

Management of Renal Calculi with a combination of Viddha Karma and Shamana Chikitsa - A Case Study

Punam Sawarkar^{1*}, Kalpana Gholap², Gaurav Sawarkar¹

¹Department of Panchakarma, Mahatma Gandhi Ayurved College Hospital and Research Centre, Salod, Wardha, Maharashtra, India;

²Department of Panchakarma, Yerala Medical college, Nerul, Navi Mumbai, Maharashtra, India

ABSTRACT

Background: Renal stone is also called renal calculi, nephrolithiasis, or urolithiasis. Certain Calcium supplements and medications are among the major causes of kidney stones. The role of Shamana Chikitsa in Ayurveda to treat this condition successfully is already proved. But to hasten this therapeutic outcome, Viddha Karma plays a crucial role. It is a very effective treatment modality that Acharya Sushruta exclusively narrates. However, it is neglected in clinical practice. Thus, there is a need to prove the efficacy of this non-invasive tool in managing some surgical conditions, including renal calculi. Aim & Objectives: To study the combined effect of Viddha Karma and Shamana Chikitsa in managing Renal colic induced due to renal calculi. Material & Methods: It is a single case study of 48 years old female patient suffering from complaints such as colicky Pain (intermittent), constant dull ache in the left loin region, burning & hesitancy while micturition, obstructed Urine, incontinence of Urine, etc. for 1 Month. U.S.G. Abdomen & pelvis showed renal stone of 7 mm at a left vesicoureteric junction and minimal pelvicalyceal fullness in the left kidney with the prominent left ureter.

After a detailed history, Vidhha Karma was done at the lateral border of the right thumb of the right leg on an alternate day (total 12 sittings). Moreover, Shaman Chikitsa, i.e., Chandraprabha Vati, Varunadi Kashaya, Tab Neeri, Hingashtak Choorna, and Shankh Vati, was prescribed for one month. Result & Observations: After 1 Month, all clinical symptoms subsided completely with good urine output. U.S.G. Abdomen & pelvis showed no calculi or abnormality. Discussion: All Shamana Chikitsa breaks the pathogenesis of Mootrashmari due to its Ashmari Bhedak, Mootral effects as a result of their properties, e.g., Ushna Veerya, Vatanulomana, etc. Viddha Karma increases the movement of the ureter that easily eliminates the crushed stone. Conclusion: This case showed the efficacy of a combination of Viddha Karma and Shamana Chikitsa to manage Renal colic and renal stone in a very non-invasive manner within a short duration.

Keyword: Renal Calculi; Colic; Viddhakarma; Shamana Chikitsa; U.S.G

INTRODUCTION

Renal stone is a global clinical condition that has a great recurrence rate with significant illness. It is also known as renal calculi, nephrolithiasis, or urolithiasis. Certain Calcium supplements and medications like steroids are among the major causes of kidney stones. 4 to 20 % of people suffer from nephrolithiasis due to consumption of steroids, especially Prednisone [1]. Recurrent hospitalization due to an acute attack of renal colic induces economic & mental stress over the patient. To date, many invasive and non-invasive modalities are there in modern science to treat this condition; however, still,

there are certain limitations for these pharmacological and surgical interventions due to the high recurrence rate and expensive nature [2].

On the other hand, much clinical evidence showed the efficacy and safe nature of multiple Herbal and herbo-mineral compounds in Ayurveda to manage urolithiasis with radical cure and without undue effect. Though Shamana Chikitsa in Ayurveda to treat this condition successfully is already proved, to hasten this therapeutic outcome, Viddha Karma plays a crucial role, which is a very effective treatment modality that is Acharya Sushruta exclusively narrates. However, it is neglected in clinical practice. Thus, there is

*Correspondence to: Punam Sawarkar, Department of Panchakarma, Mahatma Gandhi Ayurved College Hospital and Research Centre, Salod, Wardha, Maharashtra, India; E-mail: punamsawa@gmail.com

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a need to prove the efficacy of this non-invasive tool in managing some surgical conditions, including renal calculi.

Aim

The current study was planned to assess the efficacy & safety of Viddhakarma & Shamana Chikitsa compromising of both herbal and herbo-mineral formulations in Ayurveda for managing Renal stone and associated clinical features.

MATERIAL AND METHODS

A single case study

The demographic details of the patient are tabulated in table no.1.

Chief complaints

Chief & associated complaints of the patient are tabulated in Tables 2 &3, respectively.

History of present illness

A 45-years-old female patient was suffering from associated complaints such as Constant Pain in both heels, Radiating Pain from the Right cervical region to right hand & Stiffness in the neck. Therefore, before six months, she was approached by an orthopedic physician who had diagnosed her with degenerative cervical spondylosis and bilateral calcaneus spur. She was prescribed Calcium supplements, analgesic medicines, and steroidal injections in both heels (weekly once). She had taken treatment described above consecutive for four months. However, she didn't get any relief in her complaints. Before two months, she suddenly suffered from acute pain in the lower abdominal and left loin region along with other urinary complaints such as burning micturition, Hesitancy during micturition with the passage of scanty & Turbid Urine. So, she was admitted to a local hospital and managed with local antispasmodic & hydrotherapy to manage renal stone after radiological evaluation with U.S.G. abdomen and pelvis. The acute pain subsided, but later on, she developed constant dull Pain in the left loin region & lower abdomen, along with the persistence of other urinary complaints. Therefore, she was advised for laser

surgery for stone. But, the patient and her relatives were not willing to undergo surgery; that's why she approached Panchakarma O.P.D. Mahatma Gandhi Ayurveda Hospital & research center, Salod, Wardha, Maharashtra for Ayurvedic treatment. After proper history taking and thorough examination, treatment was initiated.

History of the patient

Detailed History of the patient is provided in (Table 4)

General examination (Clinical Findings)

General examination (Clinical Finding) is shown in (Table 5).

Ashtavidha parikshana

Ashtavidha parikshana is given in (Table 6).

Investigations

U.S.G. Abdomen & pelvis dated 20/08/21 showed calculi of size 7 mm at the left vesico-urteric junction in the urinary bladder. Minimal pelvi-calceal fullness noted in left kidney with prominent ureter suggestive of renal calculi with early changes of left hydroureter.

Diagnosis

Mootrashmari with *Pittaja Mootrakruhha* (Renal calculi in urinary bladder with cervical spondylosis and bilateral calcaneus spur)

Intervention

The Treatment prescribed for this patient is provided in Table 7 & 8.

RESULT & OBSERVATIONS

Assessment of the patient was done with both radiological findings as well as clinical features. The Radiological assessment (U.S.G. Abdomen & Pelvis) was given in the (Figure 1-2).

The patient became symptom-free with all aforesaid prescribed treatment after one month. There was no event related to the patient's hospitalization for the emergency care in the modern

Table 1: Demographic details.

S.No.	Head
1	Name
2	Sex
3	Age
4	Address
5	Phone No.
6	Occupation
7	Marital status
8	Education
9	Socio economic status
10	O.P.D. No.

Table 2: Chief complaints.

S.N.	Nature of Symptom	Severity	Duration
1	Intermittent Colicky Pain in the left loin region	09 (VAS) (Daily /alternate day)	
2	Constant dull pain in the left loin region & lower abdomen	04(VAS)	
3	Burning micturition	Constant	
4	Hesitancy while micturition	Throughout the day & night	Since 1 ½ Month

Table 3: History of the patient

S.N.	Symptoms	Severity	Duration
1	Constant Pain in both heel (H/o Aggravation of Pain especially in the morning or while working on prolonged standing)	04 (VAS)	
2	Radiating Pain from Right cervical region to right hand	03 (VAS)	
3	Stiffness in the Neck No stiffness-0 Stiffness for few minutes relived by mild movements -1 Stiffness lasting for 1-2 hours that do not affect daily activity-2 Stiffness lasting for more than 2 hours that mildly affects daily activity-3 Constant Stiffness that hampers daily activity-4	4+	Since two years
4	Tingling sensation in the right hand No Tingling sensation -0 Tingling sensation for few minutes relived after some specific movement -1 Tingling sensation lasting for 1-2 hours that do not affect daily activity-2 Tingling sensation lasting for more than 2 hours that mildly affects daily activity-3 Constant Tingling sensation that hampers daily activity-4	4+	6-8 months
5	Loss of appetite Feels good hunger and proper digestion daily-1 Feels good hunger but irregular digestion-2 Feels less hunger & irregular digestion-3 Feels very less hunger & very less digestion-4	4+	2-3 months
6	Loss of taste Normal taste in food, feeling to eat food in time-0 feeling to eat food but not having taste -1 Though a person is hungry, but not feeling to eat food -2 Aversion to food partially-3 Complete Aversion to food -4	2+	
7	The fullness of the abdomen(Bloated) No Fullness-0 The occasional feeling of fullness-1 Mild distension daily after Intake of food up to 1 hour -2 Mild distension daily after Intake of food up to 1-3 hours -3 Moderate distension daily after Intake of food more than 6 hours -4 Moderate distension daily after Intake of food more than 6 hours -5 Severe distension daily after Intake of food less than 6 hours -6 Severe distension daily after Intake of food more than 6 hours -7	6+	
8	Indigestion No indigestion-0 Occasional only after Intake of heavy food/at irregular interval-1 Daily indigestion even after taking regular food at regular time /interval-2	2+	
9	Headache associated with nausea and vomiting	Weekly once	

Table 4: History of the patient.

S.No.	Heads	Details of the patient
1	Past History	<ul style="list-style-type: none"> • K/C/O-Cervical spondylosis and calcaneus spur since two years • H/O- Tubectomy before 17 Years • Menopause before three years • H/o/ Intake of steroidal injections and Calcium supplements for four months
2	Family History	<p>Mother -K/C/O/ Osteoarthritis Knee</p> <p>Father & Siblings - Healthy</p> <p>Ahara & Vihara (Diet & Lifestyle):</p> <ul style="list-style-type: none"> ❖ Pure vegetarian, Daily Intake of <i>Katu & Amla Rasa Pradhan Dravya Sevan</i> ❖ Low Intake of water throughout the day (1-2 liters only) ❖ Intake of food at Irregular time & interval ❖ Daily Intake of stale food ❖ <i>Vegavrodha</i> (Suppression of urges due to workload & responsibilities, discipline in a joint family) ❖ The excess tendency of sweating at the time of household work in the kitchen ❖ Mental stress due to strict environment at home
3	Personal History	<p>Sleep: Disturbed due to stress</p> <p>No history of any addiction</p>

Table 5: General examinations.

S.N.	Head	Observations
1	G/c	Moderate, afebrile, conscious, well oriented
2	P/A	Distended but non-tender. No, any S/O rebound tenderness, etc. Hepatomegaly/Splenomegaly /lymphadenopathy was Absent.
3	Other systemic examination	No puffiness over the face. No bipedal edema The rest of all systemic examination was normal
4	Pulse	80/mins
5	Blood pressure	110/70 mm of Hg
6	Weight:	62 kg
7	Height	153 cm
8	Prakriti	Kapha Pradhana Pittaja

Table 6: Ashtavidha parikshana.

S.N.	Head	Observation
1	Nadi (Pulse)	Niyamit, Kapha-Pradhan Vataj
2	Mala(Stool)	Unsatisfactory, Aniyamit, Grathita (occasionally with straining)
3	Mutra(Urine)	Asamyak (Sadaha, Sakashta, Alpa- Burning, Hesitancy, turbid urine)
4	Jivha(Tongue)	Saam
5	Shabda (Speech)	Spashta (Clear)
6	Sparsha (Touch)	Samshitoshna (Normal)
7	Druka (Vision)	Good
8	Akruti (Posture)	Madhyam

Table 7: Treatment prescribed.

S.N.	Type of Chikitsa	Material	Site	Duration	
1	Viddhakarma	Needle no. 24	At the lateral border of the thumb of the right leg on an alternate day	Once an alternate day (total 12 sittings)	
2	Patrapinda Swedana	Erand+Arka+Nirgundi+ Agnimantha + Dashmoola Oil	Over the cervical region, upper back & right hand	14 days	
3	Agnikarma	Panchadhatu Shalaka	Over both heels	Seven sittings (alternate day)	
4	Internal medication	Dose	Anupana	Time of administration	Duration
i.	Chandraprabha Vati	250 mg 3 Tabs T.D.S.	Lukewarm water	Before food	1month
ii	Varunadi Kashaya	15ml BD	15ml Lukewarm water	1 hour before food	1month
iii	Tab Neeri	2 Tab BD	Lukewarm water	After food	1month
iv	Hingashtak Choorna	5gm BD	1 tsf Cow ghee	10 Minutes before food	1month
v	Shankh Vati	250 mg 2	Lukewarm water	After food	1month

Table 8: Assessment of the patient based on clinical features.

S.N.	Symptoms	Before Treatment (Before 1 month)	On 15 th Day	After Treatment (1 month)
1	Intermittent Colicky pain in the left loin region	09 (VAS) (Daily /alternate day)	Absent	Absent (No episode till date)
2	Constant dull pain in the left loin region & lower abdomen	04(VAS)	Absent	Absent
3	Burning micturition	Constant	Absent	Absent
4	Hesitancy while micturition	Throughout the day & night	Absent	Absent
5	Constant Pain in both heel (H/o Aggravation of Pain especially in the morning or while working on prolonged standing)	4 +(VAS)	2+	0
6	Radiating Pain from Right cervical region to right hand	3+ (VAS)	1+	0
7	Stiffness in the neck	4+	Absent	Absent
8	Tingling sensation in the right hand	4+	1+	Absent
9	Loss of appetite	4+	Absent	Absent
10	Loss of taste	2+	Absent	Absent
11	Fullness in abdomen(bloated)	6+	Absent	Absent
12	Indigestion	2+	Absent	Absent
13	Headache associated with nausea and vomiting	Weekly once	Absent	Absent(No episode till date)

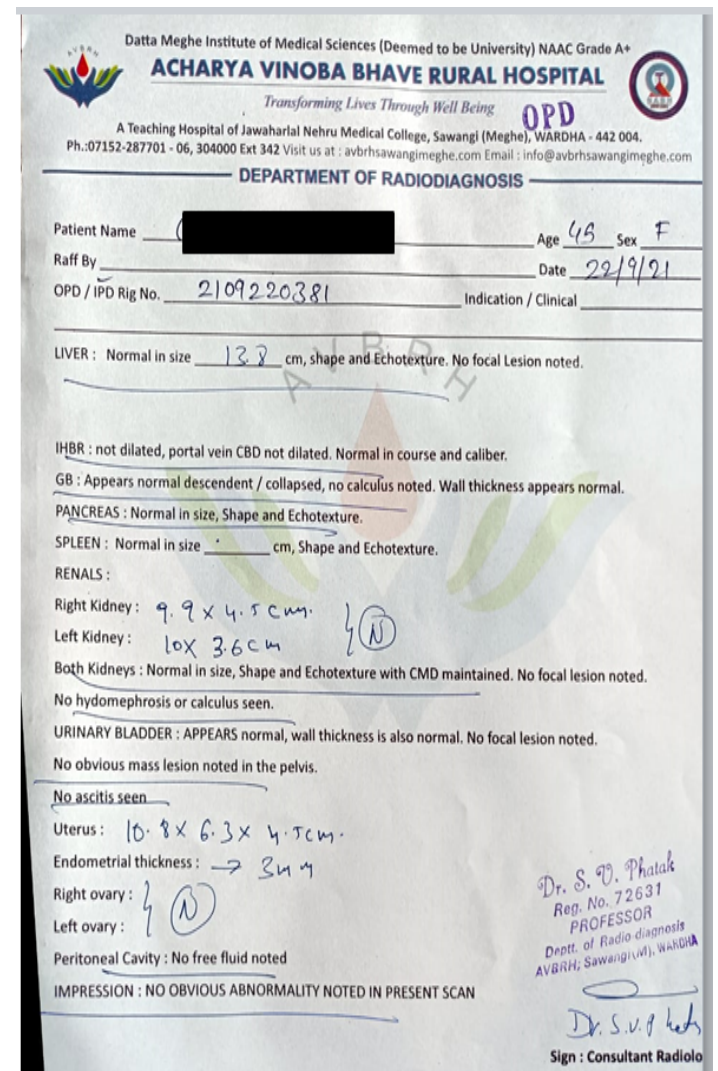
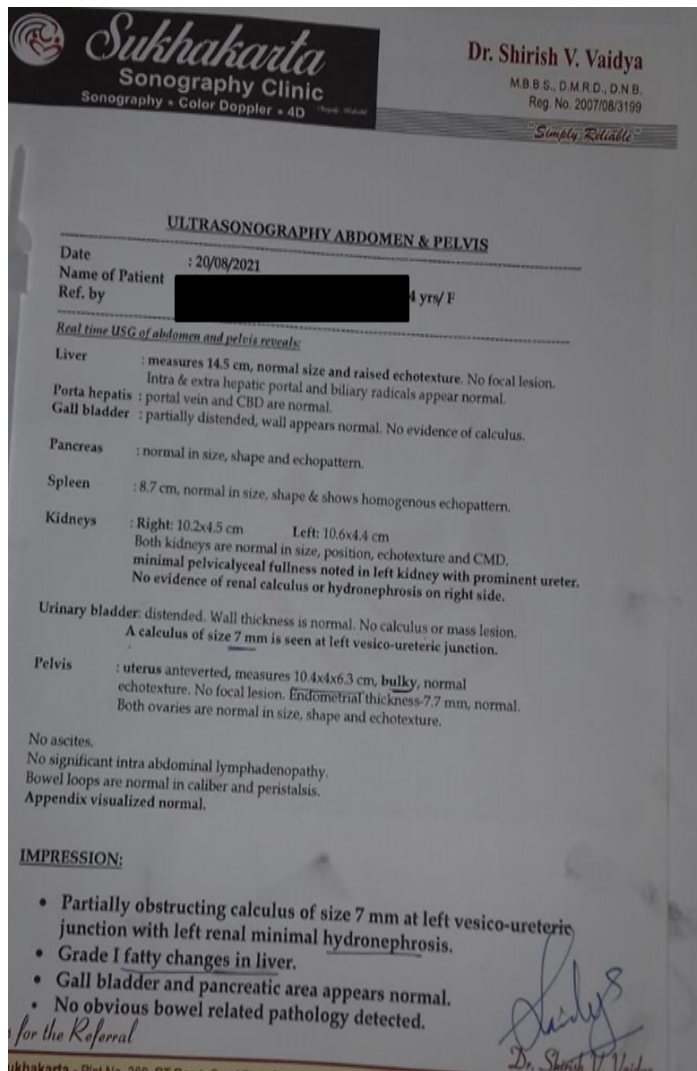


Figure 1: Findings of U.S.G. Abdomen & Pelvis on 20/08/21 (Before Rx).

Figure 2: Findings of U.S.G. Abdomen & Pelvis on 22/09/21 (1 month after Rx).

hospital throughout the whole duration. To date, no recurrence has been obtained.

Calculus of size 7 mm at a left vesicoureteric junction in the urinary bladder. Minimal pelvi-calceal fullness noted in left kidney with prominent ureter suggestive of renal calculi with early changes of hydronephrosis.

No, calculi were observed & no other Obvious abnormality was noted in the present scan.

DISCUSSION

As per the evaluation of the detailed History of the patient, both faulty Lifestyle (Ayogya Ahara-Vihara) and iatrogenic factors are responsible for the pathogenesis of the disease, i.e., Mootrashmari. Daily Intake of Katu & Amla Rasa Pradhan Dravya Sevan, Mental Stress leads to Pitta Dosha's provocation, which gets further aggravated by low Intake of water throughout the day. Vishamashana, i.e., Intake of food at Irregular times & intervals, Vegavrodha (Suppression of urges due to workload & responsibilities in a joint family) leads to vitiation of Vata Dosha. Moreover, Intake of calcium supplements and steroids for a prolonged time leads to more excretion of calcium through urine out of the body. However, due to Vata and Pitta's vitiation, urine formation gets reduced, which is produced, unable to excrete properly due to Vitiation of Apanavayu. Ultimately it gets saturated in the bladder, becomes turbid, and turns into calculi.

Treatment with drugs exhibiting Vatanulomak, Vata-pitta shaman but Ashmari Bhedak and Mootrala properties is highly expected in the management of such clinical entity by considering all above-said pathology of the disease. The probable mode of action of each procedure & drug prescribed can be justified based on all these principles as follows:

Viddha Karma increases the movement of the ureter and activates the smooth muscles of the urinary bladder that easily eliminates the crushed stone in a downwards direction. It is also an excellent pain relief tool exclusively elaborated by Acharya Sushruta. It helps to subside both intermittent colicky and constant dull pain in the left loin region & lower abdomen due to obstruction of the flow of Urine & flatus. The secretion of endorphins may induce its analgesic action due to painful mechanical stimulus at the time of procedure [3].

Patrapinda Swedana done with leaves of Erand+Arka+Nirgundi+ Agnimantha added with Dashmoola Oil relieves the muscular swelling, Stiffness, and Pain. It subsides radiating Pain, Stiffness, spasms in the cervical muscles and right hand with the pacification of tingling sensation in the right hand due to its Ruksha-Snigdha Properties [4]. Agnikarma done with Panchadhātu Shalaka over both heels relieves Pain due to its analgesic property [5].

All Shamana Chikitsa breaks the pathogenesis of Mootrashmari due to its Ashmari Bhedak, Mootral effects as a result of their

properties, e.g., Ushna Veerya, Vatanulomana, etc. It also subsided the all associated complaints with gastrointestinal symptoms, e.g., loss of taste & appetite, bloated abdomen, indigestion, constipation & headache associated with nausea and vomiting due to its Agnidipak, Apanavatalomak, Amapachaka, Ruchikar, Malavshatambahara properties.

Chandraprabha Vati excretes excess Kleda through Urine due to its Kaphaghna, Mootrala properties. It also corrects the vitiation of Apanavayu. It subsides all symptoms of Pittaja Mutrakruhha such as burning micturition & hesitancy while micturition due to its Shita Veerya[6,7].

Varunadi Kashaya acts as an excellent remedy to crush the calculi into minute particles which gets easy to wash out through Urine out of the body due to its Kaphaghna property [8,9].

Tab Neeri- Anti-urolithiasis effect of Tab Neeri is elaborated by an In- Vitro study conducted by Bhandari R et al. 2021[10]. It also relieves symptoms of U.T.I. such as burning micturition & hesitancy, while micturition is due to its anti-microbial effect stated by Bhusal N et al. 2011[11]. Hingashtak Choorana & Shankh Vati relieves all symptoms of Annavaaha Strotodushti Lakshana due to its Agnidipaka, Amapachaka, and Ruchya Properties. Both medicines also act as an emergency drug in managing renal colic due to its Shoolaghna property [12-19]. Hingashtak Choorana also corrects the Apanavata, which get vitiated due to Vegavarodha. It also subsides the symptom of the bloated abdomen that makes the patient more uncomfortable by correcting Apanavayu and Samavayu. Shankh Vati helps alleviate the intermittent Colicky Pain in the left loin region & also migrates the constant dull pain in the left loin region & lower abdomen due to analgesic properties of Ahifena(Opium).

CONCLUSION

This case showed the efficacy of a combination of Viddha Karma and Shamana Chikitsa to manage Renal colic due to renal stone in a very non-invasive manner within a short duration without recurrence of any symptom. It can be concluded that Shamana Chikitsa added with Viddhakarma, can successfully treat surgical conditions like urolithiasis. Viddhakarma plays a crucial role in hastening the therapeutic outcome of Shamana Chikitsa in Ayurveda. There is a need to prove the efficacy of this non-invasive tool in managing such surgical conditions, including renal calculi, through various multi-centric trials conducted on a large sample size.

THE CONFLICT OF INTEREST

Nil.

THE SOURCE OF ANY SUPPORT RECEIVED

NIL.

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