# A Case Report on Chronic Kidney Disease

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#### **ABSTRACT**

Chronic Kidney Disease is recognized as a major health problem affecting approximately 13% of the population. Chronic Kidney Disease (CKD) is defined as either kidney damage or glomerular filtration rate (GFR) < 60 ml/min/1.73m2 for at a period of 3 months or more. Kidney damage is characterized by structural or functional abnormalities, with or without decreased GFR, and is manifested either by pathological abnormalities or markers of kidney damage including abnormalities in the composition of blood or urine, or abnormalities in imaging tests. A 55 year old moderately built male patient diagnosed case of CKD was admitted in Taranath Government Ayurvedic Medical College and hospital on 2nd August 2021. The patient was complaining of Dourbalya (weakness), Pandu (Anemia), Padashotha (pedal edema), Arohana ayasa (Exertional dyspnoea), Swasakrichrata (Breathlessness) for 9 years which was gradual in onset. Investigations done before treatment. Hareetakyadi yoga does urdhwa adho shodhana because it contains vacha, pippali, saindhava does urdwa shodhana, Haritaki does vatanulomana this will enhance bio availability of the drugs because shodhana helps in removing the free radicals present in the micro circulatory channels. All the drugs in the formulation Pathyapunarnavadi churna are shophahara, this property helps to eliminate the kleda sanchaya in body, and accumulation of kleda is one of the important factors in the samprapthi of CKD. Rasayana guna of drugs in the formulation helps in maintaining the integrity of dhathu and dhathuvaha srothas.

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#### INTRODUCTION

Chronic Kidney Disease<sup>1</sup> is a significant worldwide health problem with multiple etiology resulting in inexorable attrition of nephron number and function. CKD is typically identified through routine screening with serum chemistry profile and urine studies or as an incidental finding. Screening may be important to early detection of the disease. CKD stage 1 and 2 can be taken as a santarpana janya vyadhi. santarpana nidana leads to agnimandya. This agni dusti further leads to ama formation. Ama is by-product of undigested food due to jataragnimandya and is the toxic metabolite which is not needed for the body. Due to jataragnimandya dhatwagnimandya occurs and by this proper nutrient are not formed by the dhathus. The ama and mandagni vitiates the pachaka pitta situated in between pakwashaya and amasaya which has the function of digestion and anna vivechana<sup>2</sup>. And also cause vitiation of samana vayu situated at antaragni sameepastha which has the function of promotion of pachaka pitta<sup>3</sup>.

The ama and agnidushti further vitiate Avalambaka and kledaka kapha. This will cause the increased production of dravamsha in kapha, in patient with madhumeha formation of Bahudrava kapha also occur<sup>4</sup>. This bahudrava kapha,ama,pitha etc. will cause the over production of kleda in the body. The production of kleda also causes manifestation of Hypertension which in turn will promote kleda formation and vice versa. Dushitha pitha and raktha in Hypertension are the promoters of kleda.

# **OBJECTIVES OF THE STUDY**

- 1. To evaluate the effect of Guduchyadi vasthi and pathyapunarnavadi churna in the management of Chronic Kidney Disease
- 2. To improve the quality of life of Chronic Kidney Disease patients.

#### **CASE PROFILE**

A 55 year old moderately built male patient was admitted in Taranath Government Ayurvedic Medical

College and hospital on 2<sup>nd</sup> August 2021. The patient was complaining of Dourbalya (weakness), Pandu (Anemia), Padashotha (pedal edema), Arohana ayasa (Exertional dyspnoea), Swasakrichrata (Breathlessness) for 9 years which was gradual in onset.

### **History of present illness**

Patient was apparently normal before 9 years with a proper built and strength. Gradually started getting back pain, headache occasionally associated with giddiness and dizziness. Patient also had burning micturition. For that complaints, he went to a Hospital in Kurnool and was diagnosed for severe uncontrolled Hypertension and was prescribed for the same. In the next 3 years patient started getting pain and burning sensation over the epigastrium and reduced appetite. The occasional giddiness and generalised weakness persisted and he went to Govt Hospital Kurnool. There patient was diagnosed as a case of CKD with the reports of USG and biochemical parameters of aggravated serum creatinine and uric acid levels. Later in the year 2016, patient started getting severe cough, difficulty in breathing, and evening rise of temperature. The AFB test was negative but the Xrays were suggestive of Bronchopneumonia or Pulmonary tuberculosis and took a course of ATT for 6 months. The complaints of pain and burning sensation in epigastrium along with loss of appetite was persisting for which the tests done revealed the diagnosis of GERD. Patient was also advised for 2D ECHO Cardiograph which gave reports of LVH and MR or AR.

Patient also started experiencing the blurred vision since then and consulted in the same hospital at Kurnool where they diagnosed the condition as Hypertensive Retinopathy. Since 3 years he was getting disturbed sleep and is under sleeping pills. Other than all of the above, patient had 3 episodes of Malaria and 3 episodes of Enteric fever in these 9 years. Patient also underwent cataract surgery 4 moths back for the left eye. The Doctors over there stated that the condition cannot be cured, can only be managed by regular dialysis. Hence patient rejected it and came to Taranath Government Ayurvedic Medical College Hospital, Ballari for treatment.

### Past medical history

Patient also underwent cataract surgery 4 moths back for the left eye.

# Family history

Brother is suffering from Chronic Kidney Disease since 5 years.

### **Clinical findings**

#### Vitals

Pulse: 74 bpm, Heart rate: 73bpm, BP – 130/90 mmHg, Respiratory rate: 18/min

### **Systemic Examination**

CVS: S1 S2 heard, Cardiac murmur heard between S1 and S2

RS: Respiratory rate -24/min, Wheezing +++, Rhonchi++, Crepitations ++, Tactile fremitus ++

CNS: Conscious, Oriented

Abdomen: Kidney not palpable, normal bowel sounds

# Dashavidha pareeksha

Shareera prakriti was of Vata Pitta. The dosha involved was of Vata kapha pradhana tridosha. Patient was having Madhyama satwa Avara sara, Avara samhanana, Pravara satmyatha, Avara abhyavaharana Shakti, madhyama jaranashakti, Avara pramana, Avara vyayama Shakti and madhyama vaya.

# On investigation

The blood test showed the level of Serum urea as 73.4 mg/dl, Serum creatinine as 5.6 mg/dl Haemoglobin as 9.5 gms% RBS as 105mg/dl.

### **Management Protocol**

The patient was administered with Hareetakyadi churna<sup>5</sup> for 5 days with which the koshtashudhi lakshanas are seen. It was then followed by niruha vasthi with Guduchyadi kashaya<sup>6</sup> and vaiswanara churna<sup>7</sup> for 8 days.If any vatavridhi lakshanas like Badhashakrit, Twak rukshata,Nidra alpata etc Anuvasana can be done with murchita tilataila 70 ml.It was then followed by Pathyapunarnavadi churna<sup>8</sup> 2gm before food with takra three times a day. The detailed protocol is shown in table no.1

Table 1: The treatment protocol undertaken in the patient of Chronic Kidney Disease.

Tuble 1. The creatment protocol undertaken in the patient of emonie thaney Discuse.									
	Drug	Dose	Duration	Sevana kala	Anupana				
1	Hareetakyadi yoga	12gm	5 days	Empty stomach, Morning   Warm water					
2	Guduchyadi kashaya	300ml	8 days	Morning,Empty stomach					
3	Vaiswanara churna	20g	o days						
4	Pathyapunarnavadi churna	2g	30 days	Before food,TID	Warm water				
Total duration of the study 43 day									

## **RESULT**

The patient was having Dourbalya all the time, after vasthi it markedly reduced. Arohana ayasa reduced significantly after vasthi. Pandu lakshanas improved after shamana rasayana. Swasakrichrata reduced gradually during Yogavasthi. Lakshanas were assessed before treatment and after vasthi after shamana rasayana. All the symptoms present before treatment reduced significantly after vasthi and rasayana. On biochemical parameters Urea reduced from 73.4 mg/dl to 62.3, Vasthi was shown more effective in reducing serum creatinine. But improvement in Haemoglobin was best achieved by Shamana rasayana.

Table no: 2 Changes in Blood investigation before treatment, after vasthi and after rasayana

SL NO	PARAMETER	BT	AFTER VASTHI	AFTER RASAYANA
1	Serum Urea	73.4	69.8	62.3
2	Serum creatinine	5.6	3.6	4.1
3	Hb	9.5	9	9.9
4	TC	6600	5900	5900
6	CRP	12.3	10	9.3
7	RBS	105	101.2	89.6
8	Serum Calcium	7.9	7.9	8
9	Serum Potassium	5.7	4.7	4.6
10	Serum Chloride	113.5	103.4	102.9
11	Serum Sodium	144.3	143	143

#### **DISCUSSION**

Chronic Kidney disease is a santarpanotha vikara with Bahudosha and kleda pradhana. Initial stages of disease is asymptomatic in maximum patients. The disease as such not mentioned in brihatrayee and laghutrayee. Eventhough Bhaisajya ratnavali dedicated a separate chapter for Vrikka roga<sup>9</sup>. Major causative factors leading to the development of CKD are Diabetes and Hypertension.

The function of sepration of malabhavas from saramsa is done by Samana vayu and Pachaka pitha. Mootra is the dravaroopa mala carrying excess kleda in the body, formed in the mootradharakala situated in vrikka. Kleda, Bahudrava kapha, samana vayu, pachakapitha, and other dhathus deranged and get localised in vasthi and mootradhara kala. Finaly ayanadourbalya of mootradhara kala occur due to the sithila dooshitha dushyas.

This ayanadourbalya ultimately leads to the excessive loss of dhathusaramsa along with kledabhavas because of their loss of ability to hold them back before separating from malabhavas. This atipravritti of srothas cause vata prakopa and structural damage of organ. Albuminuria seen in CKD stage 1 and 2 is nothing but the excess loss of dhathusaramsa due to ayanadourbalya.

Hareetakyadi yoga is a poly herbal formulation containing nine ingredients such as Haritaki, Amalaki, Pippali, Shunti, Saindhava etc. It does urdhwa adho shodhana because it contains vacha, pippali, saindhava does urdwa shodhana, Haritaki does vatanulomana this will enhance bio availability

of the drugs because shodhana helps in removing the free radicals present in the micro circulatory channels. Shunti and pippali does Deepana Amapachana action.

Haritaki has been found to be effective in breaking chain reaction and also proved to have the best hydroxyl radical scavenging activity among all. Thus karshana guna of haritaki is proved and is helpful in cleansing the channels or vessels and elimination of dosha corrects the derangement of apana vayu which is responsible for mutranishkramana. Amalaki is the richest source of ascorbic acid and is needed for the smooth functioning of glutathione. Polyphenols in Vidanga have shown a positive neuroprotective function and increase the glutathione (GSH) levels of brain, and thus relieve the oxidative stress. Shunti possesses antioxidant activity, which is attributed to its high phenolic contents, Pippali mainly acts on catalase enzyme. Piper has a good carminative property, which is helpful in digesting food in a proper way and leads to better nourishment of Rasa to Shukra Dhatu, Owing to all these properties, Shodhana performed specially with Haritakyadi Yoga may have provided additional benefits.

Vasthi is administered in the pakvasaya, it has action throughout the body, properly given vasthi, remains in the pakvasaya, sroni, and below nabhi and through the srotas, the virya of vasthi dravya is spread to the entire body. Similarly, though vasthi remains in the body only for a short time and it secreted along with mala by the action of apana vayu, due to veerya, the dosha/ morbid factors situated from the head to foot are also thrown out of the body.

Pathyapunarnavadi churna contain 10 ingredients, out of 10 Mandura is the main ingredient (half). Mandura mainly Pitta kaphahara in action. CKD is a santharpanotha vikara with kledavridhi in the body, So Ap mahabhuta vridhi and Agni mahabhuta kashaya in the body. Samprapti clearly showed the involvement of udaka,kleda which is having gunas like sheeta, guru, snigdha etc so to counteract, drug of choice should be Laghu Ruksha guna pradhana. Among type of Bhaisajya kalpana Churna can be the better choice and the yoga pathyapunarnavadi churna having Ruksha and laghu guna predominant,Rakta dhathu poshaka, Deepana mutrala, Rasayana has been selected for trial in CKD.

Punarnava contains large number of compounds such as flavonoids, alkaloids, steroids, di terpanoides, lipids, lignins, carbohydrates, Proteins and Glyco proteins, Flavanoids, Alkaloids glycosides and sterol have established antioxidant activity by providing nutrition to nephrons. By ushna virya it can correct the dhathusanga and regeneration of renal tissue due to anti inflammatory and diuretic action. Looking in to the diversified actions, mandura and its preparations are vital in treating Pandu. The ferric and ferrous fractions of mandura provide sufficient amount of iron to the living matter, which is needed for normal Erythropoiesis.

All the drugs in the formulation are shophahara, this arch and property helps to eliminate the kleda sanchaya in body, and accumulation of kleda is one of the important factors in the samprapthi of CKD.

Rasayana guna of drugs in the formulation helps in maintaining the integrity of dhathu and dhathuvaha srothas.

#### **CONCLUSION**

Chronic Kidney Disease is a Kleda pradhana tridoshaja vyadhi where shodhana is indicated. Considering the adhishtana of disease as pakwashaya vasthi chikitsa can be adopted with Ayugma Yogavasthi schedule. Initially Koshtashodhana performed with Hareetakyadi yoga for five days followed by Yogavasthi and nephro protective Panduhara shamana rasayana is administered. Total duration of treatment was 43 days. Patient got symptomatic relief as well as improvement in the biochemical parameters with the course of treatment.

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