolate or oval. Flowering occurs in June-July. The loose and curly flowers are pale pink or pale purple. The fruit is a cylindrical capsule containing very small black-brownish, hairy, 0.5-2 mm long seeds.

Several species of the family occurs in temperate zones and might be very similar to each other. Sometimes they can be differentiated only through a microscopic examination. Hoary willow herb and related species grow on wet fields, marshlands, banks, in grove and wetland, and together with other weeds in large quantities on river meadows.¹

Its healing effect in the first stage of prostate gland disorders has been clinically proved. Regularly use of hoary willow herb can prevent prostatic hyperplasia. It reduces the number of night urinations and assures a peaceful rest. Having an anti-inflammatory effect, it can be used in case of cystitis and

bladder insufficiency, especially for women. It does not have any side effects, but in case of long-term use it might cause stomach and intestine problems. In traditional medicine it was used for prostate inflammation and enlargement.²

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The genus name derives from the Greek words "epi" meaning "upon" and "lobos" meaning "lobe", with reference to position of the petals above the ovary. The specific Latin name of "Parviflorum" means "small flowers".¹

The biological form of *Epilobium parviflorum* is hemicryptophyte scapose, as its overwintering buds are situated just below the soil surface and the floral axis is more or less erect with a few leaves.⁵

Stinging nettle is a plant. The root and above ground parts are used as medicine.

Stinging nettle is used for diabetes and osteoarthritis. It is sometimes used for urinary tract infections (UTIs), kidney stones, enlarged prostate (benign prostatic hyperplasia or BPH), muscle pain, and other conditions, but there is no good scientific research to support these uses.⁴

Stinging nettle contains ingredients that might decrease inflammation and increase urine output.⁵

Saw Palmetto

Saw palmetto is a native plant of North America, and it is still primarily grown in the United States in which is promoted as a dietary supplement for urinary symptoms associated with an enlarged prostate gland (also called benign prostatic hyperplasia or BPH), as well as for chronic pelvic pain, migraine, hair loss, and other conditions.⁶

Saw palmetto is commonly used in Europe and the United States as a treatment for enlarged prostate. Some small studies have shown benefit. However, several large studies do not show that saw palmetto reduces the size of the prostate or eases the urinary symptoms that come with an enlarged prostate.⁷ The best-documented herbal treatment for BPH is the oil of the berry of the saw palmetto tree. This herb is so well accepted in Europe that synthetic pharmaceuticals are considered alternative therapy for BPH. Saw palmetto offers two potential advantages over conventional drug treatment. The most obvious is that it usually causes no side effects. Another advantage is that saw palmetto does not change prostate-specific antigen (PSA) levels. Lab tests that measure PSA are used to screen for prostate cancer. The widely used drug Proscar can artificially lower PSA levels, which may have the unintended effect of masking prostate cancer.^{8,9}

Despite its popularity, the scientific evidence that saw palmetto is effective for prostate enlargement is inconsistent at best.⁹

Furthermore, while the prostate tends to continue to grow when left untreated, saw palmetto causes a small but definite shrinkage. In other words, it isn't just relieving symptoms, but may actually be delaying prostate enlargement. The drug Proscar does this too (and to a greater extent than saw palmetto) but other standard medications for BPH have no effect on prostate size.^{8,9}

Saw palmetto is used mainly for urinary symptoms associated with an enlarged prostate gland (also called *benign prostatic hyperplasia*, or BPH).⁹

Serenoa repens) and the roots of stinging nettle (*Urtica dioica*) are popular. During the last years numerous papers have been published which elaborated on the pharmacological activities and the clinical assessment of these herbal remedies. These investigations have not only broadened the scientific basis for the rational use of phototherapeutics but have also provided evidence for their therapeutic efficacy and favorable safety profile.^{10,11}

Tamsulosin, sold under the brand name **Flomax** among others, is a medication used to treat symptomatic benign prostatic hyperplasia (BPH) and chronic prostatitis and to help with the passage of kidney stones(9).

Tamsulosin is also used as an add-on treatment for acute urinary retention. People may void more successfully after catheter removal if they are taking Tamsulosin. People taking Tamsulosin also are less likely to need re-catheterization.¹⁰

Prazosin is an alpha-1 blocker medication primarily used to treat high blood pressure, symptoms of an enlarged prostate, and posttraumatic stress disorder (PTSD).¹¹

Prazosin is active after oral administration and has a minimal effect on cardiac function due to its alpha-1 adrenergic receptor selectivity. When Prazosin is started, however, heart rate and contractility can increase in order to maintain the pre-treatment blood pressures because the body has reached homeostasis at its abnormally high blood pressure .¹²

It is a less preferred treatment of high blood pressure.¹³

PATIENTS AND METHODS

1. The first group which are treated by only herbal drugs (*Epilobium parviflorum* and Nettle *Urtica Dioica* and Saw Palmetto (*Serenoa repens*) in Benign Prostatic Hypertrophy) were (330) patients.
2. Second group which were treated by Prazosin were (374) Patients.
3. The third group who treated by Tamsulosin were (329) Patients.

All patients were managed (investigated and treated) in Al-Hussein Teaching Hospital in Thi-Qar Governorate. All the patients which were investigated, which were complaining from polyuria and/ or attacks of urine retention and some complaining from supra-pubic pain, and Ultrasonic examination, general urine examinations were done for them as well as the blood pressure measured regularly by each of

their visit, and all those patients treated either by Herbal drugs (Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (Seronoa repens), or by Tamsulosin or by Prazosin, and all the patients were followed (Table 1).

Some of those patients complained from hypotension after treatment as confirmed by their history and clinical examination and measurement of their blood pressure (Table No 2). The others complained after treatment by all these agents from sexual dysfunctions (either erectile dysfunction or reduce desire) (Table No3).

All the patients which were managed by this study were (50-75 years) old.

Also each patient received this agent for 3 months and during these three months they followed and investigated completely. .

Dose and Duration of Treatment

We divided the total (427) patients into 3 groups:-

1. The First Group which were (145) patients treated by [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (Seronoa repens) (Saw Palmetto Complex as a capsules formulation) which were treated by TWO capsules per a day with plenty of water, for two months.¹⁴
2. The Second group which were (140) patients were treated by Tamsulosin, which given in a dose 0.4mg capsules per a day for two months also.¹⁵

3. The Third Group which were (142) patients, treated by Prazosin given either 2mg two times per a day/ or 5mg one capsule per a day and for two months.¹⁶

**Tables No: - 1, 2, and 3

***Paragraphs:-1, 2 and 3

And All the Patients were managed and followed in Al-Hussein Teaching Hospital in Thi-Qar Governorate.

RESULTS

In this study we found the number of patients with B.P.H which were treated by either HERBAL Drug [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (Seronoa repens)] were 145 patients (33.94%) developed good responses in reduction of prostate size when compared to those patients who treated with either Tamsulosin which were 140(32.75%) patients, and when compared to those who treated with Prazosin 142(33.25%) patients (Table 1).

Also we found in this study that all of these drugs causing reduction of blood pressure in different percentages, that the patients who were respond to [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (Seronoa repens)] were 65 (15.22%) patients were developed hypotension, while 67 patients (15.70%) were developed hypotension in those who were treated with Tamsulosin, and 105(24.60%) patients were developed hypotension in patients who were treated with Prazosin (Table 2).

Table 1: The distribution of reduction in size of prostate in patients treated either [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (Seronoa repens)]*, Tamsulosin or Prazosin

Age(years	50-55	56-60	61-65	66-70	71-75	Total
No of the patients who treated with Herbal Agents*	23(15.86%)	24(16.55%)	27(18.62%)		33(21.75%)	145(33.95%)
No of the patients who treated with Tamsulosin	18(12.85%)	27(19.28%)	25 (17(85%)		32(22.85%)	140(32.75)
No of the patients who treated with Prazosin	21(14.79%)	21(14.79%)	36(25.35%)	27(19.01%)	38(26.20%)	142(33.25)
Total					38(27.14%)	427(100%) **

*Herbal Agent.

**The total number of the patients are (427)

Table 2: The distribution of Hypotension in patients treated either [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (Seronoa repens)], Tamsulosin or Prazosin

Age	50-55	56-60	61-65	66-70	71-75	Total
No of the patients who treated with Herbal Agents*	11(16.92%)	20(30.76%)	10(15.38%)	16(24.61%)	8(12.30%)	65(15.22%)
No of the patients who treated with Tamsulosin	8(11.94%)	18(26.86%)	10(14.92%)	13(19.40%)	18(26.86%)	67(15.70%)
No of the patients who treated with Prazosin	27(25.71%)	25(23.80%)	14(13.33%)	22(20.95%)	17(16.19%)	105(24.60%)
Total						237(55.50%) ***

***The total number who developed hypotension after treatment

Table 3: The distribution of Sexual Dysfunctions in patients treated either [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (*Serenoa repens*)], Tamsulosin or Prazosin:-

Age	50-55	56-60	61-65	66-70	71-75	Total
No of the patients who treated with Herbal Agents*	17(14.16%)	35(29.16%)	28(23.33%)	20(16.66%)	20(16.66%)	120(28.10%)
No of the patients who treated with Tamsolasin	31(25.40%)	27(22.13%)	23(18.855)	20(6.40%)	21(17.21%)	122(28.57%)
No of the patients who treated with Prazosin	30(23.62%)	29(22.83%)	25(19.68%)	23(18.11%)	20(15.74%)	127(29.74%)
Total						369(86.41%) ****

****The total number who developed sexual dysfunction after treatment

We found also that these drugs causing sexual dysfunction, that those patients developed or complained from Sexual Dysfunctions (either desire or erectile faller, were 120 patients (28.10%) who treated with [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (*Serenoa repens*)] compared with: - 122 patients (28.57%) who were treated with Tamsulosin, and 105(24.60%) patients who were treated with Prazosin (Table 3).

Paragraph 1: Ultrasonography finding of Reduction in Prostrate size response to either HERBAL AGENT, PRAZOSIN OR TAMSULOSI

Paragraph 2: Distributions of HYPOTENSION in patients who responds either Herbal agents*. Prazosin or Tamsulosin

Paragraph 3: Distributions of SEXUAL DYSFUNCTION in patients who responds either Herbal agents, Prazosin or Tamsulosin

DISCUSSION

Benign prostatic hyperplasia (BPH), also called prostate enlargement, is a noncancerous increase in size of the prostate gland.¹⁷ The best-documented herbal treatment for BPH is the oil of the berry of the saw palmetto tree. This herb is so well accepted in Europe that synthetic pharmaceuticals are considered alternative therapy for BPH. Saw palmetto offers two potential advantages over conventional drug treatment.¹⁸ In this study we found that the improvement in prostate size in those patients who treated with HERBAL Drug [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (*Serenoa repens*)] where 145 patients (33.94%) which is significant result when compared with Tamsulosin which were 140(32.75%) patents, and with those who treated with Prazosin 142(33.25%). this result is accepted with Agbabiaka TB, Pittler MH, Wider B, et al. that currently saw palmetto is promoted as a dietary supplement for urinary symptoms associated with an enlarged prostate gland (also called benign prostatic hyperplasia or BPH), as well as for chronic pelvic pain, migraine, hair loss, and other conditions.¹⁹ and also accepted by Welliver C, Butcher M, Potini Y et al, that they found Nettle Urtica Dioica and Saw Palmetto causing reduction in prostates size and causing dilatation of prostatic urethra in patients with BPH.²⁰

Hypotension and sexual dysfunctions may be results as a side effects of all Herbal drugs and both Tamsulosin and Prazosin because most of studies found that these agents may affect directly cause relaxation of the corpus cavernosum.^{21,27} In which we found in this study the [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (*Serenoa repens*)] causing 65 (15.22%) hypotension and this is significant result when compared with Tamsulosin 67 patients (15.70%) were developed hypotension, and 140(32.75%) patents complained from hypotension those who were treated with Prazosin, in which Prazosin causing severe hypotension in non-hypertensive patients, this results accepted with Zhou Z, Zheng X, Wu J, Gao Z that they studied some herbal species like Saw Palmetto causing hypotension look like Prazosin ,Tamsulosin(22). Also this study also in agreement with Tasca A, Barulli M, Cavazzana A, et al that they found: The best-documented herbal treatment for BPH is the oil of the berry of the saw palmetto tree. This herb is so well accepted in Europe that synthetic pharmaceuticals are considered alternative therapy for BPH, but the hypotensive side effect may be more in patients who usually on antihypertensive drugs or in non-hypertensive patients.²³

The sexual dysfunctions happened in 120 patients (28.10%) who treated with [Epilobium parviflorum and Nettle Urtica Dioica and Saw Palmetto (*Serenoa repens*)] this study in agreement with Volpe MA, Cabelin M, Te AE, et al, and Romanian N. Rushi, Nelson Jeffry.et;- that they found there are some deficit in sexual desire and penile erecting.^{24,25} and also this study accepted by Champault G, Patel JC, Bonnard AM;- that they found some herbal drugs like plant *Serenoa repens* and Nettle Urtica Dioica used to improve prostatic hypertrophy although they impair the sexual activity of patients who used them,²⁶ and in this study we found also the sexual dysfunctions were in 122 patients(28.57%) in patients treated with Tamsulosin and this in agreement with Rosen RC, Wei JT, and also accepted with Braun M, Wassmer G, Klotz,²⁹ who said that the Tamsulosin effect direct relaxation of the corpus cavernosum in a dose-dependent fashion causing erectile dysfunctions.²⁷ and 127(29.74%) the sexual dysfunction developed in patients treated with Prazosin, this study accepted by Rhodes L, Primka RL, Berman C, et al, who found that most of alpha blocker causing sexual disorder either reduction of activity or reduced libido.²⁸⁻³⁹

CONCLUSION

We conclude from this study that there is a significant result of reduction of Hypertrophied prostate by using [Epilobium parviflorum and Nettle and Saw Palmetto] when we compare the results with both TAMSOLUSIN and/or PRAZOSIN.

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