



Research Article

**A SINGLE ARM CLINICAL TRIAL TO ASSESS THE COMBINED EFFECTIVENESS OF ANUBHUTA KASHAYA AND KAISHORA GUGGULU IN THE MANAGEMENT OF CHRONIC KIDNEY DISEASE (CKD)**

Rajshekar N. Shettar<sup>1\*</sup>, Prashanth A.S<sup>2</sup>

\*1PG Scholar, <sup>2</sup>Professor and HOD, Dept. of Kayachikitsa, Ayurveda Mahavidyalaya, Hubballi, India.

**Article info**

**Article History:**

Received: 20-08-2021

Revised : 01-09-2021

Accepted: 19-09-2021

Published: 16-10-2021

**KEYWORDS:**

Chronic Kidney Disease, *Vrukka roga*, *Kaishora guggulu*, *Anubhuta Kashaya*.

**ABSTRACT**

CKD encompasses a spectrum of pathophysiologic processes associated with abnormal kidney function and a progressive decline in the glomerular filtration rate (GFR). Elimination of *Malas* from the body is also an inductive of good health. There are totally three *Malas* explained by the *Samhitas* namely *Purisha*, *Mutra* & *Sweda*. In Chronic Kidney Disease (CKD) where there is a less formation of *Mutra*, the *Karma* of *Mutra* is removing *Kleda* (waste products) from the body. So, the *Kleda* which resides in the body causes *Pratiloma gati* of *Vata* leading to different variety of diseases which involves *Dusti* of *Rakta*. Therefore, use of *Mutrala* & *Raktashodhaka Dravyas* may be helpful in the subjects of CKD. There is no availability of direct description of CKD in Ayurvedic science, except *Vrukka roga Adhikara* of *Bhaishajya Ratnavali*. So, we studied the disease with Ayurvedic concepts on the basis of general signs and symptoms.

Here 28 subjects diagnosed with Chronic Kidney Disease (CKD) fulfilling the inclusion criteria were selected incidentally for study. For each subject of CKD *Amapachana* and *Koshtashodhana* was done with *Hareetakyadi churna*, *Anubhuta Kashaya* and *Kaishora Guggulu* are administered as *Shamanoushadhi*. With this intervention, we are able to give mild to moderate improvement in subjective and objective parameters. During the study improvement of subjective parameters are well appreciated than the objective parameters. The objective of the study is to establish the combined effectiveness of *Anubhuta Kashaya* and *Kaishora guggulu* in the management of Chronic Kidney Disease.

**INTRODUCTION**

CKD is a condition seen with hampering of normal kidney functions along with the irreversible damage to the kidney. In the conventional medicine, hemodialysis is most common form of the treatment. Renal replacement is another option which may offer endurance of some years in patients with ESRD. Though both these treatments are effective, they are not affordable and approachable, hence not acceptable by Indian population.

Etiology of CKD in India is diabetic nephropathy (31.2%), undetermined (16.4%), chronic glomerulonephritis (13.8%), hypertension (12.8%), tubulointestinal disease (7%), obstructive uropathy (3.4%), autosomal dominant polycystic kidney disease (2.5%), renovascular diseases (0.8%), kidney transplant graft loss (0.3%), others (11.7%). Mostly diabetes mellitus and hypertension together account for most of the patients being treated for ESRD. Clinical manifestation of CKD includes fluid, electrolyte and acid base disorders, distributed potassium homeostasis, metabolic acidosis, disorders of calcium and phosphate metabolism, cardiovascular abnormality include ischemic heart diseases, heart failure, hypertension, left ventricular failure & pericardial diseases. Hematological abnormalities include anemia, neuromuscular abnormalities, GIT & nutritional abnormalities, endocrine and metabolic disturbances etc. [1]

**Access this article online**

Quick Response Code



<https://doi.org/10.47070/ijapr.v9i9.2013>

Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

## Stages of Chronic Kidney Disease<sup>[2]</sup>

**CKD stage 0:** GFR is above 90ml/min per 1.73m<sup>2</sup>, with risk factors for CKD.

**CKD stage 1:** GFR is above or equal to 90ml/min per 1.73m<sup>2</sup>. With demonstrated kidney damage (e.g. Persistent proteinuria, abnormal urine sedimentation, abnormal blood & urine chemistry, abnormal imaging study)

**CKD stage 2:** GFR is 60-89ml/min per 1.73m<sup>2</sup>.

**CKD stage 3:** GFR is 30-59ml/min per 1.73m<sup>2</sup>.

**CKD stage 4:** GFR is 15-29ml/min per 1.73m<sup>2</sup>.

**CKD stage 5:** GFR is less than 15ml/min per 1.73m<sup>2</sup>.

According to *Ashtanga Hridayakara*, there are 2 types of pathology for *Mutra Rogas* i.e., *Mutra Apravruttijannya* and *Mutra Atipravrutijannya Vikaras*<sup>[3]</sup>. By seeing all the symptoms of CKD, we can incorporate it into *Mutra Apravruttijannya Vikara*. 8 types of *Mutrakrichra*, 13 types of *Mutraghata*, 4 types of *Ashmari* are also included under the same. In both *Mutrakrichra* & *Mutraghata*, *Krichrata* & *Mutra-Vibandhata* are simultaneously present. But 20 types of *Prameha* are included under *Mutra Atipravrutijannya Vikara* due to its *Prattyatma Lakshana* "Prabhuta Avila Mutrata". In Ayurveda, CKD can be included under *Mutravaha Srotus*. All the *Tridoshas*, *Saptadhatus* and *Mutra* are involved in the disease. In *Srotus*, morbid changes due to accumulation of *Doshas* in them leading to the blockage, which can be responsible for the reduced kidney functions like filtration, re-absorption and secretion depending on the involvement of Glomerular apparatus and renal tubules. By the analysis of the clinical picture of CKD involvement of the *Dushyas* can be understood. In CKD, *Dushti* of *Rasavaha Srotus* can be understood as fluid and electrolyte imbalance. Cardio-vascular complications, reduced immunity, anemia and other serological impairments are caused by *Rakta Dushti*. Mayopathy torches on *Mamsa Dushti*, dislipidaemia due to *Medas dushti* and Osteodystrophy due to involvement of *Asti Dushti*. Neuropathy will make us to keep a note on *Majja Dushti*. Sexual dysfunction indicates the *Dushti* of *Shukra*. Overall *Mutra* and *Rakta* are the most commonly affected *Dushyas* in the CKD. *Mutravaha Srotodushti* is indicated by oliguria, decreased GFR and proteinuria. *Raktavaha Srotodushti* is indicated by increased serum creatinine, blood urea, serum uric acid. Decreased GFR and oliguria are suggestive of vitiation of *Vata* and increased levels of serum creatinine which is a waste product of body indicates *Malasanchaya Ama*.

## OBJECTIVES OF STUDY

- To study the combined effectiveness of *Anubhuta Kashaya* and *Kaishora Guggulu* in the Management of Chronic Kidney Disease.
- To study CKD as per modern literature and to

understand the condition in the light of Ayurvedic principles.

## MATERIALS AND METHODS

**Study Design:** Open Labeled Single Arm Clinical Study

**Study Duration:** The total duration of study was 60 Days.

**Study Population:** Minimum of 30 subjects fulfilling inclusion and exclusion criteria were incidentally selected. There were 2 dropouts due to lack of understanding and engagement in the trail.

### ➤ Plan of Work

The entire study was designed to be conducted in three phases

- Phase 1
  - ✓ Detailed literature review, done extensively using primary, secondary and tertiary resources.
  - ✓ Documentation: Designing of data entry form, Informed consent, patient information sheet.
  - ✓ Ethical Committee approval: Ethical Clearance was obtained from the Institutional Ethical Committee of Ayurveda Mahavidyalaya Hubli.
- Phase 2
  - ✓ Data was collected using data entry form after explaining patient information sheet and signing informed consent document.
  - ✓ The sample size was collected which comes under the inclusion and exclusion criteria at the time of enrolment.
- Phase 3
  - ✓ Repots were analyzed using various statistical tools.
  - ✓ Reporting of results and presentation.

## Inclusion Criteria

- Subjects with classical symptoms of Chronic Kidney Disease having the clinical features like oedema, pruritis, generalized weakness, nausea etc.
- GFR. (30-100ml/min per 1.73m<sup>2</sup>)
- Albuminuria
- Serum creatinine. (0.5-6mg/dl)
- Blood urea. (10-60mg/dl)
- Mild Hypertension
- Subjects of both the genders
- Subjects belonging to age group between 20- 60 years of age.

## Exclusion Criteria

- Subjects who don't fulfill the inclusion criteria were excluded from the study.
- CKD subjects of stage-4 and stage-5 are excluded.
- Subjects who were on dialysis therapy.
- Subjects suffering from Hepatitis/HIV/VDRL were excluded.

- Uncontrolled DM.
- Hypertension above 180/110mm of Hg.
- Pregnant and Lactating women.

#### Source of Data

#### Clinical Source

- A clinical survey of subjects attending O.P.D & I.P.D, OF Post Graduate Department of Kayachikitsa, Ayurveda Mahavidyalaya and Hospital, Hubballi was made and subjects fulfilling the criteria of diagnosis and inclusion criteria of Chronic Kidney Disease, as per proforma was selected for the study.
- Patients were registered and recorded as per the specially designed clinical proforma.
- The parameters of signs and symptoms were scored as per the proforma, and applied suitable statistical methods.

#### Literary Source

Review of literature was done from textbooks textbook available in Post Graduate Library, Department of Kayachikitsa, Ayurveda Mahavidyalaya Hubballi, from Authentic Research Journals, Websites and Digital Publications etc.

#### Assessment Criteria

Improvement in subjective and objective parameters of Chronic Kidney Disease (CKD) will be assessed before and after the treatment.

#### Subjective Criteria

A	Subjective Parameters
1.	Oedema
2.	Pruritis
3.	Nausea
4.	Generalized weakness
5.	Pallor

#### Objective Criteria

B	Objective Parameters
1.	Serum creatinine
2.	Hb%
3.	Urine for Albumin
4.	Blood urea
5.	GFR
6.	Blood Pressure

**Table 1: Showing the Gradings of Oedema**

Grades	Depth	Rebound Time
Grade 1	2 mm depression or barely visible (Mild)	Immediate
Grade 2	3-4 mm depression or a slight Indentation (Moderate)	15 seconds or less
Grade 3	5-6 mm depression (Great)	10-30 seconds
Grade 4	8 mm depression or a very deep indentation (Sever)	More than 30 seconds

**Table 2: Showing the Gradings of Pruritis**

Grades	Severity
Grade 0	No Itching
Grade 1	Mild (No disturbance while doing work)
Grade 2	Moderate (Disturbs the work)
Grade 3	Severe (Disturbs the sleep)

**Table 3: Showing the Gradings of Nausea**

Grades	Measure	Definitions
Grade 0	None	No Nausea
Grade 1	Anticipated	Nausea is anticipated and prophylaxis medications may be given.
Grade 2	Mild	Nausea reported. Able to tolerate food or Medications by mouth.
Grade 3	Moderate	Nausea persisting lacks appetite. Able to eat small meals occasionally.
Grade 4	Great	Nausea ongoing, no appetite. Unable to tolerate food/medications by mouth.
Grade 5	Severe	Nausea with dry heaves reported.

**Table 4: Showing the Gradings of Generalized Weakness**

Grades	Definitions
Grade 0	Absence of weakness
Grade 1	Mild (Weakness after heavy work)
Grade 2	Moderate (Weakness after routine work)
Grade 3	Sever (Always tired)

**Table 5: Showing the Gradings of Pallor**

Grades	Definitions	
	Male	Female
Grade 0	No Pallor (>Hb%13g/dl)	No Pallor (>Hb%12g/dl)
Grade 1	Mild Pallor (Hb%9-13g/dl)	Mild Pallor (Hb%8-12g/dl)
Grade 2	Moderate Pallor (Hb%7-9g/dl)	Moderate Pallor (Hb%6-8g/dl)
Grade 3	Sever Pallor (Hb%< 7g/dl)	Sever Pallor (Hb%< 6g/dl)

**Table 6: Showing the Gradings of Serum Creatinine**

Serum Creatinine			
	Male	Female	Grading
Normal	0.9-1.3mg/dl	0.6-1.1 mg/dl	0
Mild	1.3-2.0 mg/dl	1.2-1.8 mg/dl	1
Moderate	2.1-3.0 mg/dl	1.9-2.8 mg/dl	2
Sever	3.1-6.0 mg/dl	2.9-6.0 mg/dl	3

**Table 7: Showing the Gradings of Hb%**

Hb%			
	Male	Female	Grading
Normal	(>Hb%13g/dl)	(>Hb%12g/dl)	Grade 0
Mild	(Hb%9-13g/dl)	(Hb%8-12g/dl)	Grade 1
Moderate	(Hb%7-9g/dl)	(Hb%6-8g/dl)	Grade 2
Sever	(Hb%< 7g/dl)	(Hb%< 6g/dl)	Grade 3

**Table 8: Showing the Gradings of Urine albumin**

Urine Albumin		
	Definition	Grading
Normal	Nil	0
Mild	(+) 100mg/dl	1
Moderate	(++) 200mg/dl	2
Sever	(+++) 300mg/dl	3

**Table 9: Showing the Gradings of Serum Urea**

Serum Urea		
	Definition	Grading
Normal	15-30mg/dl	0
Mild	31-40mg/dl	1
Moderate	41-50mg/dl	2
Sever	51-60mg/dl	3

**Table 10: Showing the Gradings of GFR**

GFR		
	Definition	Grading
Normal	>90 ml/min/1.73m <sup>2</sup>	0
Mild	70-89 ml/min/1.73m <sup>2</sup>	1
Moderate	50-69 ml/min/1.73m <sup>2</sup>	2

Great	30-49 ml/min/1.73m <sup>2</sup>	3
Sever	20-29 ml/min/1.73m <sup>2</sup>	4

**Table 11: Showing the Gradings of Blood Pressure**

Blood Pressure		
	Definition	Grading
Normal	120-139/80-89 mmHg	0
Mild	140-159/90-99 mmHg	1
Moderate	160-179/100-109 mmHg	2
Severe	>=180/>=110 mmHg	3

**INTERVENTION**

<i>Ama Pachana &amp; Koshtashuddi</i>	<b>Hareetakyadi churna<sup>[4]</sup></b> Dose: 5gms of Churna with warm water before food, twice daily. (Till niramalaxana)
<i>Shamana Yoga</i>	<b>Anubhuta Kashaya (Anubhuta)</b> Punarnava-1 Part Kusha-1part Gokshura-1 Part Kasha-1part Coarse powder of all the Guduchi-1 Part Nala-1part ingredients are made for Bhumyاملaki-1 Part Darba-1part preparation. Varuna-1 Part Ikshu-1part Yashtimadhu-1 Part Pashanabheda-1part Vidariगanda-1 Part Kokilaksha-1part Nagakeshara-1 Part Sariva-1part Manjishta-1 Part Parpata-1part Dose: Internally 30ml of Kashaya thrice a day before food. <b>Kaishora guggulu<sup>[5]</sup></b> Dose: 1 Tab 500mg thrice a day before food.

Kwatha

**OBSERVATION AND RESULTS****Table 12: Showing Observation on Subjective Parameters**

Subjective Criteria	No. of Subjects	Percentage
Oedema	28	100%
Pruritis	20	71.4%
Nausea	14	50%
G. Weakness	27	96.4%
Pallor	28	100%

**Table 13: Showing Observation on Objective Parameters**

Objective criteria	No. of subjects			Percentage
	Mild	Moderate	Sever	
Serum creatinine	8	20	0	100%
Hb%	3	25	0	100%
Urine albumin	5	16	7	100%
Serum urea	0	3	25	100%
Gfr	0	0	28	100%
Blood pressure	13	15	0	100%

**Table 14: Showing effect of therapy on subjective parameter Oedema**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	2.25	0.96	1.29	57.33%	0.45	0.087	14.82	<0.001	S.S.

Initially the mean effect for oedema was 2.25 before treatment which reduced up to 0.96 after treatment with 57.33% of relief which was statistically significant ( $p < 0.001$ ) result with t value 14.82.

**Table 15: Showing effect of therapy on subjective parameter - Pruritis**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	1.03	0.28	0.75	72.81%	0.57	0.11	6.81	<0.001	S.S.

Initially the mean effect for pruritis was 1.03 before treatment which reduced up to 0.28 after treatment with 72.81% of relief which was statistically significant ( $p < 0.001$ ) result with t value 6.81.

**Table 16: Showing effect of therapy on subjective parameter Nausea**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	0.53	0.03	0.5	94.33%	0.5	0.096	5.2	<0.001	S.S.

Initially the mean effect for nausea was 0.53 before treatment which reduced up to 0.03 after treatment with 94.33% of relief which was statistically significant ( $p < 0.001$ ) result with t value 5.2.

**Table 17: Showing effect of therapy on subjective parameter Generalized Weakness**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	1.43	0.53	0.9	62.93%	0.41	0.079	11.39	<0.001	S.S.

Initially the mean effect for generalized weakness was 1.43 before treatment which reduced up to 0.53 after treatment with 62.93% of relief which was statistically significant ( $p < 0.001$ ) result with t value 11.39.

**Table 18: Showing effect of therapy on subjective parameter Pallor**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	1.89	1.25	0.64	33.86%	0.48	0.092	6.95	<0.001	S.S.

Initially the mean effect for pallor was 1.89 before treatment which reduced up to 1.25 after treatment with 33.86% of relief which was statistically significant ( $p < 0.001$ ) result with t value 6.95.

**Table 19: Showing effect of therapy on objective parameter Serum creatinine**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	1.71	0.57	1.14	66.67%	0.35	0.07	16.28	<0.001	S.S.

Initially the mean effect for serum creatinine was 1.71 before treatment which reduced up to 0.57 after treatment with 66.67% of relief which was statistically significant ( $p < 0.001$ ) result with t value 16.28.

**Table 20: Showing effect of therapy on objective parameter Hb%**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	1.89	1.07	0.82	43.38%	0.38	0.073	11.23	<0.001	S.S.

Initially the mean effect for Hb% was 1.89 before treatment which reduced up to 1.07 after treatment with 43.38% of relief which was statistically significant ( $p < 0.001$ ) result with t value 11.23.

**Table 21: Showing effect of therapy on objective parameter Urine albumin**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	2.07	1.25	0.82	39.61%	0.47	0.09	9.11	<0.001	S.S.

Initially the mean effect for Urine albumin was 2.07 before treatment which reduced up to 1.25 after treatment with 39.61% of relief which was statistically significant ( $p < 0.001$ ) result with t value 9.11

**Table 22: Showing effect of therapy on objective parameter Serum urea**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	2.89	1.71	1.18	40.83%	0.41	0.079	14.93	<0.001	S.S.

Initially the mean effect for serum urea was 2.89 before treatment which reduced up to 1.71 after treatment with 40.83% of relief which was statistically significant (p<0.001) result with t value 14.93.

**Table 23: Showing effect of therapy on objective parameter GFR**

No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	3	2	1	33.33%	0.27	0.052	19.23	<0.001	S.S.

Initially the mean effect for GFR was 3 before treatment which reduced up to 2 after treatment with 33.33% of relief which was statistically significant (p<0.001) result with t value 19.23

**Table 24: Showing effect of therapy on objective parameter Blood pressure**

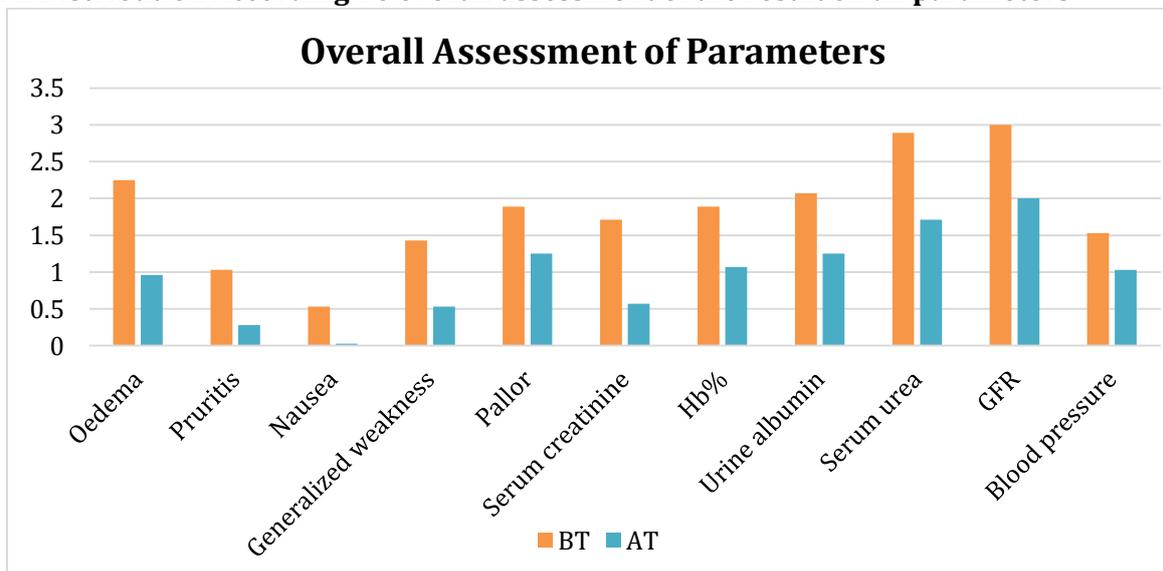
No. of Patients	Mean		Mean difference	% of relief	S.D.	S.E.	t	P	Remarks
	BT	AT							
28	1.53	1.03	0.5	32.68%	0.5	0.096	5.2	<0.001	S.S.

Initially the mean effect for blood pressure was 1.53 before treatment which reduced up to 1.03 after treatment with 32.68% of relief which was statistically significant (p<0.001) result with 't' value 5.2.

**Table 25: Distribution According To overall assessment of the result on all parameters**

Parameter	Mean		Percentage of relief
	BT	AT	
Oedema	2.25	0.96	57.33%
Pruritis	1.03	0.28	72.81%
Nausea	0.53	0.03	94.33%
Generalized weakness	1.43	0.53	62.93%
Pallor	1.89	1.25	33.86%
Serum creatinine	1.71	0.57	66.67%
Hb%	1.89	1.07	43.38%
Urine albumin	2.07	1.25	39.61%
Serum urea	2.89	1.71	40.83%
GFR	3	2	33.33%
Blood pressure	1.53	1.03	32.68%

**Graph No: 1 Distribution According To overall assessment of the result on all parameters**



**Table 26: Showing the Overall effect of study**

Relief	No. of subjects	Percentage	Remarks
Above 75%	0	0%	Marked relief
51% to 75%	14	50%	Moderate relief
26% to 50%	14	50%	Mild relief
Less than 25%	0	0%	No relief

## DISCUSSION

The purpose of discussion is to interpret and describe the significance of findings in light of research study. It is a bridge which connects the findings with conclusion. If all the points are discussed with proper reasoning then they help to draw valid conclusions. Therefore, discussion is the main substratum of any type of research work.

Oedema in CKD patients is due to the sodium imbalance and fluid retention in the body. In present study approximately we are able to give 60% of improvement due to the correction of blood and serum impurities by *Raktashodhaka Dravyas*. Fluid retention is corrected by the use of *Mutra virechaniya* and *Shothahara dravyas*. Pruritis is the mirror image of the Increased Serum urea and cytokines in the body. In present study approximately we are able to give 70% of improvement, Due to the *Koshta shodhana* with *Hareetakyadi churna* Urea is eliminated through the Gut, as kidneys are compromised. *Kaishora Guggulu* being a best *Rasayana* and a drug for controlling serum urea and uric acid has given the moderate improvement in Pruritis. Nausea is due to the increased Uremic toxins, metabolic acidosis, GERD etc, in present study we are able to give 90% of improvement due to the *Deepana, Pachana* and *Koshtashodhana* effect of *Hareetakyadi Churna*. Generalized weakness in the subjects of CKD is due to the build-up of uremic toxins, inflammatory markers, cytokines, muscle weakness. In present study we found approximately 60% of the improvement due to the anti-inflammatory effect of drugs like *Kaishora guggulu, Guduchi, Sariva* etc.

In subjects of CKD, serum creatinine is just a marker of the kidney filtration rate but not exactly a parameter of renal function. In present study we could be able to give approximately 65% of improvement due to the action of *Raktashodhaka* property of *Kaishora Guggulu, Sariva, Trunapanchamoola, Manjishta* etc. One of the tough parameters to manage and improve in short duration and happens due to the deficiency in EPO hormone. In present study with the simple drugs like *Vidarigandha, Manjishta, Sariva* and *Kaishora guggulu* we were able to give approximately 40% of the improvement. Another toughest parameter to manage in the subjects of CKD. Until and unless the correction of the structural defect in the kidney it is difficult to manage albuminuria. But in the present study with the *Bastivishodhaka* and *Mutrala dravyas* like *Trunapanchamoola, Vidarigandha, Sariva* we were

able to manage with 40% of improvement. Serum urea is considered as the *Raktadhatugata mala* which is the main cause for uremic syndrome. In present study with the help of *Kaishora guggulu* and *Anubhuta Kashaya* in total we could be able to manage with 40% of improvement. GFR is one of the main parameters in the subjects of CKD. It is just a mirror image of serum creatinine, as we use Sr. creatinine for the calculation of GFR. In the present study we used MDRD equation of the estimation of GFR and able to manage approximately with the 30% of improvement by using *Kaishora Guggulu* and *Anubhuta Kashaya*. A difficult parameter has to be control over with the used medications in the trail. Before the treatment Mean Systolic BP was 155mm/Hg, after the treatment it reduced to 145mm/Hg with 6.45% of improvement. Before treatment Mean Diastolic BP was 87mm/Hg after treatment it reduced to 81mm/Hg with 6.89% of improvement. By the effect of *Mutrala* drugs which are present in the *Anubhuta Kashaya* approximately we were able to give 30% of the result by reducing the fluid over load on the circulatory System.

## CONCLUSION

- Chronic Kidney Disease is not a simple disease it can even be labeled as a Chronic Kidney Syndrome.
- Many allopathic anti-hypertensive drugs, diuretics, anti-diabetic drugs are available in the market but the side effects like hyperuricemia, myositis and hepatotoxicity were reported.
- Therefore, attention is now paid to search remedy in Ayurveda and other system of medicines.
- Chronic Kidney Disease can be correlated with the *Vrukka roga*. It is a disorder of *Mutravaha Srotas* with the involvement of mainly *Kapha pradhana Tridosha* and *Sapta dhatu* and *Mutra as Dushya*.
- Negligence of risk factors of CKD, increased use of oily and fast food, sedentary lifestyle, and psychological factors along with genetic predisposition play a major role in aetiogenesis of *Vrukka Roga*.
- *Samprapti* of CKD differs from each cause of Chronic Kidney Disease, As the *Samprapti* of hypertension induced CKD is totally different from the diabetes induced CKD. So treatment protocol will be different to each individual of CKD depending upon the cause of CKD.
- As it is *Bahudoshavastha, Shodhana* is indicated in *Vrukka roga*. And *Virechana* is one of the treatment

modalities in *Bahudosha* condition; it is selected in the form of *Koshtashodhana* in present study along with *Shamanoushadhi*.

- Subject who is suffering from *Vrukka roga* can be treated by following the treatment modality like *Virechana*, *Swedana*, *Mutrala Dravya*, *Rakta samshodhana* and *Pushtikara dravyas*, at last *Agnivardhana* and *Balavardhana Dravyas*.
- From above results, we can conclude that combined effect of *Shamanoushadhi* showed more effectiveness on subjective parameters like oedema, pruritis, nausea, generalized weakness and moderate reduction in the serum creatinine, serum urea, urine albumin and blood pressure. Subjects also showed moderate improvement in Hb% and Glomerular filtration Rate.
- In this study out of 28 subjects of CKD (*Vrukka Roga*), after treatment 14 subjects had moderate response to the treatment. 14 subjects had mild response to the treatment.

#### REFERENCES

1. Antony S, Fausi, Eugene Braunwald, Dennis L, Kasper, Stephen L, Hausery Dan L, Longo, J. Larcalzry jaameson, Joseph Loscalzo. Harrison's

Principle of Internal Medicine. 17<sup>th</sup> edition. Volume 2, Chronic kidney disease, Page No 1763-1768.

2. Janne M. Bargman, Karl Skorecki, Fauci, Braunwald, Kasper, Hauser Longo, Jameson, Loscalzo, Harrison's Principle of Internal Medicine, 17<sup>th</sup> edition, volume 2, Part 12:274, Chronic kidney disease, Page no: -1762.
3. Dr. Anna Moreshwar Kunte & Krishna Ramachandra Shastri Navre, edited by Pt. Hari Sadashiv Shastri Paradkar, Ashtanga Hridaya of vagbhatha with the commentaries Sarvangasundara of Arunadatta & Ayurveda Rasayana of Hemadri, Varanasi; choukamba samskrita samsthana. nidanashtana, chapter 9, shloka 40: Page no- 501.
4. Vaidya H.C.Kushwaha. Charaka Samhita of Agnivesha. Edited with 'Ayurveda Deepika' Hindi Commentary, Varanasi; Chaukhamba Orientalia, 2012. 2<sup>nd</sup> volume, Chikitsasthana 1<sup>st</sup> chapter 1<sup>st</sup> pada, shloka no.25, page no-05.
5. Dr. Kanjiv lochan. Bhaishajya ratnavali of govinda dassji bhishagratna commented upon vaidyashree ambikadatta shastri. Varanasi; choukamba samskrit samsthan 2<sup>nd</sup> volume, chapter 34 Mutrakrichra Adhikara, shloka no-20, Page no-459.

#### Cite this article as:

Rajshekar N. Shettar, Prashanth A.S. A Single Arm Clinical Trial to Assess the Combined Effectiveness of Anubhuta Kashaya and Kaishora Guggulu in the Management of Chronic Kidney Disease (CKD). International Journal of Ayurveda and Pharma Research. 2021;9(9):11-20.

<https://doi.org/10.47070/ijapr.v9i9.2013>

**Source of support: Nil, Conflict of interest: None Declared**

#### \*Address for correspondence

**Dr Rajshekar N. Shettar**

Final Year PG scholar,  
Dept. of Kayachikitsa,  
Ayurveda Mahavidyalaya,  
Hubballi.

Mail:

[rajshekarshettar@gmail.com](mailto:rajshekarshettar@gmail.com)

Phone: 7204286255,  
9380383871

Disclaimer: IJAPR is solely owned by Mahadev Publications - dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJAPR editor or editorial board members.

IMAGES

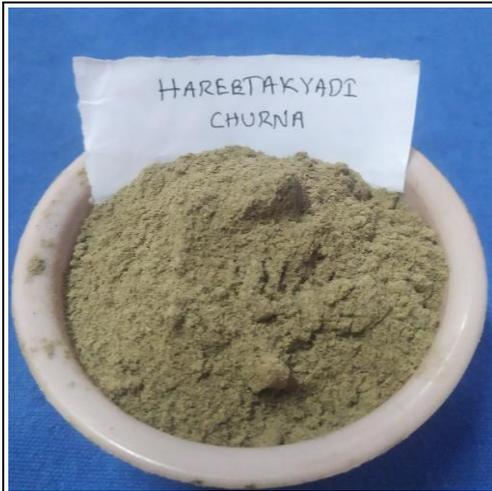


Figure 1: Hareetakyadi Churna



Figure 2: Kaishora Guggulu



Figure 3: Anubhuta Kashaya Churna



Figure 4: Ingredients of Anubhuta Kashaya