



Review Article

**CLINICAL UNDERSTANDING OF MUTRAVAHA SROTO VIKARA WITH SPECIAL REFERENCE TO SEQUENTIAL ARRANGEMENT OF MUTRASHMARI (URINARY CALCULUS) AS PER SUSHRUTA**

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**ABSTRACT**

*Mutrashmari* is one of the common disease of the *Mutravaha Srotas*. The *Mahagadas* are difficult to cure due to their *Ashraya* in *Marma Sthana* and Involvement of *Bahudoshas* etc. *Sushruta* and *Vagbhata* considered *Ashmari* as one among the *Asta Mahagada*. The classical *Lakshana* of *Mutrashmari* is *Vedana* with *Sanga* of *Mutra* along with vitiated *Dosa* in *Mutravaha Srotas*. Acharya *Susrutha* has explained four types of *Mutrashmari* with sequential arrangement like *Kaphaja* (Kidney Stones), *Vataja* (Uretric Stones), *Pittaja* (Vesicle Stones) and *Shukraja*. This disease is classified on the basis of signs and symptoms of involved *Dosa* like *Kaphaja* (Dull ache), *Vaataja* (Severe pain), *Pittaja* (Burning type of pain) in different part of *Mutravaha Srotas*. According to contemporary science also the classification of calculus depends on mainly signs and symptoms. Intension of this paper is to highlight the concept of clinical understanding the sequence of *Mutrashmari* (Urinary Calculus) classification as per *Sushruta* with different case presentations.

**KEYWORDS:** *Mutravaha Srotas, Mahagada, Lakshana, Dosa, Urinary Calculus.*

**INTRODUCTION**

*Mutra* means urine and *Ashmari* means stone, *Mutrashmari* means formation of *Ashmari* in *Mutravaha Srotas*. *Susrutha Acharya* has explained *Ashmari* is a *Mahagada*<sup>1</sup>; So It is not easily curable. In the present era, persons are going away from the nature and inviting many diseases in the early stage of their life due to disturbed lifestyle and *Ashmari* is one of them. The highest incidence of *Calculi* occurs between the age of 30 to 50 years, Male are more sufferers than female. The male and female ratio is 3:1<sup>2</sup>. The recurrence rate of *Ashmari* approximately 50% within 5 years.

**Mutravahasrotas**

**Sites of origin**

**According to *Susrutha*:** Urinary bladder and Penis

**According to *Charaka*:** Urinary bladder and Groin

**Organs:** Kidneys, Ureters, Bladder, Prostate in males, and Urethra<sup>3</sup>.

**Symptoms of vitiation:** Voiding of too much of urine or complete suppression of urine, impairment of composition of urine, occasional or frequent passing of thick urine associated with pain<sup>4</sup>.

**The nature of importance of *Srotas*:** The pathology of *Srotas* is one of the contributing factors of diseases. *Srotas* are made up of different *Dhatus*. Hence whenever there is deformity or vitiation of *Dhatu*, generally there is deformity and vitiation on *Srotas* also. *Sthanasamsraya* is the stage of *Samprapti* where *Dosas* get lodged in *Srotas* and start the process of amalgamation with *Dhatu* or *Mala* (*Dushya*).

**Mutrashmari**

This disease is classified on the basis of signs and symptoms as well as morphology of *Ashmari* that are

formed in different part of *Mutravaha Srotas*. *Tridoshaja Vyadhi, Kapha Dosha* takes important part in hardening the *Ashmari* and *Vata, Pitta* dries up the *Mutra* along with *Kapha*.<sup>5</sup>

**Table 1: Shat Kriya Kala-Mutrashmari Samprapti**

<i>Sanchaya</i>	<i>Vaata Kapha Aahaaraja &amp; Vihaaraja</i>
<i>Prakopa</i>	<i>Vaata+Kapha</i> vitiation <i>Agnimaandya</i> <i>Aamotpatti</i>
<i>Prasara</i>	<i>Vaata+Kapha+Aama</i> Enters into <i>Mutravaha Srotas</i>
<i>Sthanasamsraya</i>	<i>Dosa Dushya Samoorchana</i> <i>Vata Pitta</i> dries up the <i>Kapha</i> along with <i>Mutra</i>
<i>Vyaktha</i>	<i>Ashmari Nirmana</i>
<i>Bedha</i>	<i>Upadrava</i> <i>Mutra Sharkara</i> <i>Sikatameha</i>

**Classification of *Ashmari***<sup>6</sup>

- 1 *Kaphaja*
- 2 *Vataja*
- 3 *Pittaja*
- 4 *Shukrashmari*

***Kaphaja Ashmari Samprapti***

The *Ashmari* originated through the *Prakupita Kapha* saturated with excessive quantity of the *Dosha* by the constant use of *Kaphakara Aahara Vihara* increases in the size of *Basti Mukha* and ultimately obstructs the passage of urine<sup>7</sup>.

**Table 2: Kaphajaashmari-Kidney Stone**

<b>Kaphaja Ashmari<sup>8</sup></b>	<b>Kidney Stones<sup>9</sup></b>
<i>Kaphaja Ashmari</i> quite bigger in size therefore pricking, pulling type of dull ache.	Renal pain occurs when stone is in kidney. It is fixed pain not radiating. Patient typically describes renal pain by putting his hand on waist.

### Why Fixed Renal Pain Occurs in *Kaphajaashmari* (Renal Calculus)

Renal pain occurs when the stone is situated in kidney, Tuberculosis of kidney and in acute Pyelonephritis. It is the constant fixed dull ache felt at renal angle posteriorly (angle formed between outer border of erector spinae muscle and lower border of 12<sup>th</sup> rib). The pain may also spread along subcostal area towards the umbilicus (corresponding hypochondriac region anteriorly). The patient typically describes renal pain by putting his hand on waist. Spread his four fingers back to cover renal angle and pointing his thumb towards umbilicus. Renal pain occurs due to distension of renal capsule and renal pelvis.

#### Case-1

Patient (29/F, housewife). One day suddenly she noticed dull, pricking and fixed pain in Abdomen - left flank region anteriorly and left renal angle posteriorly.

**O/E:** Tenderness present in left hypochondria and lumbar region

**Rupa:** Constant, dull, fixed and pricking type of pain

**Diagnosis:** *Kaphaja Ashmari* (Renal Calculus)

**USG Abdomen Impression:** Left Renal Calculus

#### Case-2

Patient (29/M, Clerk,). One day suddenly he noticed dull and fixed pain in Abdomen - B/L flank region anteriorly and B/L renal angle posteriorly.

**Rupa:** Constant, dull, fixed and pricking type of pain.

**Diagnosis:** *Kaphaja Ashmari* (Renal Calculus)

**USG Abdomen Impression:** Bilateral Renal Calculi

#### *Vataja Ashmari Samprapti*

The *Prakupita Kapha* in ordinate saturated with *Vata Dosha* acquires *Sanghata* and *Parivridhi* and these lies at *Basti Shira* and obstructs the passage of urine<sup>10</sup>.

**Table 3: Vataja Ashmari-Uretric Stone**

<b>Vataja Ashmari<sup>11</sup></b>	<b>Ureteric Stone<sup>12</sup></b>
While migrating from one place to other the spiky stones cause injury and sometimes get obstructed in the urinary passage. Pain is radiating from <i>Nabhi, Basthi, Sevani, &amp; Mehana</i>	The pain occurs typically at loin and radiates to groin. When the stone descends to lower ureter pain radiates to the testicle (male), labia majora (female) and upper portion of the inner part of thigh.
The patient with pain passes urine drop by drop with straining	Stranguary means passing of urine drop by drop with painful straining

### Why Radiating Pain Occurs in *Vataja Ashmari* (Uretric Calculus)

#### Ureter has 3 constrictions

1. Uretro pelvic junction
2. When it crosses external iliac vessel
3. Vesico-ureteric junction
  - When the stone is descending from kidney in to the ureter pain is severe because, the diameter of renal pelvis is 1 cm and the ureter is 2 to 3 mm in some condition the abrupt narrowing of the ureter causes stagnation of the stone.
  - When a stone is enters into ureter or obstructed in ureter (constrictions), ureteric pain occurs. The pain is very severe and colicky; it is caused due to hyper peristalsis and violent contraction of smooth muscles of ureter.
  - The referred pain occurs due to common innervations of upper ureter and testis, and lower ureter and inner side of upper part of thigh.

#### Case-3

- Patient (35/M, farmer), One day suddenly he noticed severe colicky pain in right lumbar region. Micturition is normal.

**Rupa:** *Teevra Vedana* near *Nabhi Pradesha*

**Diagnosis:** *Vaataja Ashmari* (Upper Uretric Calculus)

**USG Abdomen Impression:** Right Upper Ureteric Calculus

#### Case-4

- Patient (34/M, business), One day suddenly he noticed severe radiating pain from right lumbar region to supra- pubic region.
- O/E Tenderness present in umbilical region

**Roopa:** *Teevra Vedana* in near to *Nabhi Pradesha* and *Mehana*

**Diagnosis:** *Vaataja Ashmari* (Lower Uretric Calculus)

**USG Abdomen Impression:** Right Lower Ureteric Calculus (At level of iliac vessel crossing).

#### Case-5

- Patient (45/F, Housewife). One day suddenly She noticed severe radiating pain from right lumbar region to thigh and labia majora.
- O/E Tenderness present in hypo- gastric region

**Roopa:** *Teevra Vedana* in near to *Nabhi Pradesha* and Genito Urinary region.

**Diagnosis:** *Vaataja Ashmari* (UV Junction Calculus)

**USG Abdomen Impression:** Right Uretro -Vesicle Junction Calculus.

***Pittaja Ashmari Samprapti***

The *Kapha Dosha* dried with *Prakupita Pitta* becomes hard, condensed and large in the aforesaid way and lying at *Basti Shira* obstructs the passage of urine<sup>13</sup>.

**Table 4: *Pittajaashmari*-Vesicle Stone**

<i>Pittaja Ashmari</i> <sup>14</sup>	Vesicle Stone <sup>15</sup>
When <i>Pitta</i> is associated with <i>Kapha-Pittaja Ashmari</i> is formed and obstruct the urinary passage. Due to this burning and sucking type of pain in <i>Basti</i> region.	Burning and sucking type of pain occurs. When the stone approaches the bladder and symptoms of vesicle irritability are observed. Stone impacting very near the bladder can exactly mimic and acute cystitis. This is caused by abrasion of vesicle

**Case-6**

- Patient (54/M, Farmer) was asymptomatic 1month ago. One day he noticed sucking type of pain and burning sensation in supra- pubic region.

**Roopa:** *Daaha* in *Basti* region- below umbilical region

**Diagnosis:** *Pittaja Ashmari* (Vesicle Calculus)

**USG Abdomen Impression:** 8mm Calculi in urinary bladder.

***Shukrashmari***

The stone formed in Seminal Vesicle. After the formation of Semen if *Sukra Vega* is suppressed, instead of expelling out it gets *Vimarga Gamana* and lodged in between *Vrushana* and *Medra*. At this stage *Vata* dries up the *Sukra* and stone is formed<sup>16</sup>. There is pain in Suprapubic region, difficulty in micturition and swelling in scrotum. When *Shukra* is expelled out the *Ashmari* is relieved.

**DISCUSSION**

It is a *Tridoshaja Vyadhi*, *Kapha Dosha* takes important part in hardening the *Ashmari* and *Vata*, *Pitta* dries up the *Mutra* along with *Kapha* in *Mutravaha Srotas*. Variation in structure and function of kidney, ureter and bladder the symptoms of *Ashmari* vary in its presentation. The sequence that was being followed by *Sushruta* for the classification of *Ashmari* types is *Kaphaja*, *Vataja* and *Pittaja*, which is very much similar symptomatically or clinically with the modern science. *Kaphaja*, *Vataja* and *Pittaja Ashmari* symptoms which are being explained above proves similarities with *Ashmari* in kidney, ureter and urinary bladder respectively. Depending on *Lakshanas of Ashmari*, stone present in the Kidney may not have severe pain; however there may be dull, constant ache (*Dhalyate*, *Visiryathe*, *Suchibiriva* etc.,) fixed to renal angle (*Kaphaja Ashmari*-Renal Calculus). Stone starts descending from Kidney to ureter, due to its narrow passage, it will get arrested in ureter and sudden severe colicky pain occurs in abdomen (*Teevra Vedhana* in *Nabhi Mehana*, *Guda*) which radiates from loin to groin (*Vataja Ashmari*- Uretric Calculus). When Stone reaches Urinary Bladder symptoms like burning, sucking type of pain (*Dahyathe* and *Pachyathe*) in supra- pubic region (*Pittaja Ashmari*-Vesicle or Bladder Calculus) will be seen.

**CONCLUSION**

As the explanations in contemporary science are also based on mainly the symptoms and the characteristics of the calculus, comparative knowledge of it with *Ayurveda* may help the physician in proper diagnosis of the disease.

By comparing the *Lakshanas* of *Ashmari* with Urinary calculus we find that both are similar. By this comparison we may conclude that the *Susrutha's* sequential arrangement of types of *Ashmari* are *Kaphaja Ashmari* is Renal Calculus (Kidney), *Vataja Ashmari* is Uretric Calculus (Ureter) and *Pittaja Ashmari* is Vesicle Calculus (Bladder).

**REFERENCES**

1. Sushruta, Sushruta Samhitaa Sutra Sthaana 33/4, Page 144 with Nibanda sangraha of dalhana and Nyaya chandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014
2. Peter J.M, William C.W. Oxford Text Book Of Surgery. 2<sup>nd</sup> ed. Oxford University Press; 2000. p.2082.
3. Sushruta, Sushruta Samhitaa Sareera Sthaana 9/12, Page 386 with Nibanda sangraha of dalhana and Nyaya chandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014.
4. Agnivesha, Charaka & Dridabala, Charaka Samhita Vimana Sthaana 5/8, page 250-1, with Aayurveda Deepikaa commentary of Chakrapani edited by Vaidya Yadavaji Trikamji Acharya, Chaukhamba Surbharati Prakashana, Varanasi, Reprint edition 2011.
5. Aruna. Essentials Of Kaya Chikitsa. Vol 2,1<sup>st</sup> ed. Sushma Graphics; 2008.p397.
6. Sushruta, Sushruta Samhitaa Nidaana Sthaana 3/3, Page 276 with Nibanda sangraha of Dalhana and Nyaya chandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014.
7. Sushruta, Sushruta Samhitaa Nidaana Sthaana 3/8, Page 277 with Nibanda sangraha of dalhana and Nyaya chandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014.
8. Sushruta, Sushruta Samhitaa Nidaana Sthaana 3/8, Page 277 with Nibanda sangraha of dalhana and Nyaya chandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014.

9. Aruna. Essentials Of Kaya Chikitsa. Vol 2,1<sup>st</sup> ed. Sushma Graphics; 2008.p406-7.
10. Sushruta, Sushruta Samhitaa Nidaana Sthaana 3/10, Page 278 with Nibanda sangraha of dalhana and Nyaya chandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014.
11. Sushruta, Sushruta Samhitaa Nidaana Sthaana 3/3, Page 276 with Nibanda sangraha of dalhana and Nyaya chandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014.
12. Aruna. Essentials Of Kaya Chikitsa. Vol 2,1<sup>st</sup> ed. Sushma Graphics; 2008.p403-4.
13. Sushruta, Sushruta Samhitaa Nidaana Sthaana 3/9, Page 277-8 with Nibanda sangraha of dalhana and Nyaya chandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014.
14. Sushruta, Sushruta Samhitaa Nidaana Sthaana 3/8, Page 277 with Nibanda sangraha of dalhana and Nyayachandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014.
15. Aruna. Essentials Of Kaya Chikitsa. Vol 2,1<sup>st</sup> ed. Sushma Graphics; 2008.p405.
16. Sushruta, Sushruta Samhitaa Nidaana Sthaana 3/12, Page 278 with Nibanda sangraha of dalhana and Nyayachandrika Panjika of sri gayadasa commentary, edited by Vaidya Yadavaji Trikamji Aachaarya, Chaukhamba Surbharati Prakashana, Varanasi, reprint edition 2014.

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