The Dual Action of Varunadi Kwath in Renal Calculi as well as Uterine Fibroid- A Case Study

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Abstract Mutrashmari (Renal Calculi) is very common disorder. This distressing urinary disorder affects around 5-7 million people in India [11]. The chances of recurrence are always high and the surgery having disadvantage of high cost. The available treatment in modern science is only conservative and surgical in this present study an effort was made to evaluate the role of Varunadi Kwath in Mutrashmari. The main aim of this particular study was inclined towards the disintegration, dissolution, dislodgement and expulsion of renal calculi. The contents of Varunadi Kwath are easily available, economical and are easy to administer, which are having Anti-inflammatory, Diuretic and Antilithic properties. A case of renal calculi with uterine fibroid was diagnosed and the treatment was given for a period of 9 months. The size of the calculus was studied by periodic ultrasonography; the symptoms Mutrakruchrata (Dysuria), Shula (Pain in abdomen), Sadaha Mutrata (Burning micturition) are significantly reduced within less than 45 days and total expulsion of calculi in less than 180 days.

Keywords Mutrashmari; Varunadi Kwath; Renal Calculi; Uterine Fibroid

1. Introduction

Renal calculi are the third most common disorders of the urinary tract [5]. An alarming rise in the incidence of renal calculi in recent years has provoked to explore a treatment of significant effect without any adverse side effect. As much as 10% of men and 3% of women have calculi at least once in their lifetime. At least 1/1000 of Indian population needs hospitalization due to urinary calculi. The highest incidence of calculi occurs between the ages of 30 to 50 years [7] [8].

In Ayurveda, Mutrashmari is a Mutraavrodhajanya vikara and is considered as one of the ‘Astamaha gadas’. Formation of Mutrashmari, according to Sushrut, is due to Srotovaigunya resulting from dushita Kapha localized in Basti in conjunction with pradushita vata and pitta [10].

Mutrashmari (Renal Calculi) is associated with symptoms like excruciating pain during micturition, sudden stoppage of urine flow, blood stained urine, twisting and slitting of urine, aggravation of pain during running, jolting etc., go on in accordance with symptoms of modern science [11] [5].
1.1. Need of Study

In Renal calculi patient experiences so much Pain, Ureteric colic, Haematuria, Recurrent UTI which disturb his daily routine work. Many modern surgical procedures like are available which are expensive and disadvantages of high expenditure and disease recurrence. Despite advancement in modern techniques, the recurrence rate of calculi is approximately 50% within 5 to 7 years [8]. Disease recurrence may cause acute renal injury and a decrease in renal function. This is unwanted effect.

So there is need to find such medicine which is an inexpensive, economical, effective and easily available which has no adverse effects. The aim of treatment is not only elimination or to remove the disease but also meanwhile avoid the recurrence by prakriti-vighatana chikitsa. The ingredients of Varunadi kwath are minimum expensive and easily available which is very economical for the society.

2. Aim and Objective of the Study

To evaluate the role of Varunadi Kwath in renal calculi by assessing the symptomatic relief, reduction/expulsion of Renal calculi.

Case History

A case detail of 26 year old female married patient diagnosed with Renal calculi with uterine fibroid.

C/o-

Pain in abdomen, Painful, Dribbling and Burning Micturition Intermittent since 15 days.
Flatulence since 1 month.
No H/o DM/HTN/any other major illness/any operative procedure.

H/o past illness-

One day patient suddenly noticed severe pain in the abdomen. The patient consulted nearby physician and got temporary relief. Later she developed same symptoms with burning and painful micturition after 7 days. So the patient was advised to undergo USG (Abdomen + Pelvis) which showed Left kidney having calculus of 13 mm in lower calyx. Uterus shows a lower posterior echogenic fibroid of 13 mm (dated 29/04/2013).

F/H/O not significant

Diet history reveals that her food intake was irregular in terms of quality and quantity due to her stressful work as a housewife.

O/E-
Pulse- 80/min B.P – 140/90 mm of Hg
Bowel- Constipation
Urine- sadaha mutrata (Burning Micturition), mutradhara sanga (Interrupted flow of urine), saruja mutrapravrutti (Painful Micturition), Udara pradeshi vedana (Pain in abdomen).

Tongue – Saam (Coated) Touch- Anushna (Afebrile)
Eyes-No pallor Built – Madhyam (Moderate)

S/E-
RS- AEBE clear
CVS- S1S2 NAD
CNS- Conscious oriented

Menstrual H/O: 3-4 days
28-30 days

P/A- No organomegalgy
Tenderness elicited in the left side of the lumbar region and left side of renal angle.

As advised, Patient underwent Ultrasonography of the abdomen pelvis which revealed left kidney showing a calculus of 13 mm in lower calyx. Uterus shows a lower posterior echogenic fibroid of 13 mm with normal features

Dushta Srotas Parikshan-
Mutravaha- sadaha and saruja mutrapravrutti, sanga, Udara pradeshi vedana.
Artavaha- Uterine Fibroid
Vyadhi Vyavacched-
Mut rakruchra
Mutraghata
Shoola

Vyadhi Vinischya- Mutraashmari (Renal Calculi with Uterine Fibroid)

**Intervention**

<table>
<thead>
<tr>
<th>Treatment Given</th>
<th>Dose</th>
<th>Duration</th>
<th>Follow up</th>
<th>Advise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varunadi Kwath</td>
<td>15 ml bd with equal quantity of water</td>
<td>9 months (180 days)</td>
<td>Every 15 days after administration of medicine till 45 days then every month upto 9 months of treatment.</td>
<td>2-3 litres of water per day</td>
</tr>
</tbody>
</table>

**3. Observations and Results**

The patient treated with Varunadi Kwath has shown good effect on calculi. All the symptoms like Pain in abdomen, Burning and Dribbling Micturition were reduced markedly within 15 days. In next follow up i.e. 30 days, Dribbling micturition had totally disappeared. Burning micturition and Pain in abdomen also were reduced significantly. In next 45 days, USG (Abdomen + Pelvis) was done which showed size of calculi was reduced by 2 mm and fibroid was reduced by 1 mm which was shown in previous report. The treatment was continued for complete expulsion of calculi. So again USG was repeated after 9 months of treatment. The USG showed no e/o renal calculi or uterine fibroid (dated 31/01/14). This shows Varunadi Kwath had significant result on renal calculi of above 10 mm as well as in uterine fibroid.

**Results in USG**

<table>
<thead>
<tr>
<th>Scanning Date</th>
<th>Impression</th>
</tr>
</thead>
<tbody>
<tr>
<td>29/04/2013</td>
<td>Left kidney shows calculus of 13 mm in lower calyx without complication.</td>
</tr>
<tr>
<td></td>
<td>Uterus shows a lower posterior echogenic fibroid of 13 mm</td>
</tr>
<tr>
<td>11/06/13</td>
<td>Left kidney shows a calculus of 11 mm in lower calyx without complication.</td>
</tr>
</tbody>
</table>
Uterus shows a fibroid of 19x12 mm in posterior cervix

31/01/14 No findings or evidence suggestive of calculi or uterine fibroid

Effect on Signs and Symptoms

Table 3: Effect on Signs and Symptoms

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>0’ day</th>
<th>1st F/U 15 days</th>
<th>2nd F/U 30 days</th>
<th>3rd F/U 45 days</th>
<th>3rd F/U 90 days</th>
<th>4th F/U 180 days (Completion of treatment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain in abdomen</td>
<td>+++</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dribbling micturition</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dysuria</td>
<td>++</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Burning Micturition</td>
<td>+++</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

4. Discussion

4.1. Probable Mode of Action

The ingredients of Varunadi Kwatha possess properties like of Chedana, Bhedana, Lekhana, Tridoshgna, Mutrala, Mutrakruccrahraha, Anulomana, and Krimigna which helps significantly in Mutrashmari treatment. The ingredients of the formulation pacify Kapha Dosha by virtue of their Ruksha Guna, Katu Vipaka and Ushna Virya. The Vatanulomana, Shothahara and Mutrala properties helps to relieve pain and Shotha. Thus in total this formulation has the capacity to disintegrate the pathogenesis of the disease ‘Ashmari’. [3] [6] [12]

Table 4: Mode of Action

| Varuna            | 1) Acts as urinary antiseptic, anti - inflammatory and diuretic.  
|                   | 2) It is Sleshmahara shows Lekhana property due to Ushna Virya.  
|                   | 3) **Lupeol**, a chemical constituent of Craeteva Nurvala (Varuna) has shown antiurolithiatic activity, normalizes specific gravity, pH, ketone, blood, urobilinogen and protein in urine. It has shown to minimize the tubular damage and reduced crystal deposition in kidneys. Lupeol reduces the risk of stone formation by preventing oxalate and crystal-induced per oxidative changes in renal tissues and increase the urinary excretion of oxalate. Varuna has shown nephroprotective activity by decreasing the concentration of blood nitrogen and creatinine[1]. |
| Gokshur           | 1) Diuretic.  
|                   | 2) It contains Potassium nitrite in rich quantity which acts as a urine alkalizer. The synergistic action is enhanced when yavakshar is combined with Gokshur and appreciating the results in disintegration of calculus.  
|                   | 3) Due to the prevention of urinary supersaturation, inhibition of mineralization of stone forming constituents, normalization of cellular function in renal oxidative stress, correction of crystalloid colloid balance as well as the beneficial effects such as ant inflammatory, antimicrobial, diuretic, antispasmodic, litholytic, and anticalcifying activities. |
| Shunthi           | 1) Being Madhura vipaki and Ushna virya, these properties help in shamana of vata dosha. Deepan property helps in further check of ama at jatharagni level. |
| Yavakshara        | 1) Yava Kshara is having pH 11.73. Thus it helps to neutralize the acidic media and prevent calculus formation. As yavakshara is alkaline in nature which changes the pH of urine, this helps in preventing the hyper concentration of the urine.  
|                   | 2) By the properties of Kshara like Rooksha, Laghu, Teekshana, Shigragami, it will reduce the chance of nidus formation as well as it reduces the growth of the stone by inhibiting the binding property of Kapha Dosh[4] [13]  
|                   | 3) Kshar has its specific action on fibroid to destroy uterine fibrroid due to prabhava and bhedana. |
According to Ayurveda the pathogenesis of uterine fibroid involves Mamsa, Meda and Rakta Dosha. The bhedan, kapha mamsa meda lekhan, Vatanuloman, Kledaghna, Deepan pachan, shothhar and Vatakapha shamak action of Varunadi Kwath has shown effect in fibroid. [6]

5. Conclusion

This study has shown highly significant result in reducing symptoms within 45 days like Shula (Pain in abdomen), Saruja mutrata (Painful micturition), Sadaha Mutrata (Burning Micturition), Mutradharasang (interrupted flow of urine) and complete expulsion of calculi within 180 days. Moreover it has acted on complete dissolution of uterine fibroid.

References


