

Ayurved Management of *Mootrashmari* (Ureteric Calculus): A Single Case Study

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Abstract

Mootrashmari (Urolithiasis) is considered among the *Ashtamahagadas* disorder of *Mutravahasrotas* where both medicinal and surgical treatment are advised. It is a common malady and can occur anywhere within the urinary tract. Prevalence of Urolithiasis is increasing in the society day by day due to high proteinaceous, salty diet and less exercise. In this case report a 45 years old male patient of *Mootrashmari* visited in Shalya OPD with complaints of severe pain in loin region associated with nausea and vomiting. USG findings showed presence of stone (8.6 x 4.5 mm) in left lower ureter along with moderate hydronephrosis and hydroureter. So this case was diagnosed as *Mootrashmari* (ureteric calculus) and was successfully treated with *Gokshurachurna* (5 gm), *Banga Bhasma* (60 mg) and *Purnarnavashhtakawatha* (20 ml) which were given twice daily to the patient. After 3 months of above treatment stone was completely stopped without any complication. Hence, case study concluded that *Mootrashmari* is well treated with *Ayurvedic* medicines.

Keywords: *Ashtamahagadas*; Hydronephrosis; *Gokshura*; *Banga Bhasma*; *Purnarnavashhtaka*; *Ureteric Calculus*.

Introduction

Mootrashmari is one of disorder of *Mutravahasrotas* where both medicinal and surgical treatments are advised [1]. It is considered among the *Ashtamahagadas* which resembles with Urolithiasis in modern parlance [2]. It is a common malady and can occur anywhere within the urinary tract [3]. The pathophysiology differs according to the site of origin. Urinary stone can recur, with lifetime recurrence risks are reported to be very high as 50% [4]. It forms when urine becomes supersaturated with respect to the specific components of the stone. In India almost 5-7 million persons suffer from urinary stones and at least 1/1000 of Indian population needs hospitalization [5]. It is as widespread as it is old particularly in countries with dry, hot climate they are "stone belt regions". In Jamnagar of Gujarat state, particularly in Saurashtra region the incidence of *Mootrashmari* is

increasing day by day because of high salt content of water. The recurrence rate is also very high i.e. 50-80%, male are more frequently affected than female (ratio = 4:3) [6]. The incidence is still higher in the age group between 26 to 50 years of age.

Case History

On January 2017, a 45 year old male patient attended the OPD and presented with the progressive increasing pain in left loin (radiating towards groin region) associated with nausea and vomiting since six months. There was presence of dysuria at the beginning of urination with decreased frequency of urination (1 to 2 times / day). USG investigation has been done on February, it was found that the presence of left renal calculi of 6.5 mm size. For that he had undergone ESWL procedure and found symptomatic relief. But after 3 months the symptoms reoccurred and 1st USG found that there was presence of stone of 8.6 mm x 4.5 mm and location was in the left lower ureter associated with moderate hydronephrosis and hydroureter. The patient was suggested to go for the same procedure (ESWL) but he has refused. There was no any history of diabetes or hypertension. All vitals were within normal limits. Patient was otherwise a healthy, capable of doing heavy work,

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patients reported no history of any other systemic disease and addicted to tobacco consumption.

On physical examination of abdomen, patient had intermittent and colicky pain in left hypochondrium radiating to the left back portion. According to Ayurveda, majority of clinical features of *Mutrashmari* such as *Udarpradesha Vedana* (abdominal pain), *Sadaha Mutrata* (burning micturition) and *Mutrasanga* (decreased frequency of urination) were observed [7].

All details of the patient including present history, past history, treatment history, dietary habits, lifestyle and addictions were recorded before the treatment. Necessary examinations were done and findings were recorded in research proforma. Subject was asked to adhere to the prescribed wholesome diet and activity chart (Table 1) and was advised to take plenty of water. The patient was treated with following Ayurvedic treatment regimens for about 90 days.

Treatment Regimen

1. Mixture of *Gokshura Churna* (5 gm) with *Banga Bhasma* (60 mg) BD with luke warm water after meal.
2. *Punarnavashtaka Kwatha* 20 ml (concentrated decoction) BD after meal.
3. With this medication, the patient was advised to follow *Pathya-Apathya* chart.

During the first follow up of seven days it was noticed that feeling of nausea and vomiting were subsided except mild pain in abdomen. So we continued the same treatment regimen and weekly regular follow up was done. Gradually during the treatment period patient was free from colicky pain and urine flow was normal with 8-10 time urination frequency per day.

The patient advised to go for 2nd USG investigation, it was found that stone size was reduced to 2.3 mm with mild hydroureter. Sr. creatinine was 1.0mg/dl before treatment and after treatment it remains the same. At that time of his visit he complaint of burning micturition, so for that he was advised to take Tablet Neeri thrice daily for a period of 30 days. 45 days after he had done his 2nd USG investigation, the patient complaints severe colicky pain and burning in urethra noticed the stone had came out through urethra he felt the relief.

Patient visited OPD with collected stone so for sake of confirmation, he was told do go for 3rd USG investigation. This time the report shows normal USG report with maintained CM differentiation.

Result and Discussion

Mode of action of Punarnavashtakakwatha [8]

- a. It has anti-inflammatory and diuretics which helps in evacuating the stone from urinary system.
- b. It is mainly pacifies and reduces *kaphadosha* which possibly dissolve the stone (predominant of *kaphadosha*).

Mode of action of Gokshura (Tribulusterteris): [9]

- a. It has an analgesic, cooling and anti-inflammatory which helps in pacifying the burning micturition.
- b. It also has diuretic property, which helps in evacuating the stone from the kidney, ureter and the bladder.
- c. It has lithotryptic effect which helps in dissolving further the stones becoming smaller stones.
- d. It stimulates production of urine and gives relief from the symptom of dysuria, hematuria, frequency and burning micturition.

Mode of action of Banga Bhasma: [10]

- a. It pacifies the *kaphadosha*, which helps in pacifying the *kapha* (solid substances) dominant of the disorder.
- b. It has analgesic, anti bacterial and anti-inflammatory properties, which helps in pacifying the symptoms of burning micturition as well as pain.
- c. It has anti lithiatic properties which helps in preventing the formation of stone.

Mode of action of Neeri tablet: [11]

- a. It increases the urine output and blood flow in kidneys, which indirectly have effect in expelling the stone from the kidney.
- b. It has effect of anti-inflammatory activity, which helps in pacifying the symptoms of burning micturition as well as pain.
- c. It inhibits the effect of alpha-glucosidase activity possessing antipyretic activity.
- d. It produces the diuretic activity due to the presence of potassium salts, which in turn helps in expelling the stone that present in the kidney.
- e. It possessed diuretic activity due to sodium, potassium and chloride ion; exhibiting spasmogenic activity; inhibiting the hyaluronidase and protease activity of snakes; showing the potent antifungal and antiviral activity.

USG Reports

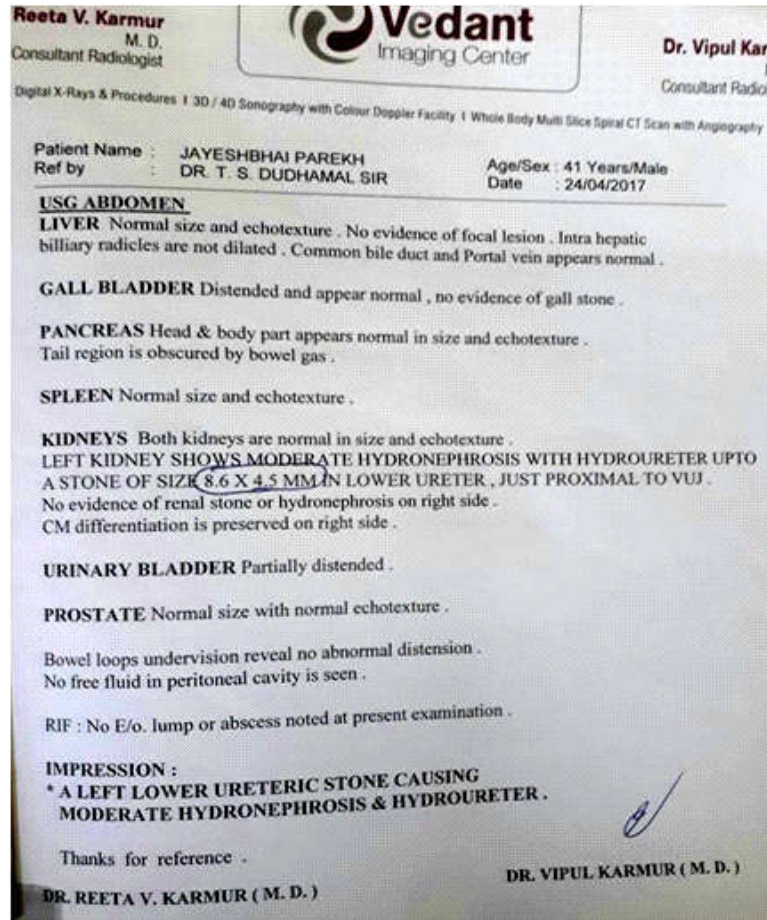


Fig. 1: USG of KUB Before Treatment

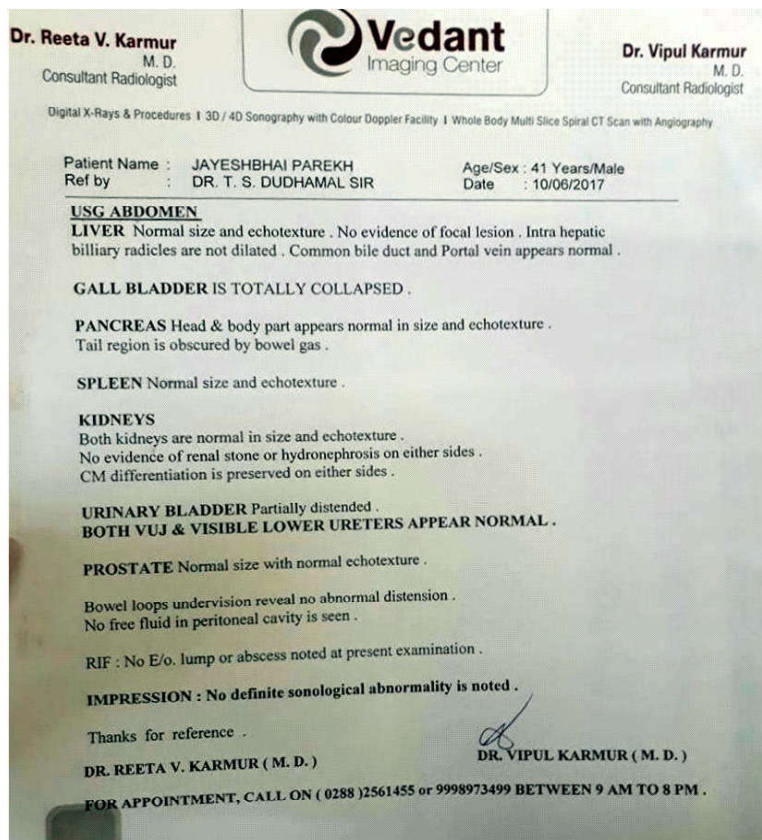


Fig. 2: USG of KUB After Treatment

Table 1: Pathyapathya followed in this case

PathyaAhara	ApathyaAhara
1. Vegetable: Carrot, Bitter gourd, Potatoes, raddish, Pumpkin seeds	1. Vegetable: Tomato, Palak, Chauhi Cauliflower, Mushroom, Brinjal, Rajmah, Beans, Cucumber, Capsicum, Lady finger.
2. Juice: Bananas juice, Pineapple juice, Aloe vera juice, Cranberry juice.	2. Fruit & juices: Chikoo & Grapes, Cashew nuts, Amla, Strawberries.
3. Fruits: Lemon, Almond, Bananas, Apples, Coconut water, Papaya.	3. Non vegetarian foods: Mutton, Chicken Fish, Egg.
4. Fibres: Barley, Oats, Horse gram, Puffed rice.	4. Chocolate, Cocoa, other chocolate drink mixes, Tea & Coffee.
5. Plenty of water (Boiled water)	5. Bore-well water.

Conclusion

It can be concluded that the treatment regimen of *Gokshurachurna*, *Banga Bhasma*, *Punarnava shtakak* modification could possibly alleviated the symptoms and flushed out the small to medium size renal calculus. No any adverse reaction was observed during course of treatment, proving the formulation safe and effective. However large scale clinical studies would be more confirmatory. It is proposed that the therapy may be accepted as an effective, economic and non-invasive treatment method to treat renal calculus.

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