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Research Article

TO STUDY THE EFFECTS OF AYURVEDIC TREATMENT IN CASES OF MOOTRAGHATA AND CHRONIC RENAL FAILURE

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ABSTRACT

Chronic Kidney disease (CKD) encompasses a spectrum of different pathophysiologic processes associated with abnormal kidney function and progressive decline in glomerular filtration rate (GFR). That result in renal failure, which is one of those deadly diseases. A patient of renal failure has no alternative other than dialysis and kidney transplantation to be alive. *Mootraghata* is characterized by the *shoshan* and *hani* of *mutra* which indicate a state of suppression of urine besides *Mootravibandhatva* or retention of urine. Ayurveda has definite answer to these patients as an intervention and management. So we decided to study one Mootraghata / CRF.

Keywords: *Mootraghata*, CRF, Uremia, Herbal Medicine, *Kleda*, *Ayurveda*.

INTRODUCTION

Today is the modernized ago of medical field which has resulted in development of sophisticated and specialized investigations, techniques. It helps in diagnosis of complicated diseases. Renal failure is one of those deadly diseases. A patient of renal failure has no alternative other than dialysis and kidney transplantation to be alive.

Whether the science of Ayurveda has any answer to these patients? Answer could be yes. So we decided to study one *Mootraghata* / CRF. *Mutravaha srotasa* is related with *Moothaghata* i.e. decreased production of *mootra* (Urine) opinion about *Mootravaha srotasa* differs by *charaka* & *sushruta* considerably. *Charaka* has used this term in pleural and mentioned *basti* and two *vankshanas* as their *mulam*. *Sushruta* has, on the other hand, described them as a pair and *basti* and *medhra* have been mentioned as *mulam*. *Vagbhata* has closely followed *charaka* in this regard. *Mootraghata* consists of group of syndromes characterized by *mootravibandhatva* by either retention of urine or suppression of urine caused by a variety of extent and internal factors. In *Mootrakrichha*, difficulty in micturition is more predominant *chakarapani* further clarifies that *Mootraghata* is characterised by the *shoshan* and *hani* of *mutra* which indicate

a state of suppression of urine besides *Mootravibandhatva* or retention of urine¹.

If one thinks about clinical entity of 13 types of *Mootraghata* in the light of modern clinical literature, one would find that *mootraghata* consists of the syndrome associated with retention & suppression of urine out of 13 conditions of *Mootraghata* by taking *mutrasada* and *Mutrakshaya* in consideration, it can be said that symptomatology of these two conditions and that of renal failure are nearly similar.

"Chronic Kidney disease (CKD) encompasses a spectrum of different pathophysiologic processes associated with abnormal kidney function and progressive decline in glomerular filtration rate (GFR). The term chronic renal failure (CRF) applies to the process of continuing significant irreversible reduction in nephron number and typically corresponds to CKD stages 3-5 i.e. GFR 30-59, 15-29 & < 15 ml/min per 1.73 m²". Risk factors include hypertension, diabetes mellitus, autoimmune disease, older age, african ancestry, a family history of Renal disease, a previous episode of acute Kidney injury, and the presence of proteinuria, abnormal urinary sediment, or structural abnormalities of the urinary tract².

Following are the main causes of chronic Kidney disease, cumulatively accounting for greater than 90% of the CKD disease burden worldwide.

- Diabetic glomerular disease
- glomerulonephritis.
- Hypertensive nephropathy
 - Primary glomerulopathy with hypertension.
 - Vascular and ischemic renal disease
- Autosomal dominant polycystic kidney disease
- Other cystic and tubulo-interstitial nephropathy³

Uremia leads to disturbances in the function of virtually every organ system. Chronic dialysis can reduce the incidences and severity of many of these disturbances; however, even optimal dialysis therapy is not completely effective as renal replacement therapy. Some of these disturbances are impaired growth & development, PEM, infertility & sexual dysfunction, Amenorrhea, fatigue, sleep disorders, Headache, impaired mentation, lethargy, asterixis, muscular irritability, peripheral neuropathy, myoclonus, seizures, muscle cramps, myopathy, coma, hypertension, CCF, Pulmonary edema, Pericarditis, uremic lung, vascular calcification, Pallor, hyperpigmentation, pruritus, Echinomoses, fibrosing dermatopathy, uremic frost, Anorexia, Nausea & Vomiting, gastroenteritis, peptic ulcer GI bleeding, idiopathic ascites, peritonitis, Anemia, lymphocytopenia, bleeding diathesis, leukopenia, thrombocytopenia, fluid & electrolyte disturbances, endocrine - Metabolic disturbances etc⁴.

OBJECTIVE

To evaluate the efficacy of Ayurvedic formulation in RENAL - FAILURE

MATERIALS AND METHODS

- 1) *Chandraprabha vati*, Pills of 500 mg each
- 2) *Gokshuradi guggul*, Pills of about 500 mg each
- 3) *Shudha - Kuchala Churna*.
- 4) *Punarnavadi asthadravaya prayoga*

For the present trial we selected *chandraprabhavati* described by *Bhaishajya Ratnavali* in the context of *prameha chikitsa* & *Gokshuradi Guggula* described in *sharangdhara samhita* in the context of *Gutika* preparations.

COMPOSITION OF GOKSHURADI GUGGULA⁵

DECOCTION –

Gokshur, Plus water, Boiled & reduced to half plus *shuddha Guggula*, Boiled again & concentrate plus powers of *shunthi*, *Maricha*, *pippali*, *Haritaki*, *Bibhitaka*, *Amalaka*, *mustaka* made into pills of about,

COMPOSITION OF CHANDRAPRABHAVATI⁶

Karpura, *Vacha*, *Mustak*, *Bhunimba*, *Deodaru* *Haridra*, *Ativisha*, *Daruharidra*, *pippalimula*, *Chitraka*, *Trivrutta*, *Dantimula*, *Tejapatra*, *Twak*, *Ela*. *Vanshlochana*, *Dhanya ka*, *Haritaki*, *Bibhitaka*, *Amaliki*, *chavya*, *Vidanga*, *Gajapippali*, *Suvarna Makshika*, *sunth maricha pippali*, *sarjikshra*, *yavakshara*, *saindhava souchala*, *vidlavana*, *Louha Bhasma*, *Sharkara*, *shuddha shilajit*, *shuddha Guggula*,

All powdered & mixed together & made into pills of 500 mg. with the help of *Triphala kwath*.

COMPOSITION OF PUNARNAVADI ASTHADRAVYA KWATHA⁷

- 1) Punarnava

- 2) Gokshur
- 3) Chandan
- 4) Sariwa
- 5) Pahadmula
- 6) Agadha
- 7) Jeera
- 8) Gulvel

Plus water, Boiled & reduced to 1/8th

* **SHUDHA - KUCHALA CHURNA⁸**.

CRITERIA FOR SELECTION OF PATIENTS:-

(A) INCLUSIVE CRITERIA:-

- 1) *Alpalpa mutra pravritth* (oliguria)
- 2) *Atisrustamut rapravritth* (polyuria)
- 3) *Mutrakshya* (Anuria)
- 4) *Sarvadehik - shoph* (oedema)
- 5) *Daurbalya* (Generalized weakness)
- 6) Ultra-sonography finding (urinary tract system)
- 7) Raised Serum - blood urea i.e. above 50 mg/dl
- 8) Raised serum creatinine i.e. above 1.5 mg/dl

(B) CRITERIA FOR DIALYSIS (Hemodialysis)

- 1) Nausea
- 2) Vomiting
- 3) Diarrhea
- 4) Breathlessness
- 5) Tremors
- 6) Generalized weakness
- 7) Raised serum blood urea i.e. above 140 to 150 mg/dl.
- 8) Raised serum creatinine i.e. 3.5 to 4.5 mg/dl.

(C) EXCLUSIVE CRITERIA:

Patients who were omitted from study group were-

- 1) Extremely weak & old patient (i.e. Age above 80)
- 2) Infants & small children who are below age 15 years.
- 3) Pregnant women
- 4) Diabetic patients.

(D) GROUPING OF PATIENTS:-

Patients were divided into 2 groups 1st group who did not require dialysis therapy & were subjected only for drug treatment. 2nd group were under treatment of dialysis therapy along with drug therapy.

22 patients were selected under the programme on the basis of gross observation.

CLINICAL ASSESSMENT:-

The cases registered under the programme on the basis of gross observation, were subjected to detailed clinical examination, history taking according to proforma prepared for the purpose.

Each case was subjected to detailed history taking & the study of the natural history of disease as regard to the incidence, long standing history & severity of the presenting symptoms.

- 1) *Alpalpa mutrapravritthi* (Oliguria)
- 2) *Atistustamutra pravritthi* (Polyuria)
- 3) *Mutrakshaya* (Anuria)
- 4) *Sarvadehik - Shoph* (edema)
- 5) *Daurbalya* (Generalized weakness)
- 6) Pain in Abdomen

All these symptoms were recorded & graded for their severity in a four grade rating scale as mentioned in the table.

LABORATORY INVESTIGATIONS

The patients registered under the present project, where subjected to the following schedule of laboratory investigation.

- 1) Routine & microscopic exam of urine
- 2) Hb% & ESR
- 3) Blood urea & serum creatinine
- 4) Ultrasonography - U.S.G. Radiological examination was found enough for diagnostic evaluation of these patients.

THE DOSE AND ADMINISTRATION SCHEDULE

In case of *Gokshuradi Guggula* & *Chandra prabhavati*, these drugs were administered in the dose of 2 pills two times a day, each pill weighing 500 mg. while *punarnavadi asthadravaya kwath* were administered in the dose of 20 ml four times a day; *shuddha kuchala churna* in the dose of 5 mg two times a day with *Anupan jala* respectively. The treatment was continued for 3 months.

PARAMETERS OF ASSESSMENT

The efficacy of the drug under trial was assessed on following parameters

- 1) Rating of symptoms
- 2) Rating of urinary finding
- 3) Biochemical finding

Physical well being including physiological changes.

- 1) Body weight
- 2) Pulse
- 3) Respiration
- 4) Blood pressure

The observation made before starting the treatment & after every fifteen days & significance of difference in the degree of these features before & after different phases of follow up during therapy.

Rating scale for symptoms and Urinary finding

- 1) **Mutrakshaya**
Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3
- 2) **Atisrusta mutrapravriith**
Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3
- 3) **Alpa Ipamutra pravritti**
Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3

4) **Sadaha mutrapravriithi**

Absent - 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3

5) **Kshudha mandya**

Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3

6) **Hrullas**

Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3

7) **Shopha (Sarvadehik)**

Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3

8) **Ayasenshwas**

Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3

9) **Daurbalya**

Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3

10) **Tandra**

Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3

11) **Kampa**

Absent = 0
Mild/occasional = 1
Moderate = 2
Severe constant = 3

RESULTS

With the help of rating scale result of this therapeutic study were considered as follows.

- 1) Good Relief - 3 to 0
- 2) Moderate Relief = 3 to 1 OR 2 to 0
- 3) Mild Relief = 3 to 2, 2 to 1, or 1 to 0
- 4) Uncured = No change

The detail clinical observations are given in various tables & bar diagrams.

TABLE: ACCORDING TO AGE GROUP

	20-40	41-60	ABOVE 60
MALE	2	1	5
FEMALE	2	2	0

AGE GROUP: (Dialysis)

	20-40	41-60	ABOVE 60
MALE	3	3	1
FEMALE	2	1	0

TABLE ACCORDING TO PRAKRITI

Prakriti : Doshapradhanya (Drug)

	VATA	PITTA	KAPHA
MALE	2	4	2
FEMALE	2	0	2

Prakriti : Doshapradhanya (Dialysis)

	VATA	PITTA	KAPHA
MALE	3	4	0
FEMALE	2	0	1

DRUG GROUP

Sr. No.	LAKSHAN	UPASHAYA		ANUPASHAYA	
		No. of Patients	Percentage %	No of Patient	Percentage
1	<i>Mutrakshaya</i>	0	0	0	0
2	<i>AtiSrishta Mutra Pravrittii</i>	3	75	1	25
3.	<i>Alpalpa Mutra Pravrittii</i>	3	37.5	5	62.5
4.	<i>Sadaha Mutra Pravrittii</i>	2	100	0	0
5.	<i>Kshudhamandya</i>	6	50	6	50
6.	<i>Hrillas</i>	1	14.22	6	85.72
7.	<i>Shopha</i>	5	41.66	7	58.33
8.	<i>Aayasen Shwasa</i>	7	58.33	5	41.66
9.	<i>Daurbalaya</i>	2	16.66	10	83.33
10.	<i>Tandra</i>	0	0	1	100
11.	<i>Kampa</i>	1	50	1	50

Dialysis Group

Sr. No.	LAKSHAN	UPASHAYA		ANUPASHAYA	
		No of Patients	Percentage %	No of Patients	Percentage %
1	<i>Mutrakshaya</i>	1	25	3	75
2	<i>AtiMutra Pravrittii</i>	0	0	0	0
3	<i>Alpalpa Mutra Pravrittii</i>	3	50	3	50
4	<i>Sadaha Mutra Pravrittii</i>	1	100	0	0
5	<i>Kshudhamandya</i>	8	80	2	20
6	<i>Hrillas</i>	4	57.14	3	42.85
7	<i>Shopha</i>	1	10	9	90
8	<i>Aayasen Shwasa</i>	6	60	4	40
9	<i>Daurbalya</i>	5	50	5	50
10	<i>Tandra</i>	8	80	2	20
11	<i>Kampa</i>	1	14.28	6	85.71

DISCUSSION

Total 22 patients were studied. Two groups were done for the study. In first group that is study group 12 patients were diagnosed as *Mootraghata* and treated with decided line of treatment whereas in second group i.e. dialysis group 10 patients were taken who were already diagnosed as Chronic Renal Failure and taking timely dialysis treatment. This group was also treated by the same line of treatment to compare the results. All the patients belonging to both groups were given restricted food and water during the trial period.

Out of 22 patients 9 patients (40.5%) were belonging to 20 to 40 age group, 7 patients (31.8%) were belonging to 41 to 60 age group while 6 patients (27.2%) belonging to above 60 age group. Out of 22 patients 15 patients (68.1%) were male patients while 7 patients (31.8%) were female.

Prakriti wise description shows that there were 9 patients (40.5%) of *Vatpradhan prakriti*, 8 patients (36.6%) of *Pittapradhan prakriti* and 5 patients (22.7%) of *Kaphapradhan prakriti*.

After treatment it is observed that symptoms as well as blood urea, serum creatinine levels were reduced in study groups

while in dialysis (Hemodialysis) group only symptoms were reduced. There was not marked reduction in blood urea and serum creatinine values. Out of 10 patients of dialysis group, in 3 patients, the time interval between two dialysis was found prolonged unto 10 days. In others it was prolonged unto 3 to 5 days.

The blood pressure of most of the patients was found raised but the record taken after the treatment does not show any significant decrease in blood pressure. Some patients reported remarkable increase in appetite and feeling of well being.

All drugs described earlier were found to be effective by acting as "*Prakrutisthapak*" drugs.

Generally the recovery from a disease is considered in terms of clinical cure and very little is known about the actual fate of the organ (Kidney) involved at tissue level.

In every case under study, a relevant past history or duration of the present complaints was not less than of six months indicating chronicity of the present illness.

CONCLUSION

This line of treatment has shown encouraging results, may be proved as a mile stone for the treatment of this crucial, challenging and fatal disease. This study requires further evaluations and assessments, in a planned way that will require proper amount of time and patients. But there is no doubt to say that this approach has got its own place as an original contribution to the subject.

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