

Shitivaraka Beeja (Celosia argentea Linn.)- A Folk Herb in the Management of Mootrashmari (Ureteric Stone) – A Case Report

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ABSTRACT:

Urolithiasis is one of the commonest diseases of urinary system and a biggest challenge faced by urologists. Urolithiasis has high prevalence due to their unique pathogenesis. Urolithiasis sign and symptoms are similar with *Ashmari roga mentioned in Ashta Mahagada* by Acharya Sushruta. *Ashta Mahagada* is a given nomenclature to nature of diseases which indicates its bad prognosis if left untreated. Its treatment protocol includes conservative as well surgical aspect according to severity of disease. Same protocol is found in modern therapeutics, which indicates lower effectivity of conservative management and higher chances of complication. So, it's a need of hour that there should be early conservative management with early diagnosis which can prevent surgical intervention and associated hazards. In this case study ureteric stone treated with folk drug- *Shitivaraka Beeja (Celosia argentea Linn.)*. Patient presented with symptoms i.e. radiating pain in left loin to groin, nausea, burning micturition and increased frequency of urine. Ultrasonography abdomen-pelvis and X-ray KUB was suggested and depicting left side ureteric stone of size 11.2mm × 6 mm. *Shitivaraka Beeja (Celosia argentea Linn.)* 05 g with cow milk (fifty milliliter) two times in a day was prescribed for fifteen days. After fifteen days of treatment, ureteric stone expelled out and patient cured completely. This single case report demonstrates that ureteric stone can be successfully managed through *Shitivaraka Beeja (Celosia argentea Linn.)* orally.

KEYWORDS: *Ashmari, Ashta Mahagada, Ayurveda, Shitivaraka Beeja, Ureteric stone.*

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INTRODUCTION:

The ureteric stone disease is one of the most common afflictions of modern society, it has been described since antiquity. With Westernization of global culture, however, the site of stone formation has migrated from the lower to the upper urinary tract. Revolutionary advances in the minimally

invasive and non-invasive management of stone disease over the past 2 decades have greatly facilitated the ease with which stones are removed. However, surgical treatments, although they remove the offending stone, do little to alter the course of the disease.^[1] In the context of India, Kidney stone disease is prevalent, with as

expectancy of 12% in a total population reported to be prone to urinary stone. Some parts of country denoted as a stone belt having humid and hot climate i.e. Gujarat, Maharashtra, Punjab, Haryana, Rajasthan.^[2] The disease affects all age groups but typically occurs in middle life during the most productive years (30-50 years) with male to female ratio 4:3.^[3] In Gujarat, particularly in *Kutch* and *Saurashtra* region the incidence of *Mootrashmari* is very high due to high mineral content of water and hot climate.^[4]

Ureteric calculi are always of renal origin and nature of stones are same as that of renal stones. In the reference of ureteric stone, pain is colicky in type and radiates from loin to groin. Other symptoms like nausea, vomiting, haematuria, dysuria, frequency etc.^[5] Ureteral calculi of any size may be associated with renal obstruction, and care must be taken to prevent irreversible damage to the kidney, whether the patient selects expectant or active treatment.^[6] All Acharyas explained *Ashmari* and its management in detail. Acharya Sushruta has described 4 types of *Ashmari*. A preponderance of the deranged *Kapha* should be understood as the underlying cause in the person, who neglects *Samshodhana* and habit of taking unwholesome diet. Aggravated *Kapha*, *Vatayukta Kapha* or *Pittayukta Kapha* is carried into *Mootrashaya* and becomes saturated with urine, and gives rise to the formation of *Ashmari*.^[7] Acharya Sushruta described that *Ashmari* is a *Daruna Vyadhi* and is fatal as death. Acharya Sushruta has mentioned various palliative oral medications which possesses the properties such as *Bhedana* (Spitting), *Lekhana* (scraping) and *Mootrala* (Diuretic) for facilitating the disintegration of the urinary stones. Surgical treatment has to be undertaken only on failure of conservative treatment and when death becomes

inevitable as per the Acharya Sushruta.^[8] Simultaneously many folk medicines are used for the treatment of urinary stones. Among them *Shitivaraka Beeja* (*Celosia argentea* Linn.) is used in Gujarat for the treatment of urinary stones. Evidence of its effectivity over urinary stone is not established till date though it is found very effective clinically in various region of Gujarat. There are also traces of its effect on *Ashmari* found in various classical texts. So, in this case conservative medicine was selected because patient don't want to go for surgery second time and there was no any emergency for surgery. Therefore, *Shitivaraka Beeja* (*Celosia argentea* Linn.) was given as intervention drug by oral route for this study.

PATIENT INFORMATION:

A 31 years old female patient came at OPD of Shalya Tantra Department on 7th may 2022 with complaints of radiating pain in left loin to groin, nausea, burning micturition and increased frequency of micturition for 01 month. Surgical history was depicting her previous surgery for right renal stone of approx. 20mm size before 3 years and completely relieved afterwards. She doesn't have any documents of surgery of renal stone. In medical history, she was used to take analgesic medicine periodically during onset of severe colicky pain (Once in a 15 to 20 days) There was no any positive family history of urolithiasis. Her general as well systemic examinations revealed normalcy.

METHODOLOGY:

Oral Intervention: Five g of raw *Shitivaraka Beeja* (*Celosia argentea* Linn.) with 50 ml of cow milk twice in a day before meal for the duration of 15 days.

Assessment criteria:

Patient was assessed on the basis of following criteria before and after treatment.

Subjective criteria: colicky pain that radiates from loin to groin, burning

micturition, increased frequency of micturition, nausea and vomiting (Table-1)

Objective criteria: As per USG abdomen & pelvis; site, size & number of stone and hydronephrosis & hydroureter (Before and after treatment).

Table-1: Subjective criteria for assessment:

Criteria	Gradation			
Colicky pain that radiates from loin to groin.	As per Visual Analogue Scale			
	Grade 0	Grade 1	Grade 2	Grade 3
Burning micturition	Absent	Present		
Increased frequency of micturition	Up to 6 times	7-9 times	10-12 times	>12 times
Nausea and Vomitting	Absent	Present		

Table- 2: Results:

Subjective criteria	Before treatment	After treatment
Colicky pain that radiates from loin to groin.	Grade 4	Grade 0
Burning micturition	Grade 1	Grade 0
Increased frequency of micturition	Grade 2	Grade 0
Nausea & vomiting	Grade 1	Grade 0

Table -3: Findings USG abdomen and pelvis:

Characteristics	BT (Image 1)		AT (Image 2)	
Site of stone	Left lower ureter	Left upper calyx	Absent	Left lower calyx
Size of stone	11.2 × 6 mm	7 mm	Absent	3 mm
No. of stone	1	1	Absent	1
Hydronephrosis and hydroureter	Mild		Absent	

RESULT:

Result was assessed based on subjective and objective criteria. In subjective criteria pain was absent after treatment which was VAS 4 before treatment, no burning micturition, nausea and vomiting was there after completion of treatment. frequency of micturition decreased from grade 2 to grade 0, (Table-2) Findings of USG abdomen & pelvis before and after treatment in which

ureteric stone of approx. 1cm size was expelled out and upper calyx stone was descent in lower calyx and size reduced from 7 mm to 3 mm (Table-3). In investigations; CBC, Lipid profile and renal profile were within normal limit before and after treatment. In urine routine & microscopic examination, pus cells 6-8/ hpf and RBCs 3-4/ hpf were present, which was absent after the 15 days of treatment.

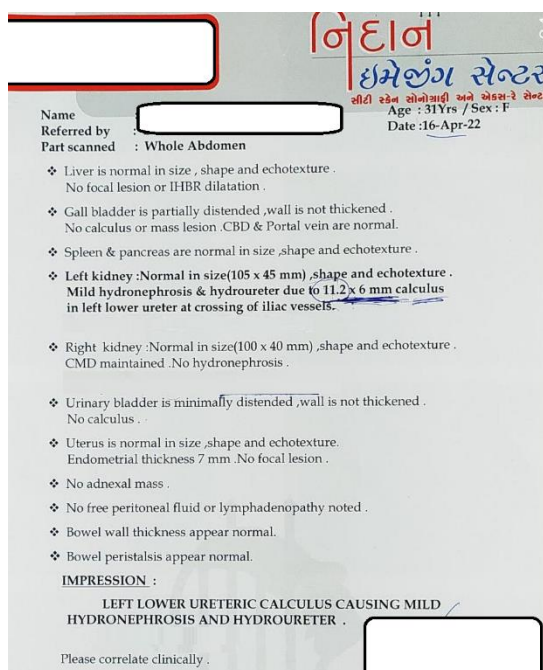


Fig-1: USG findings before treatment

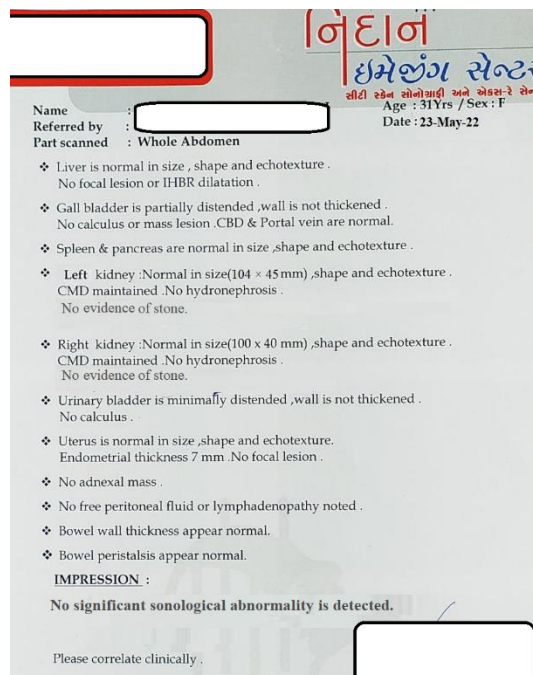


Fig-2: USG findings after treatment

DISCUSSION:

There are four types of *Ashmari* mentioned in classics and preponderance of the vitiated *Kapha* should be understood as the underlying cause. Medicine used in this case report, *Shitivaraka Beeja* (*Celosia argentea* Linn.) is described as a *Kurantika* synonym in *Kaiyadeva Nighantu*. It possesses *Kapha shamak* properties like *Ruksha* (dryness), *Sara* (mobility) *Guna* (property) and *Katu, Lavana* and *Tikta Rasa* (taste).^[9] Here, *Sara Guna* predicted to doing *saran* of *mootra*(diuresis). As per modern, Increased urine output may have two effects. First, the mechanical diuresis that ensues may prevent urinary stagnation and the formation of calculi.

Secondly, more likely is that the creation of dilute urine alters the supersaturation of stone components.^[10] So this drug may increase urine output due to *Sara Guna*. According to *Kaiyadeva Nighantu*, it is also indicated in *bastimaruta*, *mootrakrichchha*, *Ashmari* etc.^[11] Similarly it was confirmed by one of experimental study (joshi et al., 2012) which concluded that this drug acts as antiurolithiatic and also preventive

prophylactic to further stone formation.^[12-13] Another study also showed significant antiurolithiatic activity by using ethanolic extract of *Celosia argentea* Linn. seeds in rats.^[14] This drug is also mentioned by Acharya Sushruta in the management of *Pittaja Ashmari* as *Kurantika* name.^[15] So, its need to make an evident data on this drug as till date no any clinical study is found on its antiurolithiatic activity.

CONCLUSION:

These result suggests that the *Shitivaraka Beeja* is effective in the management of *Mootrashmari* (Ureteric Stone).

INFORMED CONSENT:

The INFORMED consent of patient has been taken before treatment

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