

EFFECTIVENESS OF POLYHERBAL FORMULATION IN THE MANAGEMENT OF MUTRAKRUCCHA (UTI) - A CASE REPORT

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ABSTRACT

The term *Mutrakrichha* comes under the disease of *Mutravaha Srotas*. In *Charak samhita* Acharya Charaka has described eight types of *Mutrakrichha*. It has the main characteristic features like *shool* (pain), *kricchrata* (dysuria), *sadahamutrata* (burning micturation), *muhurmuhur mutra* (urgency and frequency), *peetamutrata* (yellow discolouration of urine), *saraktamutra* (hematuria). In *Mutrakrichha*, the vitiated *Pitta Dosha* with *Vata dosha* reaches *Basti* (bladder) and afflicts the *Mutravaha Srotas* due to which the patient feels difficulty in micturition along with other symptoms of *Mutrakruccha*. The manifestation of *Mutrakruccha* and Urinary Tract Infection are similar.

The present case report deals with the *Mutrakriccha* in 9 years of old male child who was treated with the *Ayurvedic* formulations of *Mutrakruccha* mentioned in our classical text. After the regular follow up of patient, there is marked reduction in symptoms was observed after 7 days of treatment.

KEYWORDS: *Mutrakrichha*, *Shool*, *Sadahamutrata*, *Peeta Mutrata*, Urinary Tract Infection.

INTRODUCTION

In *Ayurveda*, the concept of the urinary system is explained under the *mootravaha srotas* and it discharges the waste products, while efficiently conserving water and other valuable substances. However, this homeostasis is hampered during many disease conditions out of which *Mutrakrichha* is one of the disease. Many *Ayurvedic* formulations are mentioned in our classical text in such conditions for maintaining the normal functioning of the system. *Mutrakriccha* can be correlated with UTI as the manifestation of both is similar. A urinary tract infection is the infection of bladder or kidneys and is mainly caused by E. Coli and other

agents include *Proteus mirabilis*, *Enterobacteriaceae*, *Enterococcus* species, *Pseudomonas aeruginosa* and *Staphylococcus saprophyticus*.^[1] Predisposing factors for recurrent Urinary tract infection include microbial growth in the urogenital tract, urinary stasis, circumcision in male children, bioflora favouring pathogenic urobacteria, lactobacillus and probiotics products, vaccination, management of dysfunctional elimination syndrome, long term antibiotic prophylaxis, repeated catheterization poor hygienic conditions, obstructive uropathy, severe vesicoureteric reflux, constipation environment, poverty and illiteracy also contribute to the increasing percentage of urinary tract infections.^[2] Urinary tract infections occur in approximately 1.7% of boys and 7.8% of girls by the age of 7 years.^[3] When the bacterial count in midstream sample of urine is more than $\geq 10^4$ CFU/ml is considered as positive for UTI.^[4] The overall prevalence of UTI is approximately 7 percent in febrile infants and young children but varies by age, sex and circumcision status. In modern science, with the introduction of effective antibiotics problem has been solved to some extent but the use of antibiotics have its limitations like side effects, chances of reinfection, relapse even after the long term therapy and increasing incidence of resistance. Different *Ayurvedic* formulations were used in treatment of *Mutrakriccha* which are mentioned in our classical texts. All the drugs which are used in this case study have properties like *Doshashamak* (dosha pacifying), *Mutral* (diuretic), *Jantughna* (anti-microbial action), *Jwaraghna* (anti-pyretic) and *Dahanashaka* (anti-inflammatory) properties.

CASE HISTORY

A male patient Mrs. ABC of 9 years age visited the OPD of PMT'S, Shevgaon, Ahmednagar with the following chief complaints-

1. Frequent micturition
2. Difficulty in Passing urine (Dysuria)
3. Urgency of micturition
4. Fever
5. Nocturia

History of present illness

Patient was asymptomatic before 2 days but since then he had developed the above symptoms. Patient had a history of recurrent urinary tract infection. He had taken allopathic medicines for the same and also got relief for few days but after few days he again suffered

from same condition. Hence, he came to Pravara Medical Trust Hospital, Shevgaon, Ahmednagar, India for the management.

Past History

Same episode of illness had occurred one week ago.

Personal History

Appetite - Poor

Sleep - Disturbed

Bowel - Normal

Bladder - Burning and painful micturition, frequent urination

General examination

Temp. - 102⁰F

BP - 110/80 mmhg

Pulse – 74/min

Systemic examination

RS - AEBE, clear

CNS - Conscious, oriented

CVS – S₁S₂ normal

P/A - Soft, non-tender

Ashtavidha pariksha

Nadi - 74/min

Mala - Sama

Mutra - Alpa-saruja-sadaha mutrata, muhurmuahu mutrapravritti

Jivha - Sama

Druka - Prakrut

Sparsa - Ushna

Akriti - Madhyama

Treatment plan

Patient was treated on OPD level

Selected polyherbal formulation for internal use

Name of medicine	Dose	Route	Kala	Anupan
<i>Trunapanchamula Kwatha</i>	20 ml BD	Oral	<i>Adhobhakta</i>	-
<i>Chandraprabha vati</i>	1 tab BD	Oral	<i>Adhobhakta</i>	<i>Koshna jala</i>
<i>Sanshamani vati</i>	1 tab BD	Oral	<i>Adhobhakta</i>	<i>Koshna jala</i>

Duration - 7 days.

Criteria for selection of Internal Polyherbal formulation

Name of medicine	Ingredients	Properties and uses
<i>Trunapanchamula Kwatha</i> ^[5]	<i>Darbha, Kusha, Kasha, Shara, Ikshu</i>	<i>Mutral, Vata-pitta shamak, Sheetaveerya, Madhura rasa, Madhura vipaka</i>
<i>Chandraprabha vati</i> ^[6]	<i>Chandraprabha, Vacha, Musta, Bhunimba, Devdaru, Haridra, Ativisha, Daruharidra, Pippalimula, Chitraka, Dhanyaka, Triphala, Chavya, Vidanga, Gajapippali, Trikatu, Swarnamakshika bhasma, Ksharadwaya, Lavantraya, Trivrutta, Dantipatraka, Twak Ela, Vanshalochana, Lohabhasma, Sita, Shilajit, Guggulu</i>	<i>Mutrala, Rasayan, Raktaprasadak, Stambhaka, Pittashamaka, Sheetaveerya, Tridoshaghna, Deepan, Pachana, Sheetaveerya, Tiktara</i>
<i>Sanshamani vati</i> ^[7]	<i>Guduchi, Ativisha</i>	<i>Jwaraghna, Shothaghna, Pittashamaka, Jantughna, Pachaka, Deepak, Balya</i>

Pathya Apathya advised during treatment^[8]

Pathya	Apathya
<i>Ahara- Jeernashali, Mudgayusha, Tandulaja, Bhuikohala, Kharjura, Manuka, Narikel, Amalaki, Madhura Takra, Goghruta, Godughdha, Godadhi, Jangalamansa, Phalarasa, Nimbu panaka</i>	<i>Ahara- Vidahi-Amla ahar, Madya, Mastya, Lavan, Tambula, Hingu, Sarshapa, Tikshna, Abhishyandi ahar</i>
<i>Vihara- -</i>	<i>Vihara- Ativyayam, Atishrama, Mutravegadharana, Ashwadi yan pravas</i>

Assessment of treatment effect on the basis of grading pattern of subjective parameters^[9]

Subjective parameters	Grade 0	Grade 1	Grade 2	Grade 3
Dysuria	No	Yes, mild	Yes, moderate	Yes, severe
Increased frequency of micturition	No 4 or less times	Yes, mild 5-6 times/day	Yes, moderate 7-8 times/day	Yes, severe 9-10 or more times/day
Urgency of micturition	No	Yes, mild	Yes, moderate	Yes, severe
Nocturia	No	Yes, mild	Yes, moderate	Yes, severe

		3 times	4 times	More than 4
Hesitancy	No	Yes, mild	Yes, moderate	Yes, severe
Fever	No	Yes, mild	Yes, moderate	Yes, severe
Supra pubic discomfort	No	Yes, mild	Yes, moderate	Yes, severe

OBSERVATIONS AND RESULTS

Assessment of results as per Subjective parameters

Subjective parameters	Before treatment	After treatment
Dysuria	Grade 2	Grade 0
Increased frequency of micturition	Grade 2	Grade 0
Urgency of micturition	Grade 2	Grade 0
Nocturia	Grade 1	Grade 1
Hesitancy	Grade 0	Grade 0
Fever	Grade 0	Grade 0
Supra pubic discomfort	Grade 0	Grade 0

Assessment of results as per Objective parameters

Sr. No.	Urine Analysis	Before treatment	After treatment
1.	Colour of urine	Pale yellow	Clear
2.	pH	Acidic	Acidic
3.	Specific gravity	1.014	1.014
4.	Sugar	Nil	Nil
5.	Albumin	Nil	Nil
6.	RBC	Nil	Nil
7.	Pus cells	20-22/hpf	2-4/hpf
8.	Epithelial cells	8-10/hpf	3-4/hpf

DISCUSSION

As per the Ayurvedic literature, in *Mutrakruccha* due to *nidan sevan Tridosha prakopa* occurs. *Prakupita pitta* leads to *Agnidushti* which further causes formation of *Ama* and this *Ama* ends in *Amayukta dhatu* formation. *Dushita Rakta* Produces *Mala rupa pitta* in excess. *Dushita mutra* reaches *Basti* and leads to *Krucchamutrata*, *Pitamutrata*, *Sadaha mutrapravrutti*. So, to break this *Samprapti*, *Mutral*, *Vatahara*, *Pittahara*, *Bastishodhan dravyas* are essential. The *Trunapanchamula kwatha* is of *Madhura Rasa*, *Madhura Vipaka* and *Sheetaveerya*^[10,11] by which act by increasing *Kleda* in our body and increases urine formation. Also its *Vata-pittashamaka* property helps in improving urinary function. *Chandraprabha vati* posses *Mutrala*, *Rasayan*, *Raktaprasadak*, *Stambhaka*, *Pittashamaka*, *Sheetaveerya*, *Tridoshaghna*, *Deepan*, *Pachana*, *Sheetaveerya*, *Tiktarasa* properties. So, it acts by correcting *agni* and thus helps in *Samprapti bhedan*.^[12,13] *Samshamani vati* acts on microcirculation and posses *Jwaraghna*, *Shothaghna*, *Pittashamaka*, *Jantughna*, *Pachaka*, *Deepak*, *Balya*.^[14] Thus useful in *Mutrakruccha*.

CONCLUSION

From the above, it is concluded that internal use of this polyherbal formulation along with properly following the *pathya-apathya* are effective in the management of *Mutrakriccha*.

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