Management of renal calculus with hydronephrosis by herbal formulation: A case report

Waseem Qadir Bhat and Imtiyaz Ahmad Mir

Abstract
Kidney stones are one of the most common urological problems in India and one of the major reasons of abdominal pain. In Unani literature all sorts of methodologies including the pathology, manifestations and the treatment have been described. Unani System of Medicine has an impressive role in the management of renal stones through different drugs which have Lithotriptic, Diuretic and Nephroprotective properties. The present paper deals with a case report in which a 52 years old female patient having 15mm renal calculus with Grade 1 Hydronephrosis was treated with different drugs with herbal origin with the aim to evaluate the efficacy of these drugs and to avoid surgery. Patient has shown excellent and admirable results after the treatment.

Keywords: Renal calculus, Hydronephrosis, Majon-e-Hajrul Yahood, Sharbat-e-Bazoori Motadil, Unani Medicine.

1. Introduction
Kidney stones are one of the most common urological problems. In India almost 12% of men and 60% of women are reported to be prone to urinary stones [1]. Renal stone is a crystalline mass or concretions or a solid accumulations of material that is formed by precipitation of various urinary solutes in the tubal system of the kidneys. Renal stone, with a life time risk of 7-13%, result in significant morbidity as well as substantial economic costs. The renal stone increases with age and is commonly present between 2nd and 3rd decades of life. These stones are more common in men than in women with the ratio of 7 to 8:1 [2-4]. Based on variations in mineral composition and pathogenesis, kidney stones are commonly classified into four types. Calcium stones (calcium oxalate & calcium phosphate) are the commonest among all and account for almost 75-80%. Struvite Stones occur to the extent of 10-15% and have also been referred as infection stones & triple phosphate stones and usually occur in patients with chronic urinary tract infections. Uric acid stones account for 3-10% of kidney stones and are mostly present in those patients with gout. Cystine stones comprise less than 2% of all the stone types [5]. Renal stones may occur due to metabolic disturbances, infections, hormonal influences, dietary conditions and obstructions in the bladder or kidneys. The major risk factors for recurrence of renal stones include family history of stones, young age of onset, recurrent urinary tract infections, primary hyperparathyroidism and renal tubular acidosis [6].

2. Case report
2.1 Presenting concerns
A 52 year old female patient visited Govt. Unani Dispensary Meelyal Kupwara, Department of
ISM, Jammu & Kashmir, India on 29/03/2019 for treatment. The patient complained of burning micturation and pain in right flank region. The pain was mild in nature and radiating to groin and was associated with nausea. Earlier she had consulted a Surgeon who has advised her to go for surgery, but the patient was not interested in surgery, so she approached us in search of alternative remedy. The patient also had a report of Ultrasonography of abdomen showing a 15mm calculus at middle calyx of Right kidney associated with Grade1 Hydronephrosis. There was no history of Hypertension or Diabetes mellitus. Her personal history revealed she had decreased appetite, regular bowel, disturbed sleep and burning micturation.

2.2. Clinical findings
Her vitals revealed that she was afebrile, having blood pressure 130/80 mm Hg, heart rate- 78/minute and respiratory rate-14/minute. Her abdominal examination showed no organomegaly but there was mild tenderness in right flank region.

2.3. Investigations
The investigations like Serum Creatinine, Blood Sugar Random, Urine Routine examination and Ultrasonography of abdomen were carried out before and after treatment and the results of these investigations are as:

Table 1: Laboratory findings before and after treatment

<table>
<thead>
<tr>
<th>Name of the Investigation</th>
<th>Before Treatment</th>
<th>After Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum Creatinine</td>
<td>0.6 mg/dl</td>
<td>0.5 mg/dl</td>
</tr>
<tr>
<td>Blood Sugar Random</td>
<td>145 mg/dl</td>
<td>141 mg/dl</td>
</tr>
<tr>
<td>Urine Routine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pus cells</td>
<td>0-11/hpf</td>
<td>0-1/hpf</td>
</tr>
<tr>
<td>RBC</td>
<td>11-12/hpf</td>
<td>RBC - Nil</td>
</tr>
<tr>
<td>Epithelial cells</td>
<td>4-5/hpf</td>
<td>Epithelial cells 0-1/hpf</td>
</tr>
<tr>
<td>Oxalates</td>
<td>3-4</td>
<td>Oxalates - Nil</td>
</tr>
</tbody>
</table>

Table 2: Ultrasonography findings at different intervals

<table>
<thead>
<tr>
<th>Scanning Date</th>
<th>Impression</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-03-2019</td>
<td>Right Renal Calculus 15mm at Middle Calyx with Grade 1 Hydronephrosis</td>
</tr>
<tr>
<td>01-05-2019</td>
<td>Right Renal Calculus 11mm at Middle Calyx, No Hydronephrosis</td>
</tr>
<tr>
<td>10-07-2019</td>
<td>Right Renal Calculus 09 mm at Middle Calyx</td>
</tr>
<tr>
<td>29-08-2019</td>
<td>Normal Study</td>
</tr>
</tbody>
</table>

2.4. Therapeutic intervention
The patient was given tablet Cystone one tablet twice daily with water, Majon-e-Hajrul Yahood 5grams twice daily with water, Sharbat-e-Bazoori Motadil 10ml with one glass of water twice daily and Kulthi Dal (Horse gram) Decoction twice daily orally, Majon-e-Hajrul Yahood and Sharbat-e-Bazoori Motadil, marketed from GMP certified company Hamdard and prepared according to Bayaz-e-Kabeer Volume-2, while as Cystone an ayurvedic drug marketed by GMP certified company Himalaya [11-14].

3. Results
In this case the prognosis of the disease was explained to the patient and consent was taken that if any emergency occurs, then she will be shifted to the higher center. The treatment was then started and the patient was observed for improvement of signs & symptoms and stone size on different intervals. On the first consultation day, Right kidney showed a 15mm calculus at middle calyx with Grade 1 Hydronephrosis (Image 1). After one month and few days of treatment, USG was done and it showed 11mm calculus at middle calyx without hydronephrosis that means patient has started to get relief (Image2). The treatment was further continued for two months and ten days and then again USG was done and this time it showed stone size as 9mm at mid calyx (Image3). After almost one month and twenty days, the USG was again done and this time it showed stone size as 9mm at mid calyx (Image4). The stone was expelled out without any complication and no new stone formation was seen during the treatment.
4. Conclusion
The herbal medicines are the heritage of our ancient civilizations. The undesirable effects of the modern medicines have already diverted the attention of people towards the herbal medicines. To increase the acceptability and awareness among the people, there is an urgent need to develop trust and faith towards the safer indigenous system by establishing its validity in treatment for various diseases. The herbal therapy can play a vital role in disintegration and expulsion of renal stones as the drugs have Lithotriptic (Mufattite Hasat) and Diuretic (Mudire Bol) properties. The case study concluded that the above mentioned formulation is safe and effective in treating renal calculus upto 15mm in size. It also corrects body humors and reduces the viscosity of morbid fluids and thus helps in prevention of new stone formation. The efficacy of the formulation is proved as the patient showed complete recovery after the treatment.

5. Conflict of interest: Nil

6. Funding: Nil

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