



# CONCEPTUAL ANALYSIS ON MUTRAVAHA SROTAS W S R TO ANATOMICAL ASPECTS

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## **ABSTRACT:**

Acharyas have used the terms like Vrukkou, Gavini, Basti, Mutra praseka, Mutravaba Srotas, Mutravaha Dhamani, Mutravaha Sira, and Mutra vaha Nadi in relation to explain Urinary system. The word 'Gavini' is available in Atharva Veda only. In Ayurveda, the Srotas is called as channels of circulation, the doshas, the seven dhatus, the oja etc. move the one part of the body to another via these channels called srotas. The srotas or channels in the body act like paths or transporting blood and sensory information, absorbing nutrients and expelling waste products from the body.

As we know srotas is most controversial but very important point, as it is recognized as the structural and functional unit of the body. In this row Mutravaha Srotas is one of the most important and functional srotas, this Mutravaha Srotas is also a very controversial topic.

In Ayurvedic classics Acharya Charaka said Moolstana of Mutravaha Srotas considered Basti and Vankshana, while Acharya Sushrut considered Moolstana of Mutravaha Srotas Basti and Medra. Hence Mutravaha Srotas is one of the most important srotas of our body and minute dysfunction may lead to problem, so here we must have to study to understand its anatomical concept of Mutravaha Srotas and its applied anatomy.

**KEYWORDS:** Mutravaha Srotas, Dhatus, Channels, Basti, Vankshana, Medra, applied anatomy.

## INTRODUCTION:

The term Mutravaha Srotas appears in Sushruta Samhita, where in it has been always used in dual sense, Acharya Charaka and Vagbhata have used Mutravaha Srotamsi in plural sense. Acharya Charaka and Vagbhata have not fixed any number. Acharya Sushruta has specifically mentioned Mutravaha Srotas being two in number. Anatomical Aspect: Charaka opines that Srotas when normal they are having the color of the element they carry, tubular in structure either large or minute, elongated or reticulated in appearance.

Acharya Charaka mentioned the Basti and Vankshana as mula of Mutravaha Srotas and Acharya Sushruta considered Basti and Medhra. Physiological aspect: The main function of Mutravaha Srotas is production of Mutra. Expelling out the liquid excretory products through Mutra. It carries the Kledatwa of the body - so " Mutrasya Kleda Vahanam.

This Mutra does filling of Basti (Basti Purana) and gives Mardavata or Mrudutwa to Basti. Whatever Udaka or Kleda is produced after the digestion is further gets transformed or metabolized into Mutra in Mutravaha Srotas. So "Srotamsi khalu Parinama mapadyamananam Dhatunam abhivaheeni" can be understood here.

## INTERRELATED ORGANS OF MUTRAVAHA SROTAS:

- Gavini
- Vrukkou,
- Basti
- Mutra praseka
- Mutravaba Srotas,
- Mutravaha Dhamani
- Mutravaha Sira, and
- Mutra vaha Nadi

Acharyas have used the terms in relation to explain Urinary system. The word 'Gavini' is available in Atharva Veda only.

## VRUKKA:

**Etymology:** The term Vrukka has been derived from the original Dhatu "Vruk Adane" which when further suffixed by 'Kak' giving rise the final word Vrukka meaning to accept, to take etc. Vukka is its synonym (Shabdakosha).

Embriologically it is originated from Prasada or Sara bhaga of Rakta and Meda<sup>4</sup> Vrukka are soft in nature and are derived from Matruja Avayava.

**Gross anatomy:** Most of the Acharyas described the Vrukka as a Koshthanga, which reveals the situation of Vrukka in Koshttha. They are dual in numbers, situated on either sides of the vertebral column. Dalhana speaks that they are ball shaped, compact and dense, covered by fleshy masses and lie in the Kukshi region. The two Vrukka are situated just below the Vaksha. They have been narrated as a Mula Sthana of Medovaha Srotas. Vrukka and Tila (Kloma) are the mula of Aharajalavahisira.

### **FUNCTIONS:**

Describing the functions of Vrukka, Acharya Sharangadhara has stated them to be the nourisher of Jatharastha Meda Dhatu, commenting on this Kashirama finds a relationship between Vrukka and Aharajalavahisira (its mula is Kloma or Tila) by saying that Vrukka are the mula of these Sira. Sharangadhara says that Vrukka nourishes only the Meda present in Jathara pradesha not in other places.

### **GAVINI:**

We get reference of Gavini in Atharvaveda only, Sayanacharya the commentator of Atharvaveda explains that, the source of Mutra expelled from the Antra, having forward movements are the two tubular structures called as “Gavini” (gavinyou), which are located on either sides of the body (Parshwa) and are placed upon (vastavadhi) the Basti, which is the Ashaya of Mutra. However, no direct reference is available in Ayurvedic classics.

Just as the incoming rivers are continually making the ocean wet, so is the Basti, which is continually fed with Mutra, retains it for a period of time (Dharana) and then releases it (Poshana). Just as the mouth of river gets dilated so does the aperture (inner and external urethral meatus) of the Basti (Bastibila) to expel out the urine. Just as an arrow released from a taut bow reaches its destination so does the Mutra expelled from the bow shaped Basti. This unobstructed stream is the aim of the treatment of a person suffering from Mutra roga (Mutrarogarta).

The description of the “Gavini” seems identical to that of the ureters. The urethral passage is also described and so is the functioning of them in the instance of dilatation of the mouth of the rivers. The fact that the Basti is continually made wet is further substantiated by Sushruta's description in Sushruta Nidana. (Tarpayanti sada Mutram saritah sagaram yatha, sukshmatwannopalabhyante mukhanyasam sahasrashah, jagratah swapatashchaiva sa nisyandena puryate).

### **BASTI:**

The essence part of the Rakta and Kapha after being digested by Pitta along with Vayu forms the Basti, Antra and Guda. Further in this context Sushruta explains that the hollow shape is formed when the essence parts are inflated by the repeated action of Vayu. Charaka has not explained about the embryological origin but has encountered it in Matruja Avayava.

Regarding the location Sushruta and Vagbhata opines that the Basti lies between the Nabhi, Prushtha, Kati, Vrushana (Mushka), Guda, Vankshana and Shepha (Medhra/Linga). The Basti, Bastishira, Pourusha, Kati, Vrushana and Guda are all related to one another and situated within

Gudasthivivara (Cavity of rectal bone/Pelvic cavity). Further in the chapter of Ashmari Chikitsa Sushruta and also Vagbhata states that in females the Urinary bladder is situated very near and side to the Uterus.

Acharya Charaka mentions that Basti is located in the midst of Sthula Guda, Mushka, Sevani, Shukra Vaha and Mutravaha Nadi, is the receptacle of urine into which all the channels of the body carrying liquid elements converge as all the rivers on the earth flow into the ocean

Further Chakrapani commenting on the same verse explains that Basti is the resort (Ashraya) of all the surrounding organs and it is the resting place of Ambu vaha Srotas. The channels connected to their mula which are Marma and which provide nourishment to them because of which even these channels are called as Marma. Bhavamishra and Sharangadhara have mentioned that the Basti is located below the Malashaya. Amarasimha mentions it to be situated below the Nabhi.

### **MUTRAPRASEKA:**

There are no direct references available regarding the size, shape and other specific anatomical details of Mutra Praseka but some relevant and cross references in Uttara Basti chapter gives a superficial idea about the length of Mutra Praseka. Where in the Uttara Basti (Pushpa) netra pramana is said to be of 12 or 14 angula in male and 10 angula in female. Further it has been explained that in males it should be administered up to half of its length i.e. 6 to 7 angula or up to Madhya karnika. Therefore the length of Mutra praseka in male is about 6 to 7 angula. In female it has to be introduced up to 2 angula, hence the length of Mutra praseka in female is about 2 angula. Acharyas opinion about Mutra praseka is identical to that of "Urethra".

### **\* Mutravaha Dhamani:**

Sushruta and Vagbhata have said that the 10 Adhogami Dhamani carry the different body elements such as Vata, Mutra, Pureesha, Shukra and Artava respectively. Another important function attributed to them is the separation of Mutra, Pureesha and Sweda from the Anna rasa in the region of Pittashaya.

Further Sushruta says that these Adhogami Dhamani are divided into 30 branches and out of these 2 are Mutravaha Dhamani that precedes Mutra to Basti. Dalhana says that they divide into innumerable branches and are termed as Mutravaha Nadi Functions of Mutravaha Dhamani include Dharana and Yapana karma of Mutra and Basti. Vagbhata has given identical description about their functions as transportation of Mutra.

### **DISCUSSION AND CONCLUSION**

In few words, it can be summarized that the Mutravaha srotas is one of the most important system of human. As per Acharya, the detailed knowledge of normal human body is helpful to understand the factor influencing health and therefore such knowledge is widely appreciated by experts. It is impossible to do surgeries and to treat disease effectively without the deep knowledge or Sharir Rachana.

Here the Ayurvedic literature revealed that the ancient science was fully developed but by the time

it is fade up due to lack of researches and references. Here we can conclude that as our classics or Acharayas said in literature was so authentic that time, but as time passes we must re-modulate this, we will more able to understand that times concept more signifyingly.

From this whole study, we can understand that: - Acharaya Charaka stated that the Moolsthanas of Mutravaha srotas are Basti and Vankshana. In present era “Basti” is more relevant to “Urinary Bladder” “Vankshana” is relevant to “Lumbosacral region.” “Vankshana” is also related to “Vrikka” but in context of Vrikka with Gavini, whole urinary system is more appropriate to consider as “Vankshana.

Acharaya Sushruta mentioned Mutravaha srotas Moolsthanas are Basti (Urinary Bladder) and Medra (mutrendriya). Therefore, we can co-relate Medra with male and female urethra. This is more significant to say that Medra is Penial part of urethra in male, which takes part to excrete out Mutra and ejaculate Shukra. While in female it is correlated with Urethral part which takes part to excretes out Mutra only.

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