

## A CONCEPTUAL STUDY ON MUTRAKRICCHA

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### ABSTRACT

*Mutrakriccha* is one of the diseases founding about all *Ayurvedic* Classics. The word *Mutrakriccha* comprises of two words, *Mutra* and *Krucchra*, which means *Krucchra Pravrutti* of *Mutravahana* (difficulty in micturition). *Mutrakriccha* can be independent complaint as well as associated symptoms in other disease *Ashmari*, *Mutraghata*, *Mutraja vriddhri*, *Arsha* and *Gulma* etc. *Mutra* (Urine) is one among the *Trimala* (Three waste products) and it plays a major role in *Kledavahana* (Transportation of sweat). *Mutravega* is one of the *Adharaniya Vegas*. According to *Ayurvedic* literature, *Mutrakriccha* has been classified as 8 types by *Charak* as well as *Sushrut*. The classification is made according to *Doshas*. The term *Mutrakriccha* comes under the disorders of *Mutravaha Srotas*, description of this disease is mentioned in almost all classical texts which reflects its prevalence in ancient period. It is a disease involving *Basti Marma*. As *Basti* is one among the *Trimarma* (main three vital organs), it has great therapeutic importance. In *Mutrakriccha*, the vitiated *Pitta Dosh*a with *Vata* (mainly *Apana Vayu*) on reaching *Vasti* (bladder) afflicts the *Mutravaha Srotas* due to which the patient feels difficulty in micturition along with symptoms like *Peeta Mutrata*, *Sarakt Mutrata*, *Sadaha Mutrata*, *Saruja Mutrata* and *Muhur-muhur Mutrata*. As manifestation of *Mutrakriccha* and lower urinary tract infection are similar, an attempt had been made in this article to understand the concept of lower urinary tract infection in *Ayurveda* with comparison to modern concept. Urinary tract infection is very common condition seen in middle aged and elderly females, up to 50% of women suffer from urinary tract infection but in male urinary tract infection are not so common due to shorter urethra which allow the bacteria quick access to the bladder.

**KEYWORDS:** *Mutrakriccha*, Urinary tract infection, *Mutravaha Srotas*, *Ayurveda*.

### INTRODUCTION

The diseases of urinary system are dealt under two broad headings in *Ayurveda*. They are *Mutrakriccha* and *Mutraghata*. The symptoms complex of both *Mutrakriccha* and *Mutraghata* seems to be overlapping each other, but *Acharya Dalhana*, *Acharya Chakarpani*, *Acharya Vijayarakshita* have demarcated the difference between them. This difference is based on the intensity of obstruction. The earlier suggest that the disease is characterized with painful micturition whereas latter with more of obstruction.<sup>[1]</sup> *Mutra* is an outcome product digestion of food and metabolism whereas in the body, it passes through urethra.<sup>[2]</sup> In both *Mutraghata* and *Mutrakriccha*, *Kriccharata* and *Mutra Vibandhata* are simultaneously present but in *Mutrakriccha* there is preponderance of *kricchata*. The term *Mutrakriccha* comprises of two words *Mutra* and *Kriccha*, the disease in which urine is passed with difficulty is called *Mutrakriccha*.<sup>[1]</sup> In our classical text the urinary disorders are described in the form of 8 types of *Mutrakriccha*, 13 types of *Mutraghata*.<sup>[3]</sup> 4 types of

*Ashmaris* and 20 types of *Premeha*. *Acharya Kashyapa* had also described the sign and symptoms of *Mutrakriccha* in *Vedna Adhyaya*.<sup>[4]</sup> A healthy urinary tract is generally resistant to infections. However, for anatomical reasons female lower urinary tract is more susceptible. Predisposing factors for recurrent urinary tract infection include female sex, age above 6 months, obstruction uropathy, severe vesicoureteric reflux, constipation and repeated catheterization poor hygienic conditions and environment, poverty and illiteracy also contribute to the increasing percentage of urinary tract infections. Urinary tract infections is a common contamination among females and males but due to physiology of females the incidence is quite high in women.<sup>[5]</sup> It occurs more in females than males, at a ratio of 8:1.<sup>[6]</sup> Prevalence in women is 3% at age 20, rising by 1% per decade thereafter. The term UTI covers a range of conditions of varying severity from simple urethritis and cystitis to acute pyelonephritis with septicemia.<sup>[7]</sup> 50 to 80% of women is 3% have at least one UTI during their life span. *Escherichia coli* have approximately 68%

of frequency for causing UTI and other common bacteria are proteus, Klebsiella, Enterobacter, pseudomonas etc.<sup>[8]</sup> As the name indicates, the infected parts involves the urinary tract comprising of the upper and lower urinary tract. The symptoms of urinary tract infection are similar to *Mutrakriccha* as described in *Ayurveda*.<sup>[9]</sup> Urinary tract infection is defined as multiplication of organisms in urinary tract. When the infection is restricted to lower urinary tract i.e. urethra, bladder and prostate then it is called as lower urinary tract infection (LUTI).<sup>[10]</sup> Urinary tract infection are second in frequency after upper respiratory tract infection.<sup>[11]</sup> Incidence and degree of morbidity and mortality from infections are greater with those in the urinary tract than with those of the upper respiratory tract. Bacteria are by far the most common invading organisms but fungi, yeasts and viruses also produce urinary tract infections. Thus, urinary tract infection is potentially a serious condition and failure to realize that this may lead to development of serious chronic pyelonephritis and chronic renal failure. Currently available antibiotics drugs and other conservative measures are in practice to combat the condition in suppressing the symptoms. Due to the limitations of antibiotics, drug resistance of microorganisms, side effects of the drug in metabolic systems, immune system make think for alternative modalities of management. Management of *Mutrakriccha* through *Ayurveda* medicines were selected and success was achieved in treating *Mutrakriccha* (Urinary tract infection).

#### Literary review

*Basti* and *Vankshana* have been considered as the *Moola* of *Mutravaha* Strotas and its *Dushti* leads to excessive urination, increased frequency, painful micturition etc.<sup>[12]</sup>

Aharaja Nidana	Viharaja Nidana	Partantra Nidana
Adhyashana	Yana Gamana	Kaphaja Arsha
Ajirna	Atiyyayama	Ajirna
Ruksha anna Sevana	Aghata	Vasti Vidradhi
Tikshna Aushadha Sevana		Gulma
Ruksha Madva Sevana		Udavarta

Acharya Kashyapa has described *Mutrakriccha* as Pitta Pradhana Tridoshaja Vyadhi<sup>[20]</sup>, while Acharya Hareeta as a Pitta Pradhana Vyadhi.<sup>[21]</sup> Hence Pitta Parkopa leads to *Mutrakriccha* Acharya Charaka has recommended Vata Sthananupurvi Chikitsa in the treatment of *Mutrakriccha*.<sup>[22]</sup> So the Nidanans can be classified according to the Doshas. Vata Parkopaka Nidana i.e. Vyayama, Vyavaya, Vegadharana, Ruksha Madhya, Shakrita, Abhighata, Vyadhikshamatva, Pitta Prakopaka Nidana i.e. Pitta Parkopaka Dravya (Krodha, Shoka, Sarshapa etc.), Katu, Amla, Lavana Rasa Ati Sevana, Anupa Matsya Mamsa, Madya, Ruksha Ahara, Tikshana Aushadha, Katiskandha Dharana and Kapha Prakopaka Nidana i.e. Anupa Mamsa, Adhayasana, Ajirna, *Mutrakriccha* is also occurred due to Nidanarthakara Roga i.e. Ajirna<sup>[23]</sup> and due to Abhighataja Nidana i.e.

*Chikitsa Sthana*, eight types of *Mutrakriccha* has been defined along with its aetiopathogenesis and treatment.<sup>[13]</sup> Here the term *Mutrakriccha* have been used instead of *Mutraghata*. Further in *Siddhistahn a*, thirteen types of *Bastiroga* have been described under the caption of *Mutradosha* and are different from the disease *Mutrakriccha*.<sup>[14]</sup>

In *Sushrut Samhita* in *Uttratantra*, ‘*Mutrakriccha* *Pratishedham Adhyayam*’ description of eight types of *Mutrakriccha* including their *Chikitsa* is available.<sup>[15]</sup>

Both the *Vagbhatts* have classified the diseases of *Mutravahasrotas* according to its *Pravritti* i.e. *Mutrakriccha* comes under *Mutra Apravrittijanya Vyadhi* while *Prameha* comes under *Mutra Atipravrittijanya Vyadhi*.<sup>[16]</sup>

In *Kashyap Samhita*, *Chikitsa Sthana* one chapter named “*Mutrakriccha Chikitsa*” is separately given. *Bhela Samhita*, *Sutrastahana* one chapter is devoted to *Mutrakriccha jChikitsa* that it is incomplete.<sup>[17]</sup>

*Madhava Nidana*: *Mutrakriccha*, *Mutraghata* and *Ashmari* have been dealt in separate chapters.<sup>[18]</sup>

#### ETIOLOGY

Etiological factors those are distress the *Mutravaha* Srotas also can be taken in to consideration as the *Nidana* of *Mutrakriccha*. Acharya Chakarpani has described in the context of *Jwara Nidana* chapter that all the diseases having two types of etiology *Samanya* and *Vishishta Nidana*.<sup>[19]</sup>

*Indriyapratighata*, *Rakta Pravritti* in *Mutrendriya* and *Uttana Ratibhanga*.<sup>[24]</sup> Uropathogenic *E. coli* is responsible for approximately 85% of urinary tract infection.<sup>[25]</sup> *Enterococcus*, *Klebsiella*, *Enterobacter* and *Proteus* species are less common cause.<sup>[26]</sup>

**CLASSIFICATION**

TYPES	Charak	Sushrut	Kashyap	Vagbhatta	Madhavnidana Bhavprakash	Sharangdhar
Vataja	+	+	+	+	+	+
Pittaja	+	+	+	+	+	+
Kaphja	+	+	+	+	+	+
Sannipataja	+	+	+	+	+	+
Dwandaja	-	-	+	-	-	-
Ashmarijanya	+	+	-	-	+	+
Shakarajanya	+	+	-	-	+	+
Purishaja	-	+	-	-	+	+
Shukrja	+	-	-	-	+	+

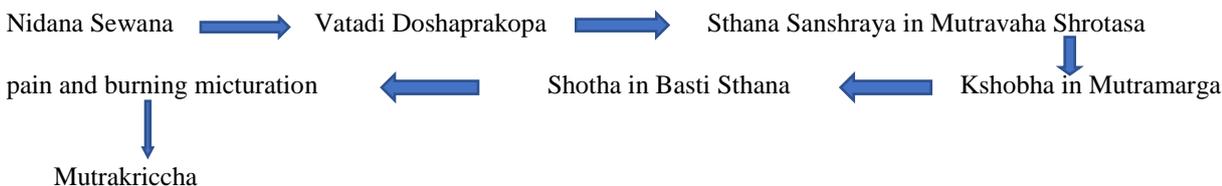
**SAMPRAPTI**

Ayurvedic concept of pathogenesis lies in accepting the involvement of Dosha and Dushya in the manifestation of the disease. Causative factors like Atimaituna, Nityadrutaprustayana Mutravegadharana and Ativyayama leads to alleviation of Vata Dosha specially Apana Vayu. Intake of Madya, Matsya and Katu, Amla, Lavana Rasa in excessive amount causes aggravation of Pitta Dosha i.e. Pachaka Pitta and intake of Anupamamsa, Adhyashana and Ajirna Bhojana aggravates Kapha Dosha which in turn leads to reduced state of Agni. Hence all the Tridoshas get vitiated.

Vitiated of Tridoshas along with the state of reduced digestion capacity (Agnimandhya) invariably produce

Ama, mixes with the Doshas forming Sama Doshas. These produces symptoms like Peeta mutra (yellowish urine), Sadaha Mutra Pravritti (burning micturition), Basti and Mutrendriya Gurutwa (inflammation of bladder), Shweta, Snigdha and Picchila Mutra (turbid urine with the presence of leucocytes).

It is an important factor to under stand the process of appearance of the diseases. In the prespective of Mutrakriccha, only Acharya Charaka has described the pathogenesis, when the Doshas have been vitiated by the specific etiological factors, then three Doshas either individually or jointly get aggravated in the Basti or afflict the urinary passage, then give rise to Mutrakriccha.<sup>[27]</sup>



**SAMPRAPTI GHATAKA**

Dosha	Vata Pradhana Tridhoshaja
Dushya	Rasa, Rakta, Mutra, Kleda
Agni	Jatharagnimandya, Dhatvagnimandya
Srotasa	Mutravaha
Srotodushti	Sanga
Udhhava sthana	Pakvashaya
Adhithana	Basti, Mutramarga
Roga Marga	Madhyama
Vyaktasthana	Mutravaha Srotas, Basti, Mehana
Prabhava	Krucchasadhya

**SYMPTOMS**

Many symptoms are mentioned in the classics for types of Mutrakriccha. The symptoms like Kricchrata (hesitancy), Muhurmuhur Mutra Pravritti (increased frequency of micturition) and Shula (dysuria) are present in almost all types of Mutrakriccha as explained in the classics. Hence these symptoms can be considered as important clinical features of Mutrakriccha. The most presenting features Shula and Muhurmuhur Mutrata are due to aggravation of Vata Dosha, Peeta Mutrata and Daha are due to aggravated Pitta Dosha and Picchila

Mutra (turbid urine), Shweta Mutra (presence of leukocytes in urine) are due to aggravated Kapha Dosha.

**Vataja**

Vankshanashula (pain in the inguinal region), Bastishula (pain in the lower abdomen), Medhrashula (pain in the penis), Muhurmuhur Mutra Pravartana (increased frequency of urination), Alpamutrata scanty urination.

**Pittaja**<sup>[28],[29]</sup>

In Pittaja Mutrakriccha Peet Mutrata (yellow color of urine), Sarakta Mutra (bloody urine), Saruja (pain), Sadaha (burning sensation), Muhurmutrata (increased frequency), Ushana Mutra (hotness of urine).

**Kaphaja**<sup>[30],[31]</sup>

Sotha and Guruta in Basti (suprapubic), Linga (urethra), Mushka (scortum), Mehana (urethra), Sapiccha Mutra (slimy urine), Bahul Mutrata (passing of large amount of urine), Anushna (not hot) in Kaphaja Mutrakriccha.

**Sannipataja**

Symptoms of Vataj, Pittaj and Kaphaj Mutrakriccha are observed in Sannipataj Mutrakriccha. Urine is of various colors and frequencies during micturition. It is the most difficult type of Mutrakriccha.

**Abhigataja**

Acharya Susruta mention Abhigataja Mutrakriccha Lakshana like that of Vataja Mutrakriccha. As Abhigata leads to Vata Dosha Prakopa.

**Ashmarija**

The patient suffers from pain in the urinary bladder, perineum, penis associated with splitting of urine while micturition. Due to agonizing pain, the patient squeezes the penis and frequently passes urine and stool. If the urinary passage gets injured by Ashmari leading to the elimination of urine mixed with blood. Means by Vitiated Vata, Ashmari is broken down into small particles Mutrapathat Saranti (small Ashmari particles will come out with urine in the form of gravels), Sobhath Chate (inflammation in the Mutra Marga due to trauma caused by Ashmari), Sukhammehati Cha Vyapayat (patient feel relieved when Ashmari passed out).

Aggravated Vata dries up the semen, urine, Pitta and Kapha located in the urinary bladder leading to development of Ashmari (stones) like gallstone in cow. It is classified into four varieties namely.

1. Vataja Ashmari appears like the flower of Kadamba and is of Triputi (having three layers)
2. Pittaja Ashmari appears like stone and which is smooth
3. Kaphaja and Sukraja Ashmari are soft.

Due to agonizing pain, patient squeezes penis and frequently passes urine and stool. Patient passes urine easily after eliminating Ashmari. Susruta says symptoms of Ashmari and Sarkaraare similar.

**Sarkaraja**

When Ashmari becomes disintegrated into small particles by Vata and these come out from urinary passage is known as Sarkara.

Ashmari undergoing processing by Pitta, broken into many pieces by Vata, separated into parts by Kapha and the same comes out of urine is known as Sarkara. It is

characterized by pain in the region of heart, shivering, abdominal pain, sluggishness of digestive fire, fainting and severe dysuria. Pain subsides after elimination of urine and appears again when the passage is blocked by stone gravel.

**Sukaraja**

Mutrakriccha Vedana Vankshana, Basti, Medhra (pain inguinal, bladder and pelvic region). Atishoolam Vrishana Ativriti (swelling and pain in scrotum area). Mutram Sakrichhm (difficulty in micturition due to obstruction caused by semen).

**Raktaja**

Due to Kshata (blow or stroke), Kshya (due to excessive indulgence in sex), its symptoms are blood stained urine and severe pain during micturition. There is an improved frequency of micturition in little amounts. Any types of trauma or instrumental injury causes Raktaja Mutrakriccha. In Sushrut Samhita, Raktaja Mutrakriccha has been mentioned by the name of Abhigataj Mutrakriccha.

**Purishaja**

Mutrakriccha results due to suppression of urge for defecation. It leads to Pratiloma Gati of Vata that is vitiation of Apana Vayu, further it causes Adhyamana (distension of abdomen). Shoola (pain) and Mutra Shanga (retention of urine).

**TREATMENT****Shamana Chikitsa**

It includes Mutra Vishodhaniya, Mutra Virechaniya, Mutra Virajaniya and Ashmarihara Dravyas.

**Shodhana Chikitsa**

It includes diuretics, antibiotics and Uttara Basti which dilutes and flushes various infective agents along with urine.

**Bahirparimarjana Chikitsa**

It includes medicine that can be used extremely in the form of douches, fomentation, showers, poultices and ointment etc.

**Specific Management****Vataja Mutrakriccha Chikitsa**

**Bahirparimarjana Chikitsa:** Abhyanga, Svedana, Upanaha, Vatashamaka Dravayas like Dashmool, Eranda, Nirgundi, Parisheka on Kati Pradesh with Vatashamak Taila and Kwath.<sup>[32]</sup>

**Antahparimarjana Chikitsa**

**Shodhana:** Niruha Basti, Uttara Basti with Vatashamak Kwath like Dashmoola Kwath.

**Shamana:** Amritadi Kwath, Sthiradi Aushadha, Shwadanshra Taila, Traivrit Taila, Mishraka Sneha

**Pittaja Mutrakriccha Chikitsa**

**Bahirparimarjana Chikitsa:** Sheeta Parisheka, Avagahanain cold water, Pralepana with Chandan and Karpur.<sup>[33]</sup>

**Antahparimarjana Chikitsa**

**Shodhana:** Virechana with Tikta Evam Madhur, Kashaya, Uttara Basti.

**Shamana:** Shatavaryadi Kwath, Haritakyadi Kwath, Trinapanchmula Kwath, Trinapanchmula Churna, Ervaru Beeja, Yastimadhu, Devdaru with Tanduldhavan.

**Kaphaja Mutrakriccha Chikitsa**

**Bahirparimarjana Chikitsa:** Svedana, Abhyanga with Taila containing Tikta Aushna Dravya.

**Antahparimarjana Chikitsa**

**Shodhana:** Vamana, Niruha Basti with Kshara, Trishna and Katu Dravya.

**Shamana:** Vyoshadi Churna, Praval Bhasma, Shwadanshradi Kwath, Trikantakadi Ghritabhaksh, Takra.

**Sannipattaja Mutrakriccha Chikitsa**

In Sannipataja Mutrakriccha the treatment should be done according to Vatasthana. The dosha which is more dominant is treated first.

**Antahparimarjana Chikitsa**

**Shodhana:** If Kapha is predominant then Vamana, if Pitta is predominant then Virechana and if Vata is predominant the Basti Karma should be performed.

**Shamana:** Pashanbhedadi Yoga, Brihatyadi Kwath, Gudamalaki Yoga, Gudadugdha Yoga, Dhatriyadi Yoga.

**Raktaj Mutrakriccha Chikitsa**

It should be managed as Sadyovarana.

**Shakritajanya Mutrakriccha Chikitsa**

Vataharakriyais done in Shakritajanya Mutrakriccha.

**Bahirparimarjana Chikitsa:** Abhyanga, Svedana, Avagahana.

**Antahparimarjana Chikitsa**

**Shodhana;** Basti

**Shamana:** Churnakriya

**Ashmari Mutrakriccha Chikitsa**

Same as Kapha and Vata Chikitsa.

**Raktaja Mutrakriccha Chikitsa**

Stem of Neel Kamal + Taal + Kaas + Ikshuvaal, Isshumul, Kasheru all are taken in the same quantity and Kwath is prepared with Sita or Madhu and given to drink. To lick Ikshu is given and to eat Vidarikanda Churna and Trapusha is given.

Some other important formulation include.

Varunadi Kwath

Gokshuradi Guggulu

Gokshuradi Kwath

Chandanasava

Chandraprabha Vati

Trivikrama Rasa

Chandrakala Rasa

**PATHYA AND APATHYA****PATHYA**

**AHARA:** Purana Shali, Yava, Kshara, Takra, Dugdha, Dadhi, Jangal Mamsa, Mudga Yusha, Trapusha, Nadeya Jala, Sharkara, Kushmanda, Patola Patra, Ardraka, Gokshura, Puga, Narikela, Laghu Ela, Karpura, Kumari, Supari, Kharjura, Taladruma, Talasthimajja, Trapusa, Pure River Water.

**Vihara:** Abhyanga, Swedana, Avagahana.

**APATHYA**

**AHARA:** Tambula, Matsaya, Madyapana, Lavana, Pinyaka, Hingu, Tila, Sarshapa, Masha, Karira, Bhrishta Padartha, Tikshna, Vidahi, Ruksha, Amla Dravya, Karirphala, Virudhashana, Vishamashana,

**VIHARA:** Yana Gamana, Vega Dharana, Ativyayama, Riding on elephant and horse.

**UDADRAVA**

Only Acharya Kashyapa has mentioned the Upadras of Mutrakriccha.<sup>[34]</sup>

Emaciation, uneasiness, anorexia, instability (of mind), thirst, pain, melancholy (nervousness) and discomfort are the complications of Mutrakriccha.

**CONCLUSION**

Muttrakriccha is the most common recurring problem in daily clinical practice. Mutrakriccha can occur as a result of Mutra Kshaya. The Ushna and Teekshna Gunas of Pitta increase and thereby produce burning micturition. The Guru and Picchila Guna of Kapha get vitiated, which in turn leads to a reduced state of Agni. As a result, all of the Tridoshas get vitiated. Ama is invariably produced by vitiated Tridoshas and the state of Agnimandhya (Manda Agni). Samadoshas are formed when Ama combines with the Doshas. These Samadosha lead up to Shotha, a bacterial infection that causes urinary tract inflammation. Aggravated Vata dosha increases Rukshata. So, urine volume decreases and thereby causing an increase in the urine concentration. This produces an environment favorable for bacterial growth. From the Vedic period the Indian physicians were aware of the presence of the microorganisms but there is no direct reference Krimi which are responsible for urinary tract infection. But in Harita Samhita among the type of Bahya Krimi, Mutrotppanna Vartula is mentioned. So, it can be considered as a micro organism for urinary tract infection indicating the Ayurvedic landmark of bacterial origin of Mutrakriccha. All the Nidana of Mutrakriccha ultimately results in the Tridosha Prokop and Mandagni. It also manifests as a Purvarupa, Rupa and Vyadhi. The symptoms of

Mutrakriccha resemble with lower urinary tract infection. Etiopathogenesis of this disease suggests that Pitta Dosha plays a major role. It is concluded that any abnormalities in Vyana Vayu, Samana Vayu, Pachaka Pitta, Ranjaka Pitta and Apana Vayu due to dietary, habitual, deficiency, injury and bacterial factors resulting in Mutrakriccha. The patient should maintain their proper hygiene to decrease the risk of dysuria the primary prevention (Nidanprivarjanam) strategy has been given priority, in both Ayurveda as well as in modern medicine. Based on the symptoms of Mutrakriccha we have got a lot of help in the treatment of Mutrakriccha.

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