



ADD-ON EFFECT OF PALASH PUSHPA KSHARA WITH TAMSULOSIN HYDROCHLORIDE IN THE MANAGEMENT OF MUTRAGHAT WITH SPECIAL REFERENCE TO BENIGN PROSTATIC HYPERPLASIA

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Abstract

Benign Prostatic Hyperplasia (BPH) is one of the most common urological disorders affecting elderly men, characterized by enlargement of the prostate gland and lower urinary tract symptoms (LUTS). In Ayurveda, the clinical features of BPH closely resemble Mutraghat, particularly Vatashtheela, which is described as an obstruction to the normal flow of urine due to aggravated Vata Dosha. Tamsulosin hydrochloride, an α_1 -adrenergic receptor blocker, is widely used for symptomatic relief but does not reduce disease progression or recurrence. Ayurveda offers several therapeutic interventions, among which Palash Pushpa Kshara possesses Ksharana (scraping), Lekhana (debridement), Shodhana (purification), and Mutrala (diuretic) properties that may complement modern therapy. The combination of Palash Pushpa Kshara with Tamsulosin may provide better symptomatic relief, improve urinary flow, reduce residual urine, and enhance the quality of life while minimizing the need for surgical intervention. This review highlights the potential role of this integrative approach in the management of BPH.

Key Words: Benign Prostatic Hyperplasia, BPH, Mutraghat, Vatashtheela, Palash Pushpa Kshara, Tamsulosin Hydrochloride, Ayurveda.

Introduction

Benign Prostatic Hyperplasia is a progressive enlargement of the prostate gland affecting men above 50 years of age. It leads to lower urinary tract symptoms (LUTS), including urinary frequency, nocturia, urgency, hesitancy, and incomplete bladder emptying. In Ayurveda, these symptoms closely resemble Mutraghat, particularly Vatashtila, described by Acharya Sushruta[.1]Tamsulosin remains one of the first-line pharmacological treatments because it relaxes prostatic smooth muscle and improves urinary flow. Nevertheless, it does not significantly reduce prostate size and may produce adverse effects. Recent Ayurvedic research has explored Kshara formulations as conservative management for Mutraghat, demonstrating symptomatic improvement comparable to alpha-blockers in some small clinical studies.

Aim

Study the add on effect of Palash pushpa kshara with Tamsulosin hydrochloride with special reference Benign prostatic Hyperplasia.

Objective

To study the additional effect of Palash pushpa kshara with Tamsulosin Hydrochloride in incomplete emptying, frequency, intermittency , urgency ,weak stream , straining, nocturia of Benign prostatic Hyperplasia

Ayurvedic Review

The samhita period (1500-1200 BC) is supposed to be the golden period of when the Ayurveda developed as a scientific and systematic system of medicine. In the samhitas detailed description regarding the anatomy, physiology, causative factors, classification, clinical features and management of various urological conditions explained

Sushruta Samhita

Acharya Sushrut is the father of shalyatantra (surgery) who had been given the detailed description regarding various diseases. Sushruta had explained in detail regarding anatomy, physiology and Pathophysiology of various diseases of Mutravaha srotas along with its hetu, purvaroop, roop, samprapti and chikitsa.[2] In the topic of Ashmari nidan Acharya Sushruta mentioned the location of basti and physiology of formation of urine. Acharya Sushruta has explained Mutraghat in uttar tantra in the 58th adhyay in this adhyay he mentioned 12 types of Mutraghat in which vatashtheela is mentioned.[3]

Nidan (causative factors)[4]

1. Vata prakopak ahar- vihar
2. Vegaavdharan
3. katu-tikt ahar
4. Adhyasan
5. Ajeernashana

Samprapti :-[5]

Mithyaahar and vihar /veg dharan/ abhighat



Apan vavu dusti



Sthanasanshray in between guda and basti



Ashtheelavat Ghana granthi forms



Vatashtheela/ Mutrashtheela

Samprapti Ghatak [6]

Dosh- Apan vayu

Dushya - Ras, Rakt, Swed, Mootra

Agni - Dhatwagni, Jatharagni

Sthana -Pakwashay

Adhishtan -Basti

Strotas -Mootravah strotas

Strotodushti - Sanga, Vimargagaman, Siragranthi

Sadhyashyata - Krichrasadhy

Chikitsa [7]

Ayurvedic approach

1. Nidan parivarjan.
2. Shodhan (Abhyang, Niruh basti, Uttarbasti, Virechan)
3. Shaman (Vatashamak chikitsa).
4. Mootrakrichhra chikitsa.

5. Rasayana

6. Pathyapathya

1. Nidan /Hetu parivarjan: Avoiding the exposure to causative factors i.e. nidan/ hetu
2. Shodhan: When doshas inside body raises and shows its signs and symptoms at this time shodhan karm is performed in which snehan followed by swedan is performed after this sneh virechan given.

Contents of the Uttarbasti tail:

Teel tail, madhu, saindhav and bheemseni karpur

Mechanism of action of Uttarbasti:

As it contains madhu and saindhav it is having properties of lekhan and ksharan karm it acts on the size of prostate glands and also improves urine flow rate. So many drugs are used in uttar basti but the media through which it is given is teel tail. So here probable mode of action is described. Teel tail is having vaat kaph shamak, mrudu, sukshma, sarv vikasi properties. It can be absorbed into deeper tissues and cells which results into increase in elasticity and proper healing of the tissue along with regeneration of tissues. Teel tail also helps in reducing the shoth over the paurush granthi by reducing vaat and kaph dosh as it is having vaat kaph shamak properties. The poorana of basti is done by tila taila according to Upasnehan Nyaya. The detrusor muscles which become hypertrophied or atonic in case of benign prostatic hyperplasia, are nourished & rejuvenated by tilataila. Hence frequency & urgency of micturition are minimized. Also it helps to improve force of urine stream.

Drug formulations[8]

1. Chandraprabha vati.
2. Gokshuradi guggulu
3. Pashanbhedadi churna
4. Dhanyagokshur ghrut
5. Palash pushpa kshar

Benign prostatic hyperplasia (BPH) As per Modern medicine

A few other names have been given to this condition like senile enlargement of the prostate, adenoma, adenomyoma, benign prostatic hyperplasia or hypertrophy and nodular hyperplasia.

Hormonal influence on the prostate - The principal hormone, which acts on prostate, is testosterone secreted by the Leydig cells of the testis under the control of luteinizing hormone (LH) of anterior pituitary, which is again under control of luteinizing hormone-releasing hormone (LHRH) of hypothalamus. An enzyme called 5 α -reductase, which is present in high concentration in prostate, converts testosterone to 5-dihydrotestosterone (DHT[9]). In old age serum oestrogen is increased which acts on the hypothalamus decreasing the secretion of LHRH and hence LH, causing ultimately decrease in serum testosterone level. Moreover, Oestrogenic steroids secreted by the adrenal cortex in aging male play a part in disrupting the balance between DHT and local peptide growth factors thus increasing the risk of benign prostatic hyperplasia.

Aetiology [10]

Though the pathology has been well established that it is a nodular hyperplasia, but its cause is not known definitely. It is a disease process with a well-defined age incidence. It is essentially a disease of old age, after 50 years. Only under the rarest circumstances it may occur in early life. Sir Benjamin Bordie's adage is very appropriate in this respect. He said, when the hair becomes grey and thin, when there forms a white zone around the cornea, at the same time ordinarily, I dare say invariably, the prostate increases in volume'

Two theories have been put forward to indicate the cause of such hypertrophy of the prostate as follows -

(I) The hormone theory

According to this theory it is caused due to disturbance in the ration of DHT and estrogen. Level of testosterone. Activation of alpha-1 adrenoreceptors, which increases bladder neck and prostate smooth muscle tone

(II) The neoplastic theory

Fibrous tissue proliferation of all the elements of prostate like fibrous, muscular, and glandular resulting in fibromyoeidoma of prostate which leads to formation of BPH.

Pathology:

BPH usually involves median and lateral lobes or one of them. It involves adenomatous zone of prostate, i.e. sub mucosal glands. Median lobe enlarges into the bladder. Lateral lobes narrow the urethra causing obstruction. Urethra above the verumontanum gets elongated and narrowed. Bladder initially takes the pressure burden causing trabeculations, sacculations and later diverticula formation. Enlarged prostate compresses the prostatic venous plexus causing congestion, called as vesical piles leading to haematuria. Incrimination of BPH as the source of haematuria before excluding other causes is termed as "Decoy prostate". Kidney and ureter: Backpressure causes hydroureter and Hydronephrosis. Secondary ascending infection can cause acute or chronic pyelonephritis. Often severe obstruction can lead to obstructive uropathy with renal failure. BPH causes impotence [11]

Clinical Features

- Frequency occurs due to introversion of sensitive urethral mucosa into the bladder or due to cystitis and urethritis.
- Urgency, hesitancy, nocturia.
- Overflow and terminal dribbling.
- Difficulty in micturition with weak stream and dribble.
- Pain in suprapubic region and in loin due to cystitis and hydronephrosis respectively.
- Acute retention of urine.
- Retention with overflow. High pressure chronic retention with functional obstruction.
- Impaired bladder emptying with its problems like cystitis, urethritis, stone formation and residual urine
- Renal failure.
- Per rectal examination shows enlarged prostate.
- Features of urinary infection like fever, chills, burning micturition [12]

Special Investigations

1. Examination of urine: Microscopic, culture and sensitivity
2. Examination of blood: Serum urea, N.P.N. and creatinine should be performed to assess renal function besides the usual blood count, haemoglobin estimation and E.S.R.
3. Estimation of prostate-specific antigen (PSA) [13] It is used as a marker for prostatic disease. It is more important in the diagnosis of carcinoma of prostate

The normal upper limit is about 4 nmol/ml.

In benign hyperplasia of prostate the level goes upto 4-10 nmol/ml

In localised cancer the level goes upto 15 nmol/ml

In metastatic cancer the level goes upto 30nmol/ml

4. Post void residual (PVR) estimation [14]

Although there is a high degree of extra individual variation in the PVR it may still provide valuable information with regard to bladder emptying. It may not distinguish adequately between bladder outlet obstruction and poor detrusor function. Greater than 300 ml considered a potential risk factor for upper urinary tract dilation and renal impairment.

5. Uroflowmetry [15]

Uroflowmetry is the electronic recording of the urinary flow rate throughout the course of micturition. It is a common non-invasive urodynamic test used in the diagnostic evaluation of patients presenting with symptom of BOO. Some considers Uroflowmetry most useful urodynamic technique for the assessment of obstructive uropathy.

6. Straight X-Ray

7. Excretory urography

8. Cystoscopy

9. Ultrasonography

10. Transrectal ultrasound scanning

Differential Diagnosis

1. Stricture urethra.

2. Bladder tumour,

3. Carcinoma prostate.

4. Neurological causes of retention of urine like diabetes, tabes dorsalis, disseminated sclerosis, Parkinson's disease. [16]

Complications of BPH

1. Retention of urine (Acute and chronic)

2. Recurrent urinary tract infections

3. Haematuria

Management of BPH

Treatment of BPH depends upon the severity of the disease. Patients with mild symptoms may be treated on conservative basis and if the disease progresses it should be treated on the basis of surgical intervention.

Conservative management

1. Regular prostatic massages may combat prostatic congestion.

2. To protect vesical tone the patient should be cautioned against excessive intake of fluid in a short period of time. Similarly alcohol should be avoided due to its diuretic effect. Also to avoid the fluid intake at evening and avoid caffeine and smoking.

3. Alpha 1 adrenergic blocking agents-which inhibit smooth muscle contraction of prostate. They reduce the bladder neck resistance so as to improve the urine flow

a) Short acting drugs - prazosin and indoramin

b) Long acting drugs are terazocin and doxazosin

c) Adrenoceptor blocking agent: Tamsulosin 0.2 to 0.4 mg OD for 12 weeks.

d) 5-alpha reductase inhibitor inhibits conversion of testosterone to dihydrotestosterone.

Surgical interventions

1. Suprapubic prostatectomy

2. Retropubic prostatectomy

3. Transurethral prostatectomy

4. Transurethral resection of prostat

Role of Palash Pushpa Kshara on BPH

Botanical Name: *Butea monosperma* (Lam.) Taub.

Family: Fabaceae.[17]

English Name: Flame of the Forest.

Common Names: Dhak, Tesu, Bastard Teak.

Synonyms: Palasha, Kinshuka, Brahmavriksha, Yajniya, and Raktapushpaka.

The Kshara prepared from Palash Pushpa possesses:

Ksharana ,Lekhana ,Shodhana ,Chedana Bhedana ,Mutrala properties

According to Ayurvedic pharmacology:[18]

Rasa: Katu, Tikta

Guna: Laghu, Ruksha

Veerya: Ushna

Vipaka: Katu

Pharmacological Characteristics

Palash Pushpa Kshara (alkaline preparation prepared from the flowers of *Butea monosperma*) is used in Ayurveda for Mutraghat (Vatassthila), which is considered comparable to Benign Prostatic Hyperplasia (BPH) based on similar urinary symptoms. Although its action in BPH has not been conclusively established in clinical studies, the following mechanisms are proposed from Ayurvedic principles and available pharmacological evidence[19]

1. Mutrala (Diuretic) Action

Promotes urine formation and facilitates smooth urine flow.help reduce urinary hesitancy, straining, and the sensation of incomplete bladder emptying.

2. Shothahara (Anti-inflammatory) Action

Butea monosperma contains flavonoids and other phytochemicals with anti-inflammatory properties. reduce inflammation around the prostate and lower urinary tract, thereby improving urinary symptoms.

3. Lekhana Action

Kshara possesses Lekhana (scraping) properties in Ayurveda.

Traditionally believed to help reduce abnormal tissue overgrowth and Kapha-mediated obstruction. This is an Ayurvedic concept and has not been proven to shrink the enlarged prostate in clinical studies.

4. Vata-Kapha Shamana

BPH (Vatassthila/Mutraghat) is considered a disorder involving aggravated Vata and Kapha.

Palash Pushpa Kshara helps pacify these doshas, reducing urinary obstruction and improving bladder emptying according to Ayurvedic theory.

5. Antioxidant Action

Butea monosperma exhibits antioxidant activity that protect prostatic tissue from oxidative stress, a factor implicated in the progression of BPH.[20]

6. Mild Antimicrobial Action[21]

Help reduce the risk of associated urinary tract infections, which can worsen lower urinary tract symptoms in some patients.

Role of Tamsulosin Hydrochloride on BPH : [22]

Generic Name: Tamsulosin Hydrochloride

Chemical Formula: $C_{20}H_{28}N_2O_5S \cdot HCl$

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Molecular Weight: 444.98 g/mol

Drug Class: Selective α_1 -Adrenergic Receptor Antagonist

Brand Names: Flomax®, Urimax®, Tamsukem®, Contiflo®, Veltam®

Route of Administration: Oral

Mechanism of Action

Tamsulosin selectively blocks postsynaptic α_1A - and α_1D -adrenergic receptors located in the smooth muscles of the prostate, bladder neck, and prostatic urethra. Blockade of these receptors causes relaxation of smooth muscle, decreases bladder outlet resistance, improves urinary flow, and relieves lower urinary tract symptoms without significantly affecting detrusor contractility. Owing to its receptor selectivity, it has minimal influence on systemic blood pressure.

Pharmacokinetic Profile

Tamsulosin is well absorbed following oral administration, with a bioavailability approaching 100%. Peak plasma concentration is attained within 4–7 hours after administration. It is extensively metabolized in the liver by CYP3A4 and CYP2D6 enzymes and is primarily excreted through the kidneys. The elimination half-life ranges from 9–15 hours, allowing once-daily dosing.

Therapeutic Uses

Tamsulosin Hydrochloride is indicated for:

Benign Prostatic Hyperplasia (BPH)

Lower Urinary Tract Symptoms (LUTS)

Acute urinary retention (following catheterization)

Medical expulsive therapy for distal ureteric calculi

Functional bladder outlet obstruction

Dose

Recommended Dose: 0.4 mg orally once daily, preferably after the same meal each day. The dose may be increased to 0.8 mg once daily if the clinical response is inadequate.

Adverse Effects

Tamsulosin is generally well tolerated. The commonly reported adverse effects include dizziness, headache, orthostatic hypotension, abnormal ejaculation (retrograde ejaculation), nasal congestion, fatigue, and rhinitis. Rarely, it may cause syncope and intraoperative floppy iris syndrome during cataract surgery.

Contraindications

Tamsulosin should be used cautiously in patients with severe hepatic impairment, marked orthostatic hypotension, or known hypersensitivity to the drug. Concomitant administration with potent CYP3A4 inhibitors requires careful monitoring.

Pharmacological Characteristics

1. Uroselective α_1A Receptor Blockade: Tamsulosin selectively relaxes prostatic and bladder neck smooth muscle while producing minimal systemic vascular effects.
2. Improvement in Urinary Flow: It significantly increases maximum urinary flow rate (Q_{max}) and decreases post-void residual urine volume.
3. Rapid Symptomatic Relief: Improvement in urinary symptoms is observed within the first week of treatment in many patients.
4. Better Safety Profile: Compared with older α -blockers, tamsulosin causes less orthostatic hypotension due to its receptor selectivity.
5. Medical Expulsive Therapy: Tamsulosin facilitates spontaneous passage of distal ureteric stones by relaxing ureteric smooth muscle.

Rationale for Combination Therapy

Palash Pushpa Kshara and Tamsulosin may act synergistically. Palash Pushpa Kshara Tamsulosin Reduces Kapha obstruction Relaxes smooth muscle Pacifies Vata Improves urine flow Anti-inflammatory Reduces LUTS Diuretic Improves bladder emptying Corrects pathology Provides symptomatic relief

The reviewed literature indicates that Tamsulosin Hydrochloride is effective in providing symptomatic relief in patients with Benign Prostatic Hyperplasia (BPH) by improving urinary flow rate and reducing lower urinary tract symptoms (LUTS). However, its effect is mainly symptomatic, with minimal influence on prostate size or disease progression. Ayurvedic studies and classical references suggest that Palash Pushpa Kshara possesses Mutrala (diuretic), Shothahara (anti-inflammatory), Lekhana (scraping), and Srotoshodhana (channel-cleansing) properties, which may help relieve urinary obstruction and improve bladder emptying. Experimental studies on Butea monosperma have also demonstrated anti-inflammatory, antioxidant, and antimicrobial activities that may support its use in urinary disorders. The available clinical evidence suggests that the add-on use of Palash Pushpa Kshara with Tamsulosin Hydrochloride may produce better therapeutic outcomes than Tamsulosin alone. Reported benefits include: Greater reduction in International Prostate Symptom Score (IPSS). Improvement in urinary flow rate (Qmax). Reduction in post-void residual urine (PVR). Decrease in urinary frequency, urgency, nocturia, and hesitancy. Better quality of life with good tolerability and no major adverse effects reported. Overall, the reviewed evidence suggests that combining Palash Pushpa Kshara with Tamsulosin Hydrochloride has the potential to enhance the management of Mutraghat (BPH) by providing both symptomatic relief and supportive management of the underlying pathological process. [23]

Combining Palash Pushpa Kshara with Tamsulosin may provide complementary benefits:

Tamsulosin	Palash Pushpa Kshara
Relaxes prostatic smooth muscle	Reduces inflammation
Improves urinary flow.	Supports urinary function
Rapid symptom relief.	May improve long-term tissue health
No reduction in oxidative stress.	Antioxidant action

The combination : Effects

- 1) Delay surgery in selected patient
- 2/ Improve urinary frequency, urgency, and nocturia.
- 3) Enhance urinary flow rate (Qmax).
- 4) Reduce post-void residual urine (PVR).
- 5) Improve International Prostate Symptom Score (IPSS).
- 6) Improve quality of life.
- 7) Potentially reduce inflammation associated with BPH.

Probable Mode of Action

Palash Pushpa Kshara:

Remove Srotorodha (obstruction) Pacify aggravated Vata Reduce local inflammation Improve urinary flow Enhance bladder emptying[24]

Tamsulosin:

Relaxes prostatic smooth muscle Decreases urethral resistance Improves urinary symptoms Together they provide better therapeutic outcomes than either therapy alone.

Discussion

Benign Prostatic Hyperplasia (BPH) is one of the most common causes of lower urinary tract symptoms (LUTS) in elderly men. In Ayurveda, the clinical features of BPH closely resemble Mutraghat, particularly conditions characterized by obstruction to urine flow due to vitiation of Vata Dosha. Tamsulosin hydrochloride, an α 1-adrenergic receptor blocker, is widely used as a first-line treatment for BPH because it relaxes the smooth muscles of the prostate and bladder neck, thereby improving urinary flow. However, it does not significantly reduce prostate size and prolonged use may be associated with adverse effects such as dizziness, orthostatic hypotension, and ejaculatory dysfunction.

The combination of Palash Pushpa Kshara with Tamsulosin may provide a synergistic therapeutic effect. While Tamsulosin offers rapid symptomatic relief through smooth muscle relaxation, Palash Pushpa Kshara may act on the underlying pathological process by reducing inflammation, improving urinary function, and potentially slowing disease progression. This integrative approach may enhance symptom relief, improve quality of life, and reduce dependence on long-term pharmacotherapy.

Conclusion

Benign Prostatic Hyperplasia is a progressive disease affecting elderly men and significantly impacts quality of life. Ayurveda correlates BPH with Mutraghat (Vatashtheela). Palash Pushpa Kshara possesses Ksharana, Lekhana, Shodhana, and Mutrala properties that complement the action of Tamsulosin hydrochloride. The add-on use of Palash Pushpa Kshara with Tamsulosin may provide superior symptomatic relief, improve urinary flow, reduce post-void residual urine, and enhance quality of life compared with Tamsulosin alone. Further clinical studies with larger sample sizes are required to validate this integrative therapeutic approach. Overall, the integration of Palash Pushpa Kshara with Tamsulosin Hydrochloride appears to be a promising complementary approach in the management of Mutraghat with special reference to Benign Prostatic Hyperplasia.

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