A study to ascertain the effect of berberis vulgaris, hydrangea, cantharis, lycopodium clavatum and staphysagria in renal calculi

Dr. Rajveer Singh Rathore, Dr. Anil Aggarwal, Dr. E Siva Rami Reddy, Dr. Parveen Sharma, Dr. Charanjeet Singh and Dr. PK Chakraborty

Abstract
Renal calculi (kidney stones, nephrolithiasis, kidney calculi, renal stones) is a condition in which one or more stones are present in the pelvis or calyces of the kidney or in the ureter. The objectives of this study are to study the efficacy of homeopathic medicine in the management of Renal Calculi and to study the homeopathic approach to avoid surgery and recurrence of stone formation. Thirty cases were selected through random sampling. The cases were studied keeping the individualistic by following the clinical case taking method. Most commonly age group 30-45 with 47%. About 5 remedies were efficacious in the treatment of renal calculi. Out of 30 cases 5 cases recovered, 23 improved and 2 cases did not improved. From this study it is evident that majority of cases of Renal calculi can be effectively relieved by homeopathic constitutional treatment. Homeopathy by addressing all aspect of the individual and their complete set of symptoms offers better treatment for patients suffering from Renal calculi. Homeopathic remedies to begin with reduce the frequency of acute exacerbations, reduce the intensity of symptoms and reduce the relapse and chances of recurrence and their by remove stones. They reduce dependence over other and also surgery.

Keywords: homeopathy medicines, renal calculi

Introduction
Stone disease is the cause of significant morbidity in our society. It is estimated that approximately 12% of the population will have a renal stone at some point in their lives. In the United States and other industrialized countries, kidney stones are more common in men than in women. 12% of men and 5% of women will suffer from renal stones by the age of 70 years. A patient with a history of stones has 50% risk of developing another stone within 5-10 years. Moreover in selected patients repeat stone formation rates may approach 80% over their lifetime. The prevalence of renal calculi in children and adolescents occur less commonly than in adults [1-2].

The incidence of urinary calculus increases with age, attaining a maximum in the 30-45 years. After the age of 60 years, the prevalence decreases. The incidence of renal calculi varies in different countries depending upon environmental conditions of the area. In India the incidence of urolithiasis is higher in Northern states, compared to that of southern states. Kidney stones are more frequently seen in warmer climate and during summer. This may be due to dehydration and increased concentration of urine, which is one of the causes of calculus formation. Easy availability and more consumption of vegetable like tomato & spinach, which are rich source of calcium leads to calculus formation. Above all many people drink bore well water, which contains more minerals. So there is a tendency for calculus formation [3].

Homoeopathy is based on the claim that illnesses can be treated using substances that produce similar symptoms. Mostly, these have been heavily diluted in water or alcohol so that none or only a few molecules of the active ingredient are present. Kidney stone disease is a crystal concretion formed usually within the kidneys. It is an increasing urological disorder of human health, affecting about 12% of the world population. It has been associated with an increased risk of end-stage renal failure. The etiology of kidney stone is multifactorial. The most common type of kidney stone is calcium oxalate formed at Randall's plaque on the renal papillary surfaces. The mechanism of stone formation is a complex process which results from several physicochemical events including supersaturation, nucleation, growth, aggregation, and retention of urinary stone constituents within tubular cells. These steps are modulated by an imbalance between factors that promote or inhibit
urinary crystallization. It is also noted that cellular injury promotes retention of particles on renal papillary surfaces. This article is an endeavor to explain its adequacy dependent on later methodical surveys on kidney stones. Electronic databases were looked for orderly audits/investigation regarding the matter. Forty- one articles satisfied the consideration/rejection criteria. It is concluded that the best environmental clinical evidence for homoepathic medicines available up to date and permit positive endorsements for its use in clinical practice [4-9].

A multicentric, randomised, double-blind, placebo-controlled trial was conducted. Patients having symptomatology like Lycopodium clavatum were enrolled after screening and repertorisation as per the inclusion and exclusion criteria. During acute renal colic, despite group allocation, the patients were either prescribed the indicated homoepathic medicines or conventional medicine. The analysis was carried out with an intention-to-treat approach, and missing values were handled using Last Observation Carry Forward method. There was no statistical significance between the groups (P = 0.31) in reference to the number of cases in which stones expelled during the trial. The mean size of single stone expelled was 9.4 ± 4.9 and 13.9±2.2 in Verum and Placebo groups, respectively (P=0.12). There was also no significant difference in the mean size of multiple stones; in Verum group (10.1±5.3) and Placebo group (16.1±9.1) (P=0.11). For assessment of pain and dysuria, Visual Analogue Scale was used, and a statistically significant difference was found between the groups (P=0.039) for pain, and positive trend for Homeopathy was noted for dysuria. A verified sympton syndrome of Lycopodium clavatum has been observed. Future studies with pragmatic study design and individualistic Homoeopathy can be undertaken to assess the effectiveness of treatment in urolithiasis [10-17].

The history of stone disease implies that many diverse factors might be involved in its causation. An analysis of epidemiological evidence, however, diminishes the importance of geographical location and ethnic origin and emphasis the part played by environmental factors, like climate, dietary, life style, occupation, water available for drinking, presence or absence of trace elements in foodstuff and drinking water. The modified natural tendency depends, according to Hahnemann, upon the unrearrated miasms of ‘psora, syphillis, and sycosis’. When it does not originate in these it is mostly composed of remnants and sequel of the acute affections which so largely go to make up drug diseases and poisoning; but we not infrequently see both factors combine to undermine the health, thus presenting a proportionately deeper rooted disease just that much harder to combat. In such cases antipsoric remedies very much excel all others in efficacy [18].

An uninfected calculus which comes to rest in ureter may produce a considerable degree of obstruction and there is some dilatation of ureter above stone. At site of arrest the ureter is thick walled and there is periureteric edema. Complete obstruction to flow of urine if prolonged leads initially to dilatation of renal pelvis, but if prolonged for several months the kidney may undergo varying degree of atrophy until in end all excretory tissue may be lost and there remains a mere fibrous shell covering a multioculated hydronephrotic sac representing the greatly dilated calyces, the ureter also being considerably dilated above stone. These are hard and smooth and because they are unusually multiple, they are typically faceted [19-29]. These are radiolucent and are also more common in men, half of patients with uric acid stones have gout, uric acid lithiasis is unusually familial whether or not gout present. In urine, uric acid crystals are red- orange in color because they absorb pigment uricine. Uric acid gravel appears like red dust, and stones are also orange or red on some occasions [30-36].

Material and Methods

Patients attending the following OPD’s and admitted in the IPD of Jan sewa Hospital RIICO, SGNR Homoeopathic Medical College, Hospital and research institute SGNR Rajasthan were taken up for the study.

- Age and Sex: Patients of all ages and both sexes will be considered.
- Duration of Study: One year
- Study Design: Comparative analysis
- Record of work: Case taking Performa as per Practice of Medicine and the topic of dissertation. Repertory to be used according to the case. Potency selection, application and repetition of medicine will be done according the case. All necessary investigations will be done at this institute. If special investigations are needed, patients may be referred to higher laboratories. Data collection was done on the basis of the simple randomized sampling Method.

Inclusion criteria

- Diagnosed case of renal calculi will be included.
- The patients who are fairly articulate.
- Patients of all ages and both sexes will be considered for study

Exclusion criteria

- Not associated with any other organ disorder.
- Patients who cannot express fairly.
- Any case of burn, accident, poison, drug reaction.
- Case without three follow up visit will be excluded from this study.
- Paired t- TEST is used as a statistical technique. Supportive dietary advice, auxiliary measures, meditation and yoga were advised as necessary.

Paired differences

Table 1: Paired t-test of first and final scores of ACQ

<table>
<thead>
<tr>
<th>ACQ Score (first &amp; final)</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Standard error</th>
<th>t</th>
<th>df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21.27</td>
<td>6.94</td>
<td>1.27</td>
<td>16.795</td>
<td>29</td>
<td>2.73</td>
</tr>
</tbody>
</table>

Results

Now comparison is made by calculating the value of test statistics with the tabulated value of test statistics at x = 0.05 and df = n-1 that is 2.73, we see that the calculated value of test statistics 16.79 is greater than the tabulated value thus we reject null hypothesis therefore we ascertain, that rare medicines Berberis Vulgaris, Hydrangea, Cantharis, Lycopodium Clavatum and Staphysagria are effective in cases of renal calculi in patients between 45 to 65 years of age.

For the study “A study to ascertain the effect of Berberis vulgaris, Cantharis, Lycopodium clavatum and Staphysagria in renal calculi”, 30 cases have been included in the study.
The data obtained was sorted out in the form of different charts and tables.

**Table 2: Distribution of age incidence in 30 cases of renal calculi**

<table>
<thead>
<tr>
<th>Age in groups (In years)</th>
<th>No. of cases</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15-30</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>30-45</td>
<td>14</td>
<td>47</td>
</tr>
<tr>
<td>45-60</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Above 60</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Maximum cases of Renal Calculi were observed in male patients i.e. 18 cases (60 %) in comparison to female patients i.e.12 cases (40%).

**Table 3: Distribution of socio-economic status in 30 cases of renal calculi**

<table>
<thead>
<tr>
<th>Socio economic status</th>
<th>No. of cases</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>Middle</td>
<td>14</td>
<td>47%</td>
</tr>
<tr>
<td>Lower</td>
<td>10</td>
<td>33%</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

As shown in the table, maximum number of patients were observed from middle economical class i.e.14 cases (47%) followed by lower economical class i.e. 10 cases (33%), only 6 cases (20%) were from Higher economical class.

**Table 4: Distribution of medicines prescribed in 30 patients of renal calculi**

<table>
<thead>
<tr>
<th>Medicine</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berberis vulgaris</td>
<td>13</td>
<td>43%</td>
</tr>
<tr>
<td>Hydrangea</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>Cantharis</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Lycopodium Clavatum</td>
<td>7</td>
<td>24%</td>
</tr>
<tr>
<td>Staphysagria</td>
<td>3</td>
<td>10%</td>
</tr>
</tbody>
</table>

As shown in Table, 5 cases (17%) showed marked improvement, 16 cases (53%) showed moderate improvement, 7 cases (23%) showed mild improvement, while 2 cases (7%) were in status quo and 0 case showed worsening of symptoms.

**Table 5: Distribution of results obtained in 30 cases of renal calculi**

<table>
<thead>
<tr>
<th>Status</th>
<th>No. of patient</th>
<th>% of patient</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;60%</td>
<td>5</td>
<td>17</td>
<td>Marked</td>
</tr>
<tr>
<td>30%-60%</td>
<td>16</td>
<td>53</td>
<td>Moderate</td>
</tr>
<tr>
<td>1-30%</td>
<td>7</td>
<td>23</td>
<td>Mild</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>7</td>
<td>Status quo</td>
</tr>
</tbody>
</table>

**Discussion**

It is observed that, maximum cases of Renal calculi were observed in male patients i.e.18 cases (60 %) in comparison to female patients i.e.12 cases (40%). The observation correlates with the other epidemiological studies which states that males are more affected than females. In table, it is observed that, maximum incidence of renal calculi was observed in the age group 30-45 years i.e. 14 cases (47%), age group 15-30 years have 9 cases i.e. (30%), whereas minimum incidence was in the age group above 60 years i.e. 1 cases (3%). Modern lifestyle along with high protein diets, dehydration in young middle age. Less cases were in age group above 60 years in my study due to random sampling. It is observed that, maximum number of patients were given Berberis vulgaris i.e. 13 (43%), Lycopodium clavatum was given in 7 cases (24%), Hydrangea was given in 4 cases (13%), Cantharis and Staphysagria were given in 3 cases each (10%). In the process to illuminate the therapeutic value of some medicines, they were prescribed according to symptom similarity, in maximum number of cases were given Berberis vulgaris, and minimum number of cases received Cantharis and Staphysagria. It is observed that, 5 cases (17%) showed marked improvement, 16 cases (53%) showed moderate improvement, 7 cases (23%) showed mild improvement, while 2 cases (7%) were in status quo and 0 case showed worsening of symptoms and 0 case showed worsening of symptoms.

**Conclusion**

The study was conducted at O.P.D. / I.P.D. Sri Ganganagar Homeopathic Medical College, Hospital and Research Institute, Sri Ganganagar, Rajasthan for duration of 1 year. For the study, 30 cases of renal calculi were prescribed berberis vulgaris, hydrangea, cantharis, lycopodium clavatum and staphysagria. The effect of these medicines was observed for a period of minimum interval of 7-14 days. The inference drawn from the study is as follows: Maximum incidences of cases of renal calculi were observed in the age group 30-45 years i.e. 14 cases. Incidences of males were more than in females as males are more prone to be affected. Out of 30 cases of renal calculi, 5 cases showed marked improvement, 16 cases showed moderate improvement, 7 cases showed mild improvement, while 2 cases were in status quo.

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