

CASE STUDY

A Case Study on Internal Administration of *Tilakanda Kshara*, in the Management of Benign Prostatic Hyperplasia

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ABSTRACT

Lower urinary tract symptoms [LUTS] are quite commonly encountered in elderly males. Out of various aetiologies of LUTS, Benign Prostatic Hyperplasia has high prevalence. It is a benign neoplastic condition, where there is proliferation of smooth muscles and epithelial cells within prostate transition zone. This condition interferes in the daily activity of individuals and create a negative impact on the quality of life. Modern management of BPH includes both medical management and surgical interference. *Mutraghata* is described by all the *Acharyas* in Ayurvedic literatures. 12 *mutraghata*s are mentioned by *Acharya Susrutha*. Line of management of *mutraroga* as per *Acharya Susrutha* includes *snehana*, *swedana*, *virechana*, *utharabasti*, *kshara prayoga* etc. The present clinical case is the Internal administration of *Tilakanda kshara* with *dadhimastu* as mentioned in Hareetha samhitha 30th chapter – “*Mutrarodha chikitsa adhyaya*”.

Key Words *Benign Prostatic Hyperplasia, Mootraghata, Tilakanda kshara*

Received 2024 Accepted 11th 2024 Published 10th November 2024

INTRODUCTION

BPH is characterized by enlargement of prostate where in there is an increased number of epithelial and stromal cells in the periurethral area of the prostate and thus correctly referred to as hyperplasia, otherwise named as senile enlargement of prostate gland. It can also be referred as Adenoma or adenomyoma. BPH is the most common non-cancerous growth in men, and its occurrence rises with age. As men age, their risk of developing Benign Prostatic Hyperplasia (BPH) increases¹. Age has a major role in the progression of benign prostatic hyperplasia, although the underlying pathophysiology

is yet unknown². The prevalence of histologic BPH is approximately 20% in 41–50 years, to 50% in 51–60 years, and to >90% in 80 years. Diagnosis is based mainly on symptoms. Clinical assessment of benign prostatic hyperplasia is done by scoring of symptoms like weak stream, hesitancy, urinary frequency, urgency, nocturia, incomplete emptying, intermittency, using International Prostate Symptom Score (IPSS). Other investigations like cystoscopy, transrectal ultrasonography, urodynamics, or other imaging studies can also be used to confirm the diagnosis. Treatment options for BPH include watchful waiting, medical and surgical interventions.

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Age, dietary factors, genetics, hormonal alterations, metabolic derangements are shown to influence the development of BPH. Thus, it enables the physician to identify those at risk of disease progression and those who can be managed more conservatively to reduce morbidity and improve quality of life³.

Discussions on urological issues have been prevalent since ancient times. That might be the cause of the fact that the vast majority of historical documents present an impressive and unambiguous image of their classification symptomatology, complications, and management. Mainly 13 *mutraghata* rogas are mentioned in Ayurvedic classics. There is no single disease which show all the features of benign prostatic hyperplasia. In Ayurveda, the management of Benign Prostatic Hyperplasia is done by adopting the principles of *mutrakrcchra*, *mutraghata* chikitsa, *mutravigadharanajanya vikara* chikitsa and *grandhi* chikitsa. Treatment plan of the above conditions include *avapeedaka snehapana*, *swedana*, *virechana*, *vasthi*, *kshara prayoga etc*⁴. Apart from a discerning

conservative treatment, the current case study evaluates the effect of internal administration of *Tilakanda kshara* in cases of BPH.

CASE REPORT

PATIENT INFORMATION

A 56-year-old male patient visited OPD of Dept of *Salyatantra*, Govt. Ayurveda College, Thiruvananthapuram, with complaints of incomplete emptying, increased frequency of micturition especially during night (10-15 times), weak stream, strong and sudden desire to urinate for 01 year. Patient had no other co- morbidities.

Preliminary clinical examination including per rectal examination was done and prostate enlargement noted. PSA test was within normal. Further on USG abdomen and pelvis, revealed prostatomegaly.

CLINICAL FINDINGS AND INVESTIGATIONS

Clinical symptoms were assessed based on the IPSS scoring system (table 1)

Table 1 IPSS SCORE SYSTEM

Urinary symptoms	Not at all	Less than 1 in 5time	Less than half the time	About half the time	More than half the time	Almost always
Incomplete emptying	0	1	2	3	4	5
Frequency	0	1	2	3	4	5
Intermittency	0	1	2	3	4	5
Urgency	0	1	2	3	4	5
Weak stream	0	1	2	3	4	5
Straining	0	1	2	3	4	5
Nocturia	None	1	2	3	4	5

Total score: 1-7 mildly symptomatic / asymptomatic

8-19 moderately symptomatic

20-35 more severely symptomatic

USG abdomen and pelvis

The USG reports suggested prostatomegaly with prostrate size 56 cc and RUV – 121ml

PSA test – 3.88 ng/ ml (fig 1)

THERAPEUTIC INTERVENTION

500mg of *tilakanda kshara* with 5ml *dadhimastu* (*supernatant liquid portion of curd*) given as *anupana*

internally twice daily after food for a period of one month and the effect of the medicine was assessed.

OBSERVATION AND RESULTS

Clinical assessment of IPSS scoring before and after administration of drugs showed findings which is mentioned in table 2.

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Table 2 IPSS Assessment

Criteria	Before treatment	After treatment
Incomplete emptying	5	1
Frequency	5	1
Intermittency	0	0
Urgency	5	3
Weak stream	5	0
Straining	0	0
Nocturia	5	1

Investigations

Investigations taken before and after study showed findings as

USG Abdomen and pelvis

USG reports before and after study are shown in fig 2 and fig 3

Size of prostate gland Before Treatment - 56cc

After treatment - 45cc

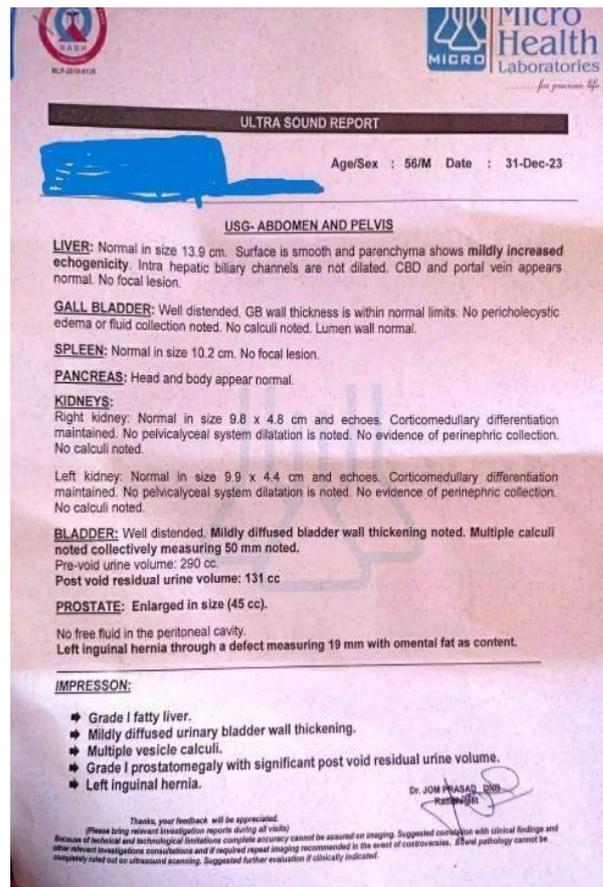


Figure 2 USG – after study

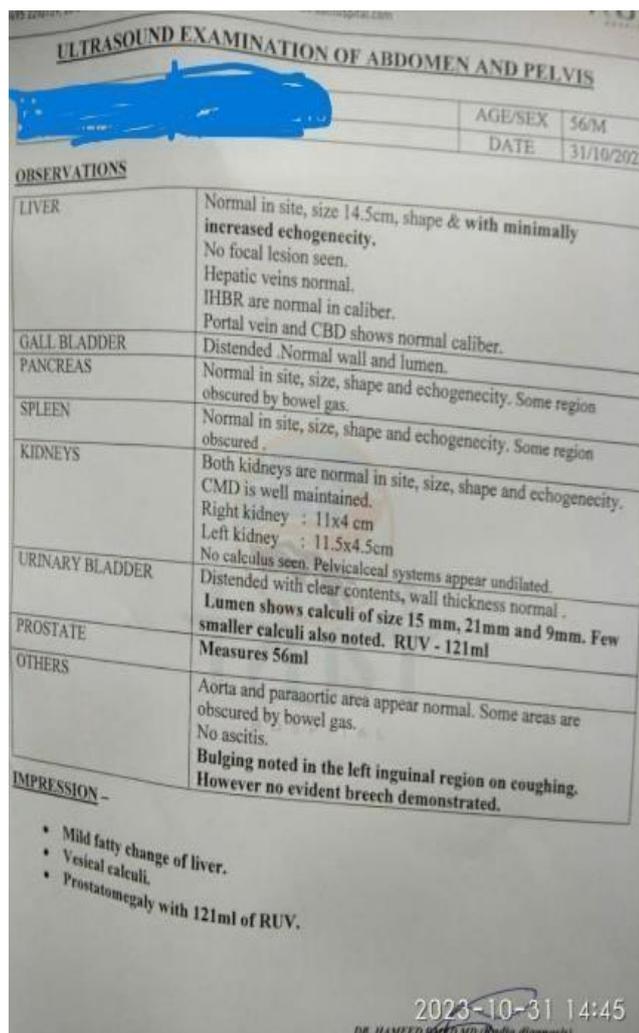


Figure 1 USG- before study



Figure 3 PSA report

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DISCUSSION

BPH is a common condition affecting elderly men, significantly impacting their quality of life. In *Ayurvedic* medicine, BPH is related to *Mutraghata*, a condition characterized by obstruction of urine flow, and *Mutrakruchra*, which is marked by difficulty in urination. The underlying causes of BPH, known as *nidanas*, are similar to those of *Mutraghata* and *Mutrakruchra*, and are attributed to an imbalance of the *vata dosha*, specifically *apana vaigunyam*, which disrupts the normal flow of urine. This understanding highlights the importance of addressing the root causes of BPH to restore healthy urinary function and improve overall wellbeing⁵. *Kshara*, a versatile and potent agent, reigns supreme among *sastras* (surgical instruments) and *anu sastras* (accessory instrument), offering a range of functions including excision, cutting, scraping, and balancing the three *doshas*. As per *acharya* Vagbhata *kshara* belongs to *lavana varga*, which is having *lavana* as predominant *rasa* and does actions like destroying adhesions (*bandha*). *Kshara* comes in two forms - natural and artificial, it helps in eroding excess growth. This property, known as *ksharana*, allows for the effective treatment of abnormal tissue growth. *Ksharas* characteristics, including, *sukshma* (subtle), *vyavayi* (penetrating), and hot potency, contribute to its effectiveness. *Ushna veerya* of *kshara* along with the *snigdha guna* of *tila* helps in *vata anulomana*. *Amla* and *Madhura rasa* of *dadhi mastu* can enhance the *vata samana* action and thus address the *apana vata vaigunyam* causing the pathology of the disease. In this study during the intake of *tila kshara* along with *dadhi mastu* act as *vata kapha samana* and *srotoshodana* in action and helps in removal of metabolic waste products.

Drug is effective in reducing the storage symptoms like frequency of micturition, intermittency, urgency and nocturia. Properties like *Ksharana* and *Lekhana* which can manage the increased mucosal thickening of urethra causing urinary flow obstruction, where else *Vilayana* and *Lekhana* address urethral obstruction due to prostate enlargement. The *Kapha-Vata*-pacifying and *Srotovishodana* action can enhance efficacy through *dadhi mastu's* properties. *Bhinathyasu Mala* nature of the drug can help in elimination of *mala* which is the metabolic waste products. Hence the obstruction is being managed thus resulting in reducing the frequency of micturition and this can eventually address the burden of nocturia. The *mutrala* (diuretic action) of the drug can reduce the residual urine volume additionally; its *Vatanulomana* property regulates *Apana Gathi*, thereby regulating urine flow thus reducing urination frequency. The combined effect of these properties leads to symptom relief. Weak stream of urination and straining during micturition are the voiding symptoms. Incomplete emptying of urine can be considered as the post voiding symptom. The drug exhibits beneficial effects on *Apana Vata* which regulates downward energy and promotes normal urine flow. *Kapha vilayana* along with the *shodana* property of *kshara* absorbs and eliminates excess fluids, reducing obstruction. *Srotosodhana* cleanses and clears the urinary channels, ensuring unhindered urineflow.

Increased amount of residual urine volume can lead to infection and finally ending up in cystitis like condition. The administration of *Kshara* alters the urinary pH, shifting it towards an alkaline state, thereby helping to neutralize urine acidity caused by infections.¹⁰ Excess residual urine volume leads to stagnation of urine which eventually increases the

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viscosity of urine. This stagnant urine can lead to growth of pathogenic organisms. *Ksharas sodhana* and *soshana* properties can prevent the formation of infection and inflammation due to the residual urine volume. Also, the *vilayana* action of the *kshara* helps to reduce inflammation.

Moreover, *tila's* pharmacological properties include anti-tumor activity, which helps to reduce abnormal tissue growth⁹. Pino Resinol, a lignan present in the sesame plant, exhibits in vitro chemoprevention.¹¹ The prominent chemical constituent, Sesamolin, in *tila* possess anti-inflammatory and antioxidant properties, which play a vital role in mitigating the severity of BPH. The antioxidant properties of Sesamolin enable the scavenging of free radicals, thereby shielding the prostate tissues from further damage and inflammation¹². By harnessing the potent anti-inflammatory and antitumor effects of Sesamolin, *tila* may effectively combats the progression of BPH and alleviating symptoms. Previous studies also propose a fascinating hypothesis that, *Kshara* can lead to impotency, which is linked to decreased testosterone levels. Building on this insight, studies speculate that *Kshara's* anti-testosterone properties might reduce size of the prostate gland, providing relief from symptoms¹³. These combined comprehensive effect of *kshara* improves overall quality of life and thus promote overall urinary health

CONCLUSION

(BPH) is a prevalent affliction among aging men, significantly contributing to Lower Urinary Tract Symptoms (LUTS). While modern management options include conservative methods and surgical interventions leveraging latest technological advances, these approaches have limitations. Surgical

modalities, in particular, pose significant risks for elderly patients, including erectile dysfunction, retrograde ejaculation, severe sepsis, and hematuria. Furthermore, these procedures can be costly. In this context, an Ayurvedic approach offers a promising alternative. Given that BPH typically affects individuals in their later years (*vridhavastha*), characterized by *vatika* predominance, the use of *vatakaphahara* drugs like *tilakshara*, combined with *dadhi mastu*, offers an effective management strategy. This case report demonstrates that *tilakshara* which readily available and easily prepared, is a cost-effective solution for BPH management, highlighting the potential of Ayurvedic medicine in addressing this common condition. By synergistically addressing these key aspects, *tila Kanda kshara* and *dadhi mastu* work together to restore healthy urinary function and alleviate the discomforts of BPH.

IEC NO. - 682

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