



BENIGN PROSTATIC HYPERPLASIA: AN OVERVIEW AND ROLE OF AYURVEDA IN ITS MANAGEMENT

Navaneeth Krishnan N¹, Muhammed M V²

¹Assistant Professor, Dept. Of Kayachikitsa, Vaidyaratnam Ayurveda College, Thaikkattussery, Kerala.

²House Surgeon, Vaidyaratnam Ayurveda College, Thaikkattussery, Kerala.

Abstract

Benign prostatic hyperplasia (BPH) is a common cause of lower urinary tract symptoms (LUTS) in aging men, worsening their quality of life. It is a histological diagnosis of the proliferation of smooth muscle, epithelium, and stromal cells within the transition zone of the prostate. Autopsy studies have shown that BPH increases in prevalence with age beginning at age 30 and reaching a peak prevalence of 88% in men in their 80s. In India BPH found in 40% cases presenting with lower urinary tract symptoms in the age of 60-69 years. Though prostatectomy is the ultimate option of treatment, conservative management is preferred always. Ayurvedic medicines also have a role in symptomatic relief and improve the quality of life in such patients. This article is a review of Ayurvedic management to BPH supplemented with a case report of BPH treated with Ayurvedic medicines where remarkable reduction in prostate size and drastic relief in symptoms were got.

Introduction

Prostate is an accessory gland of male reproductive system. It is composed of glandular tissue embedded in fibro muscular stroma. It surrounds the first 3 cm of the urethra. Human prostate gland weighs about 40 gram and a volume of around 25 ml. It consists of 20-30 separate glands which open separately into the urethra. Prostate secretes prostatic fluid which is emptied into the prostatic urethra. Prostatic fluid helps to maintain sperm motility, clotting of semen and lysis of coagulum. Prostatitis, BPH and prostate cancer are the common diseases of prostate gland.¹

Benign prostatic hyperplasia (BPH) is a common cause of lower urinary tract symptoms in old aged people, worsening their quality of life. In India BPH found in 40% cases presenting with lower urinary tract symptoms (LUTS) in the age of 60-69 years². Although BPH rarely causes symptoms before age 40, the occurrence and symptoms increases with age.

Materials and methods

1. Disease review

BPH affects both glandular epithelium and connective tissue stroma to variable degrees. BPH typically affects the submucous group of glands in the transitional zone, forming a nodular enlargement. Eventually, this overgrowth compresses the PZ glands into a false capsule and causes the appearance of the typical 'lateral' lobes. When BPH affects the subcervical CZ glands, a 'middle' lobe develops those projects up into the bladder within the internal sphincter³. Sometimes, both lateral lobes also project into the bladder, so that, when viewed from within, the sides and back of the internal urinary meatus are surrounded by an intravesical prostatic collar.

The symptoms of BPH arise through two mechanisms - static (hyperplastic prostatic tissue compresses the urethra) and dynamic (increased adrenergic nervous system and prostatic smooth muscle tone). Both mechanisms increase resistance to urinary flow at the level of the bladder outlet incomplete emptying, urinary hesitancy and intermittency. Chronic bladder outlet obstruction leads to bladder decompensation and detrusor under-activity, manifesting as (starting and stopping while voiding), a weakened urinary stream, and urinary retention.

Volume of the prostate starts to increase by 2.4cm per year from the age of 40 years. The process begins in the periurethral zone and involves both glandular and stromal tissue to a variable degree of hyperplasia.

BPH is diagnosed through careful evaluation of LUTS, physical examination, digital rectal examination (DRE), urinalysis, IPSS survey (The International Prostate Symptom Score), Ultrasound and adjunctive tests like estimation of Prostate-specific antigen (PSA), Postvoid residual volume of urine (PVRU) and Uroflowmetry. Malignant transformations have been found in 9.51% of patients with BPH and often these changes are predicted by the presence of markers such as a rise in the levels of prostate specific antigen (PSA) and acid phosphatase. A number of medical treatments are available to alleviate symptoms, delay disease progression, and lessen the chance of needing surgery for BPH in mild to moderate cases. Trans Urethral Resection of the prostate (TURP) or Prostatectomy is the standard line of therapy in patients who do not respond to pharmacotherapy.

2. Ayurvedic review

In Ayurvedic texts, various Mutrarogas and their management have described. Mutrakhata, Mutrakrichra, Mutra ashmari are the main diseases effecting Mutravaha srotas. In Mutrakhata, obstruction is a major feature. BHP has resemblance with Vatasthila, a type of Mutrakhata (urinary retention). In this condition, aggravated Vatadosa (Apanavata) gets localized in between Vasti (Urinary bladder) and Guda (Rectum and anus), produces a dense fixed firm glandular swelling called Vatashtila owing to Vinmutrasanga (obstruction of faces and urine) with Adhamana (Tympanitis) and ruja (pain) in vastipradesha (suprapubic region). Due to the similarity in sign and symptoms as well as anatomical consideration this condition bears a close resemblance with BHP. When trying to study BPH in an Ayurvedic point of view, it is important to understand the nidana (causes), samprapti (pathogenesis), purvaroop (predisposing symptoms), roopa (symptoms) and chikitsa (treatment) of mutrakhata.

i) Nidana:- Intake of ruksha ahara excessively, intake of teekshna oushadha, habitual intake of madya, intake of food before previous meal is digested, indigestion and excessive exercise are the common nidana of muthrakhata.

ii) Purvarupa:- The premonitory symptoms are distention of the bladder, severe pain in and around the site of stone, urine emitting the smell goat, difficulty of elimination of urine, fever and loss of appetite¹¹.

iii) Rupa- BHP has resemblance with Vatasthila, a type of Mutrakhata and its symptoms are retention of urine, faeces and flatus, excruciating pain in the bladder¹².

iv) Chikitsa of Mutraghata : The patient of muthrakhatha can be treated with kashaya, churnam, sarpi, payas, lehyam, kshara, kashaya vasthi, sneha vasthi and utara vasthi¹³. Accordingly, Bruhathyadi kashaya, Punarnavadi kashaya, Varanadi kashaya, Vrukshadanyadi kashaya, Kalyana ksharam, Hinguvachadi churnam, Vaiswanara churnam, Thraikandaka ghrtam, Bruhathyadi ksheera pakam, Dashamula harithaki, Manibadra gulam are the commonly used medicines in muthrakhatha. In kerala traditional practice, kashaya kalpana is commonly used in all diseases but, toya kalpana is more preferred in muthraja vikara.

3. Case report :-

A case report of a patient who was treated with the above mentioned medications and found remarkable changes The frequency distribution of prostate volume among men in different age groups below the age of 50 years is 26.9+/- 4.3cc and between 50 to 60 years it is 32.4 +/- 12.7. In the following case, patient is 35years and having prostate volume 34cc.

A 35 years old male patient consulted in outpatient department of vaidyaratnam ayurveda college with chief complaints of frequency, urgency, of urination, suprapubic pain during micturition, feeling of incomplete voiding after micturition since 6 months. **On History of present illness** patient revealed the history of suprapubic pain during micturition for past 6 months, and till that he felt absolutely well and good. With in last 6 months, he started experiencing mild supra pubic pain, increased frequency and urgency for urination during initial time. And Gradually incomplete voiding after micturition and need of force assistance for micturation was also noticed. Patient have undergone allopathic treatment and no relief was observed. **On personal history** its reported that he is a non smoker and used to work in an environment with no known exposure to chemicals, fumes, dust and other occupational allergens and he have no known history of allergy to any drug.

Diagnostic assessments- The investigation data include grade 1 fatty liver disease and grade 1 prostatomegaly with significant residual urine volume. Blood RE and urine RE are normal with PSA 0.77ng/ml.

Blood RE	Normal
Urine RE	Normal
Prostate volume	34 cc
Residual urine volume	106 cc

Therapeutic interventions- Vrukshadanyadi toyam (take 15 grams of Vrukshadanyadi churnam and make it into a loose potali and immerse in 3 litres of water and boil it and reduce to half (1.5 Litre). This medicated water given warm frequently from 6 am to 6 pm. Kalyanaksharam mixed with Hinguvachadichurnam in 1:5 ratio are taken as 1 teaspoon, 1 hour before food, twice in a day for therapeutic intervention.

Medicine administration schedule

From 01/06/2020 to 30/06/2020:

- 1) Vrukshadanyaditoyam -taken warm frequently from 6 am to 6 pm.
- 2) Kalyanaksharam (1 part) mixed with hinguvachadichurnam (5 parts) - 1 teaspoon, one hour before food, twice in a day.

From 01/07/20 to 31/7/20:

1) Vrukshadhanyadi toyam only

From 01/08/20 to 31/08/20:

1) Vrukshadhanyadi toyam - taken warm frequently from 6 am to 6 pm.

2) Kalyanaksharam (1 part) mixed with Hinguvachadichurnam (5 parts) - 1 teaspoon, one hour before food, twice in a day.

From 01/09/20 to 30/09/20:

1) Vrukshadhanyadi toyam only

From 01/10/2020 to 30/10/2020:

1) Vrukshadhanyadi toyam - taken warm frequently from 6 am to 6 pm.

2) Kalyanaksharam (1 part) mixed with Hinguvachadichurnam (5 parts) - 1 teaspoon, one hour before food, twice in a day.

Along with above medications, patient strictly advised to avoid spicy foods, restriction of water intake after 7 pm, increase vegetable diet and to void urine timely.

Final outcome

	<u>BT</u>	<u>AT</u>
PROSTATE VOLUME	34 cc	29.7 cc
RESIDUAL URINE VOLUME	106ml	4 ml

As per frequency distribution of prostate volume among men in different age groups below the age of 50 years is 26.9 +/- 4.3cc and in between 50 to 60 years the prostate volume is 32.4 +/- 12.7. In the following case, patient is 35 years and having prostate volume 34cc. After taking Ayurvedic medications for five months, it is found that a remarkable change occurred in both volume of prostate and in residual volume of urine in the bladder.

viii) Discussion- BPH is commonly treated with vata anulomana, kapha hara and shopha hara drugs. All the medicines used in this case are of these nature. Vrukshadhanyadi kashaya is explained in Carakasamhitha suthra sthana. Vrukshadhanyadi toya has the property of expelling more urine from the bladder. This will help to reduce the amount of residual volume of urine in the bladder. Hinguvachadi churna is explained in the Ashtangahrudaya gulma chikitsa and kalyana kshara is explained in Ashtangahrudaya arsho roga chikitsa. Hinguvachadi churna and kalyana kshara (mixing in 5:1 ratio) is having kaphahara, vata anulomana and pachana in properties. Vata anulomana and kaphahara property of this combination will help to remove the sthorodha of muthravaha srotas. More over it is also kapha hara and shopha hara. These properties may help to reduce the inflammation of the prostate, thereby reducing the size of prostate.

Conclusion-

BPH is a disease related to the aging process. Common modern medicines widely used to alleviate the symptoms of BPH are with many adverse effects. Surgery is the ultimate option of treatment of BPH. Considering these points, Ayurvedic remedies have come into the forefront to treat BPH and also to improve the quality of life of BPH patients. This article will help to endorse a step towards the use of the Ayurvedic medicine in the management of BPH. However, more number of case studies are required for scientific validation

References

1. SRB's manual of surgery, 4th edition, page 1121.
2. McNeal J. (1990). Pathology of benign prostatic hyperplasia. Insight in to Etiology. Urol Clin North Am, 17, 477-486.
3. Word by word copy of Bailey & Love's Short Practice of Surgery, Published by Norman Williams et al., 2008 - Page 1345
3. Rao CN, Singh MK, Shekhar T, Venugopal K, Prasad M R, Saleem K L, Satyanarayana U. (2004). Causes of lower urinary tract symptoms (LUTS) in adult Indian males. Indian J Urol, 20, 95-100.
4. Bailey & Love's short practice of surgery-26th edition, page 1342.
5. Roehrborn CG, Schwinn DA. (2004). Alpha1-adrenergic receptors and their inhibitors in lower urinary tract symptoms and benign prostatic hyperplasia. J Urol, 171, 1029-1035
6. Unnikrishnan R, Almassi N, Fareed K. (2017). Benign prostatic hyperplasia: Evaluation and medical management in primary care. Cleve Clin J Med., 84(1), 53-64.
7. Srikantamurthy. K.R. vol-2 Ashtangahrudaya, Varanasi: choukhambaorientalia, 3rd edition, 2000.p.85.
8. Srikantamurthy. K.R. vol-2 Ashtangahrudaya, Varanasi: choukhambaorientalia, 3rd edition, 2000.p.86.
9. Srikantamurthy. K.R. vol-3 Susruthasamhitha, Varanasi: choukhambaorientalia, 2nd edition, 2005.p.379.
10. Madhavanidaana 30/1
11. Srikantamurthy. K.R. vol-2 Ashtangahrudaya, Varanasi: choukhambaorientalia, 3rd edition, 2000.p.85.
12. Su. Utt. 58/7-8
13. Sushruta S, Anantram S. (2001). Mutraghata Pratishedh Adhyay, Ashmari Chikitsa Adhyaya, Chikitsasthan Adhyay. Chaukhamba, Varanasi 1st edition, 237.