



# AYURVEDIC APPROACH TO CHRONIC KIDNEY DISEASE (CKD): A SINGLE CASE STUDY

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## Abstract:

Kidneys are the pair organs that filter the waste material out of blood and pass them out through urine. But due to some etiological factors kidney is unable to filter the waste out and thus the waste materials remains in blood and causes several diseases. The term “Chronic Kidney disease” means to lasting damage to the kidneys that get worse with time. It is characterized by gradual loss of kidney function over time. Several factors can cause chronic kidney disease but the most common reasons are Diabetes and Hypertension. Recently, data from the international society of Nephrology’s kidney Disease Data Center Study reported a prevalence of 17%. The reported prevalence of CKD in different Indian regions ranges from <1% to 13%. As the rate of prevalence is high, a lot of people suffers from kidney diseases. According to modern science kidney disease are thought to be irreversible and the treatment involves symptomatic management and dialysis which is also not so cost effective. Therefore, there is very scope for the treatment of CKD through Ayurveda.

**KEYWORDS:** Chronic Kidney Disease, Hypertension, Diabetes.

## INTRODUCTION:

Chronic Kidney Disease is a disease which leads to gradual loss of kidney function. It can also be defined as the Glomerular Filtration Rate of less than 60 ml/minute/1.73 m<sup>2</sup> for 3 months or more, with or without kidney damage.<sup>1</sup> or kidney damage for 3 or more months with or without decreased glomerular filtration rate. The prevalence of CKD in India ranges from <1% to 13% in different regions.<sup>2</sup>

## Causes of CKD:<sup>3</sup>

CKD is a prolonged disease and it is a byproduct of one or more chronic diseases. The several causes of CKD are:

- Diabetes.
- Hypertension
- Glomerulonephritis
- Polycystic kidney
- Malformation at the time of birth.

## Symptoms of CKD:

- Loss of Appetite
- Chest pain
- Edema
- Nausea and Vomiting
- Constant Fatigue

## Stages of CKD:<sup>4</sup>

- Stage 1: slight kidney damage with normal or increased filtration, GFR  $>90$  ml/min/ $1.73\text{m}^2$ .
- Stage 2: mild decrease in kidney function, GFR 60-89 ml/min/ $1.73\text{m}^2$ .
- Stage 3: moderate decrease in kidney function, GFR 30-59 ml/min/ $1.73\text{m}^2$ .
- Stage 4: severe decrease in kidney function, GFR 15-29 ml/min/ $1.73\text{m}^2$ .
- Stage 5: kidney failure requiring dialysis or transplantation, GFR  $<15$  ml/min/ $1.73\text{m}^2$ .

CKD is identified by blood test for creatinine, which is the breakdown product of muscle.<sup>5</sup> As the kidneys are unable to filter the waste from the body, the concentration of such waste materials like urea, creatinine can be detected easily in high concentration in blood. Though the concept of CKD is new to Ayurveda, as the description of this disease is not available in ayurveda but the treatment can be done on the basis of Dosha, Dushya and Adhistan along with the strength of disease and the patient, as Ayurveda proclaims that naming of the disease is not necessary but the main focus should be the treatment of the basis of involvement of Dosha, Dushya and the adhistan.

## Case Report:

A 60 yr.old man came to the OPD with following complaints:

## Chief Complaints:

- Known case of CKD since six year.
- Body ache since six month.
- Pedal edema since one year.

- Vomiting since one month.
- Nausea since one month.

### History of Present Illness:

The patient is known case of CKD since six years, and having complaints of body ache, pedal edema, vomiting and nausea. So, For *Ayurvedic* treatment, patient came to OPD of SAHMC MOHALI.

### Past history:

- History of Hypertension, Diabetes mellitus is present.
- History of heat stroke 2 years ago
- Addiction: History of alcohol consumption stopped 2 years ago.

### Personal history:

O/E:

Name – XYZ	Pulse rate – 84/min	Sleep – Little Disturbed
Age – 60 yrs	B.P.- 150/90mmhg	<i>Agni – kshudha mandya</i>
Gender– Male	Temperature: 98.6 <sup>0</sup> F	
Marital status- Married	Bowel habit – Normal	
Prakruti - Pittakaphaj	Appetite – Reduced	

### Systemic Examination:

CNS: Well oriented to person, place and time.

CVS: normal apex beat, S<sub>1</sub>, S<sub>2</sub> sound present.

R/S: B/L clear, B/L equal air entry.

### Material and Method:

a) Method:

- Patient was treated on OPD basis
- Simple Random Single Case Study.

## b) Material:

## • Parameters:

## 1) Edema

	Sign and symptom	Score
1.	No edema	0
2.	Slight edema on lower extremities	1
3.	Severe edema on lower extremities	2
4.	Anasarca	3

## 2) Nausea / Vomiting

	Sign and symptom	Score
1.	Absent	0
2.	Occasional	1
3.	Once or twice a week	2
4.	Daily	3

## 3) Loss of Appetite

	Quantity of food intake	Score
1.	Taking food in good quantity twice/thrice	0
2.	Taking moderate quantity of food	1
3.	Person taking food in less quantity	2
4.	Not at all taking food	3

## 4) BUN (Blood Urea Nitrogen)

## 5) Serum Creatinine

## 6) Uric Acid will be recorded before and after the treatment.

**Treatment given at the time of Admission:**

After thorough physical and systemic examination, the patient was given Ayurvedic medicines along with Pathya Aahar and Pranayama.

• **Ayurvedic Medicines :-**

- 1) Punarnavashtak Kwath 40ml BD (Bhaishajyaratnavali)
- 2) Gokshuradi Guggul 125mg -2 BD (Bhaishajyaratnavali)

• **Pathy Aahar:**

Warm water for drinking,

Salt restricted diet,

Veggies: bottled guard, bitter guard, ridge guard, smooth guard, pumpkin which contains water: easy for digestion,

Use of Barley (Yava), Sorghum (Jwara), Indian Gooseberry (Amla), Butter milk (Takra), Green Gram (Mudga), Horse Gram (Kulattha)<sup>7</sup>.

- Breathing techniques **Prānāyāma**<sup>6</sup> ( total ~ 10-minute session)- Hands in and out breathing (10 rounds in 2 minutes), hand stretch breathing (10 rounds in 2 minutes), tiger breathing (10 rounds in 2 minutes), alternate nostril breathing (Nādisuddhi; in 5 minutes), left nostril breathing (Chandra Anuloma Viloma; 27 rounds in 5 minutes, 4 times per day), humming bee breath (Bhramari; in 2 minutes), Cooling pranayama (Shitali; 9 rounds) and abdominal breathing in lying-down position in 2 minutes.

### Observations & Result:

Sign and Symptoms	Before treatment	After treatment
Edema	2	1
Nausea /Vomiting	2	1
Loss of Appetite	2	1
Serum Creatinine	6.49 mg/dl	5.50 mg/dl
BUN	89.21mg/dl	84 mg/dl
Uric Acid	7.00mg/dl	6.4 mg/dl

Above table show, that there is significant result of *ayurvedic treatment* in CKD.

### Discussion:

CKD is a disease, which leads to gradual loss of kidney function. Dialysis is the only option for the patient and even though modern science, considers CKD as a irreversible disease. Ayurvedic treatment can be seen promising for the patients since they are cost effective and a positive result was seen during this patient treatment. Treatments through Ayurvedic medicine have shown significant improvement in this case. A significant reduction in Serum Creatinine, BUN, and uric acid was shown. Thus, we can say that the given ayurvedic drugs, diet management and Pranayama are effective in CKD.

### Conclusion:

The ayurvedic treatment has the capacity to normalize the associated clinical symptoms and laboratories parameters related to CKD. It provides a positive lead for further scope of the ayurvedic treatment in CKD.

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