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A CASE STUDY OF KANCHNAR GUGGULU AND KARKATIBEEJADI CHURNA IN THE MANAGEMENT OF BENIGN PROSTATIC HYPERPLASIA (BPH)

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ABSTRACT :

Benign Prostatic Hyperplasia (BPH) also called Benign Prostatic Enlargement (BPE) is a non-malignant enlargement of prostate gland, caused by the excessive growth of prostatic nodules. BPH is a major senile disorder of obstructive uropathy, described in *Ayurveda* classic as one type of *Mutraghata* (urinary disorders). Twelve types of *Mutraghata* reflect the symptoms of retention, incomplete voiding, dribbling, hesitancy, incontinence of urine. These basically presented the features related to the lower urinary tract symptoms (LUTS) and Bladder Outflow Obstruction (BOO) and can be correlated with Benign Prostatic Hyperplasia (BPH) in modern prevalence. The overall incidence rate of BPH is 15 per 1000 men per year. The conservative treatments have been mentioned to relieve the obstructive uropathy by reducing prostate size and enhancing the tone of urinary bladder musculature in contemporary medical science. Similarly, in *Ayurveda* also various researches are going on to find out a suitable treatment option to manage *Mutraghata*. In present article, the reassessment of *Kanchnar Guggulu* and *Karkatibeejadi churna* has been done in the management of Benign Prostatic Hyperplasia. They helped to reduce the size of prostate gland and gave symptomatic relief.

Key words:*Kanchnar Guggulu*, *Karkatibeejadi churna*, Benign Prostatic Hyperplasia, *Mutraghata*

INTRODUCTION: Various references are available in *Ayurvedic* classics about "*Vatashtila*" which is one of the 12 types of *Mutraghata*[1]. *Mutraghata* means *mutravrodha* when *dushita vata* gets localized in between *basti* and *guda*, produces a dense fixed firm glandular swelling known as *Vatashita* leading to *Vinmutrasanga* with *adhamana* and *ruja* in *Basti pradesha*[2]. This condition can be correlated to Benign Prostatic Hyperplasia (BPH) can be managed by conservative and surgical treatment which includes Anti-androgen therapy, Alpha blockers, Aromatase inhibitors, Prostatectomy, Laser therapy, Microwave Treatment.

Success rate of surgery is about 90% in case of acute and chronic retention whereas in patients with mild symptoms only benefited with 65% by surgical management. Prostatectomy leads to impotence in 5% of cases, retrograde ejaculation 50%, severe sepsis 5%. As the patients are fairly old, these complications are liable to occur in early post-operative days. Even conservative therapy has disadvantages like administering anti-androgen therapy cause impotence.

Aromatase inhibitors which are widely used have led to certain side effects like lassitude, depression, gynaecomastia. In this situation, it is possible that *Ayurveda* will be able to provide a treatment that is natural and free from any adverse effects. *Acharya Sushruta* has mentioned successful treatment of *Mutraghata* with *Kashaya*, *Kalka*, *Ghrita*, *Kshara*, etc preparations of different drugs[3]. This research work was carried out with the ultimate aim of finding the best treatment available in *Ayurveda* for BPH.Considering the drawbacks of the treatments available, there is a need of easy and effective treatment in the management of BPH. Present case study was planned as per management principles to evaluate the clinical efficacy of *Kanchnar Guggulu* (KG) and *Karkatibeejadi churna* (KBC) in the management of *Mutraghata* with reference to BPH.

AIMS AND OBJECTIVES: To evaluate the efficacy of *Kanchnar Guggulu* (KG) and *Karakatibeejadi Churna* (KBC) in the management of Benign Prostatic Hyperplasia.

MATERIAL AND METHODS:

- **Source of the data :** Study is carried out in OPD of *Shalya Tantra*, University College of *Ayurved* Hospital, Dr. Sarvepalli Radhkrishnan Rajasthan *Ayurved* University.
- **Type of Study :** Single Case Study

DIAGNOSTIC CRITERIA:

1. Subjective Parameters :

Diagnosis was based on the clinical signs and symptoms of the disease, which on International Prostate Symptoms Score (I-PSS)[4]

2. Objective Parameters :

- USG
- PSA
- Urine (R & M)

Selection Of Durgs :

All the drugs were collected from nearby regions in the *Hemant Ritu*. Wet drug was dried in sunlight and then was properly formulated at a local pharmacy. The drugs were collected after proper identification.

Preparation Of Drugs:

1) *Kanchnar Guggulu*[5] - All the raw materials except *Guggulu* were taken in rationale proportion and were crushed in the form of powder. The *Guggulu* of same quantity was dissolved in water properly. Then the previously formed powder was pulverized in this solution as a doughy mixture. Small pellets like tablets of the weight of 500mg were prepaid and get dried under direct sunlight.

S. No.	Name	Botanical Name	Family Name
1.	*Kanchnar*	*Bauhinia purpurea*	Caesalpinioideae
2.	*Haritaki*	*Terminalia chebula*	Combretaceae
3.	*Vibhitaki*	*Terminalia bellerica*	Combretaceae
4.	*Amalaki*	*Emblica officinalis*	Euphorbiaceae
5.	*Pippali*	*Piper longum*	Piperaceae
6.	*Maricha*	*Piper nigrum*	Piperaceae
7.	*Shunthi*	*Zingiber officinale*	Zingiberaceae
8.	*Varuna*	*Crataeva religiosa*	Capparidaceae
9.	*Sukshma-ela*	*Elettaria cardamomum*	Zingiberaceae
10.	*Dalchini*	*Cinnamomum zeylanicum*	Lauraceae
11.	*Tejpatra*	*Cinnamomum tamala*	Lauraceae

12.	*Guggulu*	*Commiphora mukul*	Burseraceae

2) *Karkatibeejadi Churna*[6] - All the raw materials – *Karkatibeej*, *Saindhav lavana* and *Triphala* were taken in equal quantity, dried, crushed into powder form and mixed well.

S. No.	Name	Botanical Name	Family Name
1.	*Karkati*	*Cucumis sativus*	Cucurbitaceae
2.	*Saindav Lavana*	Rock salt	-
3.	*Vibhitaki*	*Terminalia bellerica*	Combretaceae
4.	*Amalaki*	*Emblica officinalis*	Euphorbiaceae
5.	*Haritaki*	*Terminalia chebula*	Combretaceae

Case Report :A male patient of age 50 years working as a lecturer in government school was complaining of –

- Dribbling micturition
- Incomplete emptying of bladder since 6 months
- Nocturia 6-7 times
- Urgency of micturition

No H/O – DM / HTN / Koch's / Bronchial Asthma
No H/O – Any drug allergy
P / M / H – Nil
P / S / H – Haemorrhoidectomy before 3 years
P / H – Bowel – irregular bowel habit
Bladder – Dribbling micturition and weak stream
Sleep – disturbed by nocturia
Appetite – normal
Addiction – Alcoholic since 15 years
Diet – Spicy and fermented food regularly
O / E – G.C. fair
Temparature – Afebrile
Wt – 80 kg
B.P. – 130 / 90 mm Hg
S / E – RS – Chest B/L clear
CVS – S1, S2 normal
CNS – Conscious and oriented
P / A – soft and non-tender

INVESTIGATIONS

- USG Pelvis
- PSA
- Urine (R & M)

Reports suggested and confirmed BPH as prostate wt. was 38 gms and post residual urine volume was 140cc with normal PSA value and urine R&M

Treatment Plan:

Treatment was planned as follows :

1) Kanchnar Guggulu – 500 mg twice daily orally with luke warm water
2) Karkatibeejadi Churna – 3 gm twice daily orally

Anupana – koshna jala

RESULT: The above treatment was given for the 15 days and advised for a follow up. After 15 days the symptoms were reduced as per I-PSS. The same treatment was continued for 2 months.

The USG Pelvis was done after 2 months. Reports after 2 months had dropped down to 36 gms and post residual urine volume to 80cc, and also all the symptoms of the patients are decreased considerably.

Pathya-Apathya:

- **Pathya -** Patient is encouraged to have cucumber (*karkati*) in the diet in form of salad.
- **Apathya -** Use of excessive alcohol and spicy food avoided in the diet.

OBSERVATIONS :

Patient relieved symptomatically and there was significant decrease in prostate weight and post residual urine volume.

Table : Parameters before and after treatment

BEFORE TREAMENT	AFTER TREATMENT
Prostate Weight – 38 gm	Prostate Weight – 36 gm
Post residual urine volume – 140 cc	Post residual urine volume – 80 cc
I-PSS Score – 21	I-PSS Score – 13

DISCUSSION : The disease *Vatastheela*, one of the 12 *Mutraghata* disorders, can be correlated with BPH on the basis of its *sthana* (place), which is between *Guda* and *Basti* , and also on the basis of the correspondence of the symptoms and signs,

Vishamashana was found in the majority of the patients. *Ama* is the chief causative factor in the pathogenesis of *vatastheela* as described by *Charaka*, and *Vishamashana* is responsible for *Ama* formation which leads to making the firm background for disease. Disturbed sleep was found in almost all the patients , which might be due to the increased frequency of micturition at night. Constipation was found in most of the patients, which might be due to faulty dietary habits such as V*ishmashana*.

In the context of *Utpatti* of *Basti* and *Guda* it has been told that, they are the *Prasada Bhaga* of *Rakta* and *Kapha*. This *Prasada Bhaga* gets *Pachymana* by *Pitta* and in this process *Vata* helps Pitta to potentiate the action. *Mootrasthila* occurs in between *Basti* and *Guda* region and this phenomenon has influence on the disease manifestation of *Mootrashteela* also. The epithelial budding and glandular morphogenesis in BPH are similar to those in embryonic tissue, a process generally forbidden in adult organs, leading to the suggestion that BPH is the result of a "reawakening" of the embryonic inductive potential of prostatic stroma in adulthood[7]. It is very much likely to support the concept that the incidence of *Ashthila* is promoted by embryonic precursor after vitiation of *Kapha* and *Rakta Dosha*. These *Dosha* get aggravate in old age and develop *Kaphaja Granthi* like growth. *Rakta* also gets involve in pathogenesis, as the aging prostate maintains a high level of dihydrotestosterone (DHT), as well as a high level of androgen receptor; thus, the mechanisms for androgen dependent cell growth are maintained.

As the pathology of BPH, the fact revealed that the prostatic growth factor was found through sequence analysis to be basic Fibroblastic Growth Factor (FGF). In addition to FGF, other heparin-binding growth factors (fibroblastic growth factor), Transforming Growth Factors (TGF-13), and Epidermal Growth Factor (EGF) have been found in hyperplastic BPH tissue. It is likely that growth factors play some role in the pathogenesis of BPH. It is quite possible that *Kanchnar Guggulu* may work to overcome the fibroblastic growth factor (FGF) or some other.

Most of the drugs present in *Kanchnar Guggulu* have *Katu Rasa*, *Ruksha* and *Laghu Guna*, *Ushna Virya*, *Madhura Vipaka* and the property of *Kapha-Vata Hara*. Major proportion of *Madhura*, *Tikta* and *Kashaya Rasa* containing drug is also present. The properties like *Rasayana*, *Vayasthapana*, *Medhohara*, *Krimighna*, *Lekhana*, *Shothaghna* and *Vata-Kapha Shaamana* are helpful to act on various changes in BPH. The tremendous action may be due to anti-androgenic, anti-inflammatory, antibiotic, anti-mutagenic

and anti-fibroblastic properties of *Kanchnar Guggulu*.

By use of *Karkatibeejadi churna*, highly significant relief was found in frequency of micturition, hesistancy, and dysuria, while significantly result was observed in the symptoms of urgency and nocturia. *Karkatibeejadi Churna* contains properties like *Tridoshaghna*, *Mutral*, *Anulomana*, *Mutraawarodhahara* and it is by the virtue of these *gunas* that it causes decrease in prostate size and increase in urine flow rate. Another probable reason for such relief may be the effect of the *Triphala* by resolving the hormonal imbalance. As mentioned by the *Acharyas*, *Karkatibeejadi Churna* helps to reduce the size of prostate gland and give symptomatic relief.

CONCLUSION:

The excellent action of *Kanchnar Guggulu* and *Karkatibeejadi Churna* might have been due to their synergistic effect both on hormonal and physiological level due to their anti-androgenic, anti-inflammatory, anti-biotic, anti-mutagenic, anti-spasmodic, anti-fibroblastic and other growth factors. The mode of action of these formulations is also over the psychological component of the patients. The stress relieving elements, for both on brain and urinary sphincters are present to rationalize the action. The phyto-estrogens present in these formulations may play a role in reducing and inhibiting the prostate size.

The *ayurveda* drug should be selected depending upon the symptoms and the cause of the disease. With the help of *ayurveda* treatment one can easily manage the symptoms of the BPH.

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