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EXPLORING THE IMPORTANCE OF TAIL BINDU PARIKSHA IN MUTRAKRICHHA

Dr. Simran Maheshwari^{1*}, Dr. Kamal Nayan Dangwal², Dr. Sonu³, Dr. Shashi Kant Tiwari⁴ and Dr. Ruby Rani Agarwal⁵

^{1,2,3} PG Scholar, ⁴ Assistant Professor, ⁵Professor & HOD, Department of Rog Nidan Evum Vikriti Vigyan Rishikul Campus, Uttarakhand Ayurveda University, Haridwar.

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*Corresponding Author Dr. Simran Maheshwari

PG Scholar, Department of Rog Nidan Evum Vikriti Vigyan Rishikul Campus, Uttarakhand Ayurveda University, Haridwar.

ABSTRACT

Mutrakrichha, a urinary disorder, is extensively described in ancient Ayurvedic texts, indicating its widespread prevalence during that era and highlighting its significance within the Mutravaha Srotas disorders. This disease affects the Basti Marma, a critical area encompassing the urinary bladder, which is one of the three primary vital organs (Trimarma). Consequently, its treatment holds significant therapeutic value. Basti is also mentioned as Pranayatana in Charaka Samhita. It has been given much importance that it has been mentioned both in the context of Dasha Pranayatana and Marma. As the ancient Ayurvedic texts emphasize, accurate diagnosis is the cornerstone of effective treatment. A thorough diagnosis helps identify the root cause (Nidana) of the disease, allowing for targeted treatment and prevention of complications. Tail Bindu Pariksha is an Ayurvedic type of urine examination tool that not only aids in diagnosis but also provides valuable prognostic information. This test is based on the pattern,

shape, and direction of oil spreading over a stable surface of a urine sample. By integrating traditional diagnostic methods, the research seeks to enhance the understanding and management of urinary disorders through a comprehensive approach. This study will help in assessing the diagnostic and prognostic relevance of *Tail Bindu Pariksha* in *Mutrakrichha* in the contemporary medical scenario.

KEYWORDS: *Mutrakrichha, Tail Bindu Pariksha,* Urinary Disorders.

INTRODUCTION

As per *Ayurvedic* literature, the Physiology of formation of *Mutra* (urine) takes place due the activity of *Jatharagni* on *Ahara*, from its *Kitta Bhaga*. Urinary diseases are included under *Mutravaha Srotasa*. The term *Mutrakrichha* comprises of two words *Mutra* and *Krichha*, the disease in which urine is passed with difficulty is called *Mutrakricha*. *Mutrakrichha*, or difficulty in micturition, is a hallmark of several urinary illnesses that fall under the category of *Mutravahasrotas*.

The *Mutrakrichha*, "*Dukhan Meh Pravritti*" (discomfiture during micturition) is the *Pratyatma Lakshana*. In *Mutrakrichha* the *Basti* is vitiated by *Dosha* when they are affected by one or more of their recurring etiological elements. The symptoms of *Mutrakrichha* include *Daha* (burning sensations), *Ruja* (pain), *Muhurmutrata* (frequent urination) and *Basti Guruta* (heavy bladder).^[1]

Mutrakrichha is of eight types. Acharya Sushruta has not mentioned Dwandaja, Shukraja, and Raktaja Mutrakrichha among the eight types. [2] Acharya Charaka mentioned Mutrakrichha in Chikitsa Sthana 'Trimarmiya Adhyaya' but has not considered Dwandaja, Purishaja, and Shalyaja Mutrakrichha under it.

Ativyayama (Excessive exercise), Tikshana Aushadha Sevana (Drug of strong potency), Ruksha-Madhya (dry meal and excessive alcohol intake), Durtprishtayanat (Riding on a fast-moving vehicle, horse riding), Anupa Matsya and Mansa Sevana (Overeating meat of marshy animals and fish), Adhyasana (Eating before digestion of previous meal), Ajirna (Indigestion) are the causative factors of Mutrakrichha. [4] "Katiskandhatidharanat" is a cause of Mutrakrichha mentioned in Kashyapa Samhita, referring to the strain caused by lifting heavy loads on the lower back and shoulders. [5] Ayurvedic literature mentioned various strategies for accurately diagnosing a patient's condition.

The Astavidha Pariksha is one of the Rogi-Rog Parikshas, according to Yogratnakar, and is an essential technique for assessing patients and diagnosing illnesses. It includes-

"Nadi Pariksha, Mutra Pariksha, Mala Pariksha, Jivha Pariksha, Shabda Pariksha, Sparsha Pariksha, Drik Pariksha and Akriti Pariksha. [6]"

During the medieval era, the *Mutra Pariksha* was widely discussed as a diagnostic and predictive tool. Nowadays, urine examination includes physical and chemical analysis of the

urine. Physical measurements were made of urine's volume, color, odor, appearance, and specific gravity. The urine's chemical examination included the abnormal substances discovered in urine under different clinical conditions such as protein, glucose, ketones etc.

Dysuria is the closest modern medical term that correlates with *Mutrakrichha*. It is characterized by burning, soreness, or discomfort during urinating. It should be differentiated from other types of bladder discomfort such as pressure, pain, or discomfort that often rises with bladder volume, such as suprapubic or retropubic. Urinary Tract Infection is caused by the growth of harmful bacteria in the urinary system.

Dysuria- is the burning, tingling and stinging sensation in the meatus and urethra during urination.

Inflammatory disorders of the bladder and urethra are the most common causes of dysuria. Among these, infections of the bladder, urethra, kidneys and genital organs are the most prevalent, including uncomplicated cystitis, pyelonephritis and urethritis. Non-infectious inflammatory causes include a foreign body in the urinary tract and dermatologic conditions.

For Tail Bindu Pariksha, a urine sample of 200–220 ml should be collected.

Urine should be collected before 4 *Ghatika* in the last *Yam* of the night.^[7] *Yam* corresponds to the 8th part of the day. "Last *Prahar* of night" means three hours before sunrise. Since one *Ghatika* lasts for 24 minutes, four *Ghatikas* last for 1 hour and 36 minutes.

For the *Tail Bindu Pariksha* the Urine should be collected in glass vessel.^[8] And the following parameters will be noted-

- i. Direction of spread of oil over the surface of urine.
- ii. Spread time.
- iii. The final shape attained over the urine surface.
- iv. Split time.

Prognosis of the disease based on following criteria Shape of the oil drop on surface of urine

Shape	Prognosis
Chalini (sieve)	Kuladosha
Narakaram	Bhutadosha
Mandala (circular shape)	Vata
Budbuda (bubbles)	Pittaja

Bindu (globule or droplet)	Kaphaj
Sinks in the urine	Sannipataja

By spreading nature of the oil

Spreading nature	Sadhya-Asadhyata
If oil drop spreads immediately	Sadhya
Does not spread	Kastasadhya
Sinks in urine	Asadhya

By spreading direction of the oil

Direction	Prognosis
Purva (east)	Gets relief
Dakshina (south)	Suffer from <i>Jwara</i> (fever) and gradually recover
Uttara (north)	Cured
Pashchima (west)	Sukha and Arogya Prapti i.e. happy and healthy.
Ishanya angle (Northeast)	Dies in one month.
Agneya (Southeast) or Nairitya (Southwest)	Dies
Vayavya (Northwest)	No chance of servility even if nectar is given

Spreading the oil's shapes

Shape related to Sadhya conditions (Good prognosis)

Shape	Means
Hansa	Swan
Tadaga	A tank, pool
Kamal	Lotus
Gaja	Elephant
Chamvara	Belonging to Chowrie
Chhatra	An umbrella
Torana	An arch, arched doorway
Parvata	Resembling a mountain or any shape that resembles a mountain.
Vriksha	A tree
Matsya	Fish

Shape related to Kastasadhya conditions

Shape	Means
Valli	A creeper
Mridanga	A type of drum
Manushya	A person
Bhanda	A pot
Chakra	A wheel
Mriga	An Animal

Shape related to Asadhya conditions

Shape	Means
Hala	A plough
Kurma	A tortoise, turtle

Sairibha	Buffalo
Sira vihina nara	Man without head
Sastra	Dagger, it is indicative of a weapon used for cutting or wounding
Khadaga	A sword, a long weapon
Dhanus	Abow
Trisulam	Type of weapon with three sharp edges
Vrischika	Scorpion
Sarpa	Snake
Mushika	Rat
Vyaghra	Tiger
Markata	Monkey

DISCUSSION

Ayurvedic Samhitas mentioned detailed description of Nidana, Samprapti, Bheda, Lakshana and Chikitsa of Mutrakrichha Vikara. Micturition is under the control of Apana Vayu. [9]

So, *Apana Vayu*, *Mutra* and *Mutravaha Srotas* are directly involved in the pathogenesis of *Mutrakrichha*. Urine serves as a vital diagnostic tool for identifying disorders of the urinary and genital systems. According to *Yog Ratnakar*, during illness, the body's physiological balance is disrupted, leading to changes in *Vata*, *Pitta*, and *Kapha*, which in turn alter the urine's chemical composition, affecting the patterns observed in *Taila Bindu Pariksha*.

One theory about the different ways that oil spreads on the urine is that the spread is most likely influenced by surface active molecules and other metabolites found in trace amounts. The spreading pattern of oil is determined by these substances, which are often not recordable. One possible explanation for the directional spread of oil is the existence of paramagnetic molecules, which might align with the earth's magnetic field to give the oil a directional spread. Different shapes, speeds, and distribution extents may be possible depending on the interfacial tension between the oil and the surface-active molecules. Various shapes of oil drop have been described for prognosis in texts.

Due to the presence of various chemical and microscopic changes in urine, these criteria will be essential in assessing the prognosis in various types of *Mutrakrichha* mentioned in *Ayurvedic* literature. The size, shape, and direction of the *Tail Bindu* will vary in accordance with the severity or progression of the disease.

CONCLUSION

Tail Bindu Pariksha serves as a prognostic tool, enabling Ayurvedic practitioners to predict disease outcomes. Tail Bindu Pariskha also provides valuable insights into the prognosis

(Sadhya-Asadhyata) of a disease, involvement of Dosha, and characteristics of the urine, including color (Varna) and odor (Gandha). These factors play a crucial role in understanding the Dosha involvement and disease prognosis. By integrating this method into treatment plans, healthcare providers can offer personalized care to the patient's evolving condition. As conventional lab tests lack instant prognostic capabilities, this cost-effective approach can fill a critical gap in predictive medicine. Hence, Mutra Pariksha is an important ancient diagnostic and prognostic tool of assessment.

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