

**ANATOMICAL CONCEPT OF MUTRAVAHA SROTAS IN PRESENT ERA****Dr. Sushma Baretiya\* and Dr. Dinesh Choudhari**

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**ABSTRACT**

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 our Ayurvedic classics many Acharyas mentioned many srotas like Pranvaha, Raktavaha, Udakvaha, Mansvaha, Medovaha, Anavaha, Asthivaha, Majjavaha, Shukravaha, etc. 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 etc.**INTRODUCTION**

In Ayurvedic classics, proclaim "Srotomya hi Purusham"<sup>[1]</sup> living body is a channel system and/or it is comprised of innumerable channels which are designed as inner transport system of divergent function, gross and subtle, biological and energetic. Ordinarily the word srotas is used as a generic term indicating all the macro and micro channels and pathways operating in the living organism. The srotas is derived from Sanskrit root "Sru+Gatau (Sru+Tasi=srotas) which means moving, filtering, flowing, leaking, secreting etc.

Acharya Charaka has defined it as "Sraavnata Srotamsi"<sup>[2]</sup> means the structure through which sraavn takes place. Chakrapani has explained that Sraavnata means sraavn of rasadi dhatus, poshya. The Srotas means channels or system in which some tissues are formed, some material is metabolized, secreted or transported.

Ancient Acharyas have described Mutravaha Srotas in many aspects which include the embryology, etymology, anatomy, physiology etc. of urinary system.

However, Mutravaha srotas is quite controversial point to study, many Acharyas said about this in classics such as:-

Acharyas Sushrut contained two Moolstana of Mutravaha srotas -Basti (urinary bladder) and Medra (urethra)<sup>[3]</sup>

Acharyas Charaka contained two Moolstana of Mutravaha srotas – Basti (urinary bladder) and Vankshana (lumbosacral region).<sup>[4]</sup>

**AIMS AND OBJECTIVES**

Anatomical concept of Mutravaha srotas in present era.

**REVIEW OF LITERATURE**

Anatomical review: - In the classics description of following anatomical structures are given relations to the Mutravaha srotas.

**BASTI**

Basti is an organ act as a receptacle or reservoir of urine, is situated in the lower part of part of Nabhi. Acharya Sushruta and Charaka both mentioned it as Moolstana of Mutravaha srotas. Basti is also called Mootraashya, Mootradhara, Mootra basti, Mootraputa. This is "Alabu"<sup>5</sup> shaped and is fixed all side by snayus and siras.

**Embryological development:** - During fetal life basti is derived from the maternal contribution. (Mattrajbhav).<sup>[6]</sup>

**Position of Basti:** - Acharya Sushrut, this is surrounded by Nabhi, Prishta, Kati, Mushka, Guda, Vankshana, and Shepha.<sup>[7]</sup>

**According to Anatomy:** - Apex of the urinary bladder related to umbilicus by the median umbilicus ligament, the upper part of the base separated from the rectum by the retro vesical pouch and lower part is related to terminal part of the vasa deference.<sup>[8]</sup>

### VRIKKA [Kidney]

It is derived from the root “Vrikkadhan” means to take. Vrikka are two in numbers and are situated in lumber region in either sides in the posterior abdominal wall in “koshta”.<sup>[9]</sup>

**Embryological Development:** - Vrikka is also developed by the maternal contribution derived from the essence of “Rakta” and “Meda”.<sup>[10]</sup>

### GAVINI (Ureter)

The ureter is one of the two uterine tubed that carries urine from the kidney to the bladder. Each ureter is about 10-12 inches long. Urine flows down part by gravity, but mainly by waves of contractions which passes several times per minutes through the muscles layers of urethral wall.<sup>[11]</sup>

### MUTRAPRASEK

This is signifying the urethra, mainly its penile part. This is also called Mutraputak, Mutramarga, Mutra srotas. It is outlet of Basti, which are two angula in females and 12 angula in males. In males, it carries Mutra and Shukra, while in females it only carries Mutra.<sup>[12]</sup>

**According to modern:** - Ureter is the vessels through which urine passes after leaving in bladder. During urination, the smooth muscles lining the urethra relaxes in concert with bladder contraction to forcefully expel the urine in a pressurized stream.<sup>[13]</sup>

### MUTRAVAHA NAADI

As states by Acharya Sushruta Mutravaha Naadi are situated in between the Amashaya, Pakwashaya and Basti. These Naadi have thousands of minutes’ openings which are very small in visualize. These function is Mutra nishyandan (urine filtration). Continuously drain urine in Basti and keep it moist or filled with urine in the same manner, as river drain water into ocean.<sup>[14]</sup>

### MUTRAVAHA DHAMNI

These are basically in three types, total 30 in numbers. Adhogami, depending upon the direction of their course, these are 10 in numbers. Adhogami Dhamni transport Vata, Mutra, the Mutra Basti are termed as Mutravaha Dhamni. Its function said to be Dhamna and Yaapna of Mutra in Basti.<sup>[15]</sup>

### MUTRAVAHA SIRAS

The description of this especially available in Ashtang Hridaya, where these are regarded as minute channels

carrying of mutra in Basti. These Siras are opening in the lateral side of the Basti and filled the Basti with Mutra continuously by the process of Nishyandan.<sup>[16]</sup>

### 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 Acharaya, 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 Rachna. 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 co-related with Urethral part which takes part to excretes out Mutra only.

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