



## Ayurveda –A non-invasive treatment modality recuperating kidney functions in CKD (chronic kidney disease) –A case report

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Received on 03/12/2023

Accepted on 15/12/2023

Reviewed on 18/01/2024

Published on 31/01/2024

### Abstract

Chronic kidney disease (CKD), falls under the umbrella of non-communicable diseases, depicts high prevalence worldwide & has emerged as a global threat, intending patients with compromised health & despair, whereas *Ayurveda* treatment modality nestles kidney empowering herbs thereby ameliorating kidney functions.

In the present study, 48-year-old male patient from Delhi approached OPD of Ayurveda Hospital for consultation with complaints of frothy urine and general weakness for 3 months. Serum Creatinine levels were raised to 2.24(10-3-2023)). He had hypertension since 2yrs and was a known case of CKD for 3 months. He was prescribed with *Ren Plus Ultra Kwatha churna* (10 g) before meal, *Tab Renal Plus (400mg) 2Tab TDS* after meal, *Arka Nephrowin* 20ml BD with equal amount of water after meal and *Tab Liv (500mg) 1 Tab BD* after meal. The patient was given dietary recommendations such as avoiding milk and milk products, vegetables such as cabbage, spinach, brinjal etc. Decrease in creatinine level to 1.29mg/dl (28-4-2023) were observed in 1 month. Hence, the case clearly promulgates the ascendancy of *Ayurveda* treatment modality in the superintendence of CKD.

Keywords: *Ayurveda*, Chronic kidney disease (CKD), *Mutravaha strotas vikar*, Nephroprotective

## Introduction

Chronic Kidney Disease is distinguished by progressive, irreversible deterioration of renal function, developing over years owing to the slow destruction of renal parenchyma thereby damaging sufficient nephrons, eventually leading to death. [1]. Based on the estimated glomerular filtration rate (eGFR), CKD may be divided into five stages. GFR of < 60 mL/min/1.73 m<sup>2</sup> is abnormal in all age groups. The most severe type of CKD is an end-stage renal disease, also known as stage fifth, where the kidneys cannot maintain homeostasis [2]. Common causes and risk factors of CKD include: diabetes, hypertension (High Blood Pressure), polycystic Kidney Disease (PKD), autoimmune diseases: conditions like lupus and IgA nephropathy, infections: such as pyelonephritis (kidney infection) and HIV, Repeated or large kidney stones, obstructive kidney diseases such as enlarged prostate or urinary tract obstructions, prolonged use of certain medications (e.g., non-steroidal anti-inflammatory drugs or NSAIDs) or exposure to toxic substance, declining age and a family history of kidney disease further increases the risk of developing CKD [3]. CKD initially presents only as a biochemical abnormality but later there occurs loss of the excretory, metabolic and endocrinal functions of the kidney, leading to the manifestation of clinical signs & symptoms such as breathlessness, nausea, loss of appetite, weight loss, proteinuria, gout, fatigue, anemia, weakened bones, itching, cognitive impairment and trouble concentrating, edema, congestive heart failure etc. [4] In *Ayurveda* it is treated as *Mootravaha srotas vikar* (disorder of urinary system) depicting clinical manifestations as voiding too much urine or complete cessation of urine, impaired urine composition, passage of thick urine associated with pain etc. The signs & symptoms of chronic kidney disease are very

complex and based on causative factors and stage etc., it depicts various presentations and different aggravated degree of various signs and symptoms [5]. Medicinal *Kvathas* (decoctions), *Kalkas* (medicated bolus), *Ghritas* (clarified butter), various kinds of preparations of milk, alkali's etc. should be employed for the aforesaid ailments. [6]. The treatment deployed aims at enhancement of digestive fire, balancing vitiated *Doshas* (biological humors), *Sroto shuddhi* (Cleansing the micro channels) and *Rasayana chikitsa* (Rejuvenating drugs)

## Case report

### *Patient information*

A 48-year-old male patient, from Delhi, Hindu by religion, moderately built, came to the outpatient department (OPD) of Ayurveda hospital on March 21, 2023 with complaints of frothy urine and general weakness since 3 months.

### *Medical history of past illness*

Patient was a known case of CKD (Chronic kidney disease) for 3 months and hypertension since 2 yrs. and was on allopathic treatment for the same. Patient left allopathic treatment for CKD from past 1 week and had come to OPD for further management.

There was no history of bronchial asthma or tuberculosis or dialysis, or any other major medical or surgical history.

### *Personal history*

Vegetarian, no history of alcohol intake or smoking, no history of any stress or anxiety. Bowel: normal, Bladder: frothy urine, Sleep: normal, Appetite: normal

### *Family history*

Positive family history, brother had CKD.

### *Clinical Findings*

The patient was moderately built, well nourished (apparently), afebrile. No Pallor/ Icterus / cyanosis / clubbing / edema / lymphadenopathy were observed. Tongue was uncoated. At the time of examination Pulse rate was 72/min with normal rhythm and B.P-110/74, weight- 60 kg. On systemic examination, no circulatory, respiratory, and digestive abnormalities were noticed. Per abdominal examination did not reveal anything significant.

*Dashavidha pareeksha* (~ Ten fold examination)

*Prakriti* (~body temperament) was *Vata pitta*; *Vikriti* was *Prakritisamsamveta*; *Satva* (~psyche) was *Madhyama* (~moderate); *Sara* (~excellence of tissues), *Samhanana* (~compactness of organs), *Aahara shakti* (~power of food intake), *Satmya* (~suitability), *Pramana* (~measurement of body organs) were *Madhyama* (~moderate). *Vyayama Shakti* (~power of performing exercise) was *Madhyama* (~moderate).

*Ashtavidha pareeksha* (~eight fold examination)

*Nadi Pariksha* (pulse examination) revealed *vata-Pittaj gati* with a pulse rate of 72/min. *Mala* (bowel) was normal; *Mutra* (urine) was *Phenila* (less in amount and frothy);

*Shabda* (voice) was *Sadharana* (normal); *Jihva* (tongue) was *Niraam* (uncoated); *Sparsha pariksha*, was *Anushnasheetata* , *Drik* was *Samanya* in terms of movement and appearance, eye contact was made, *Akriti* (~body built) was *Madhyama* (moderate)

### *Diagnostic assessment*

Looking into the signs and symptoms, the diagnosis was made by blood investigations for Serum creatinine levels.

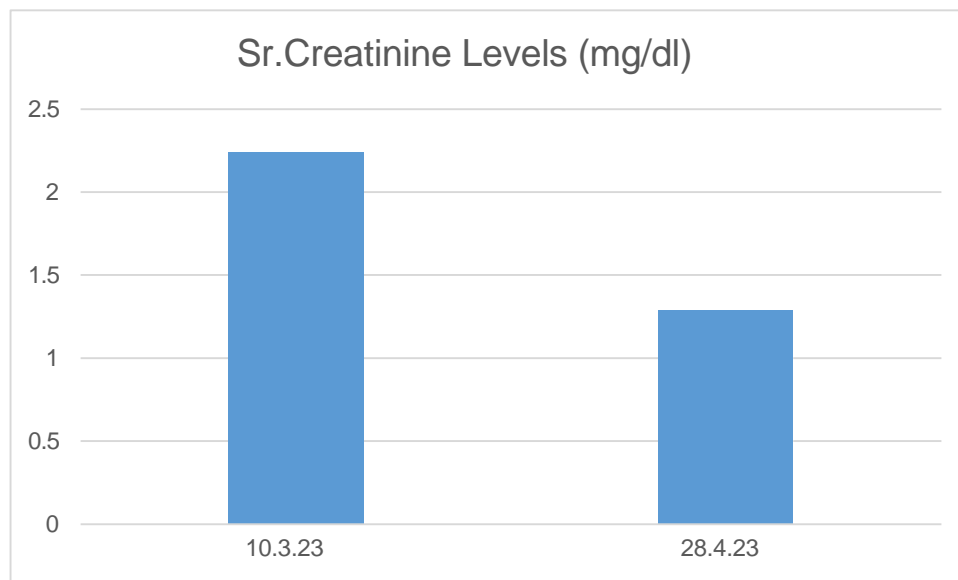
### *Treatment protocol*

After thorough examination of the patient, the treatment was started *Ren Plus Ultra Kwathachurna*( 10 g)beforemeal, *Tab Renal Plus (400mg)* 2*Tab TDS* after meal, *Arka Nephrowin* 20ml BD with equal amount of water after meal, , *Tab Liv (500mg)* 1 Tab BD after meal, , for one month.

Dietary recommendations were given such as avoiding milk and milk products, vegetables such as cabbage, spinach, brinjal etc.

### *Outcome*

There was the improvement in urine froth. However general weakness persisted. There was a gradual decrease in Serum Creatinine levels from 2.24(10- 3- 2023) to 1.29(28-4-2023) mg/dl in 1 Month.



## Discussion

Currently, available conventional treatments for CKD have their own limitations, despite of splendid expenditure on contemporary treatment, patients with advanced CKD, particularly those on dialysis, often experience significant physical and mental ill-health such as muscle weakness, depression etc. Therefore alternate remedies capable in enhancing quality of life & being cost effective are being emphasized for curing and curbing the disease progression.<sup>7, 8</sup> There exist no direct reference for CKD, *Charaka* had clearly propounded that each & every disease could not be named, therefore the diseased condition could be understood on the basis of involved *doshas*, *dhatu*s, and *srotas* etc.<sup>9</sup> On having an outlook on CKD as per modern description, based on its symptoms such as Oliguria, decreased Glomerular Filtration Rate (GFR), hyperuricemia etc., it can be treated on the lines of treatment of *Mutravaha Srotasa Vikara*(disorder of urinary system), CKD depicts derangement of *Tridoshas* (three biological humours such as *Vata* , *Pitta* &

*Kapha*), with predominance of *Vata dosha*, *Agnimandya* (weak digestive fire), *Srotosanga* (obstruction in microchannels of *mutravaha srotas*), and *Vimarga gamana*(deflection of *Doshas* from their natural course). It is necessary to break the pathogenesis to obtain the desired results. Therefore, the treatment of CKD aims at the enhancing the digestive fire, balancing vitiated *Doshas*, diuresis and control of excessive salt and water retention, *Srotoshuddhi*(cleansing microchannels) and *Rasayana chikitsa*(rejuvenating drugs), which aims at creating an improved nutritional status.<sup>[10]</sup> In view of above line of treatment, the treatment of the present case was started. The patient depicted elevated serum creatinine levels. Serum creatinine being a waste product produced in the body as result of muscle activity & removed by the kidney. Therefore, elevated levels are observed in renal disease. Looking into signs and symptoms patient was started *Ren Plus Ultra Kwatha churna*( 10 g) before meal *Tab Renal Plus* (400mg) 2Tab TDS after meal, *Arka Nephrowin* 20ml BD with equal amount of

water after meal, , *Tab Liv (500mg)* 1 Tab BD after meal, for one month.

*Tab Renal Plus* contains *Gokshru (Tribulus terrestris L.)* as one of its main ingredients possessing diuretic , *Kapha & Vata doshas* alleviating and *Rasayana* action therefore capable in decreasing serum creatinine levels.<sup>[11]</sup> The ingredients of *Renplus ultra kvatha* are *Trina panchamoola* , *Punarnava(Boerhavia diffusa )* , *Gokshru (Tribulus terrestris )* , *Shatavari (Asparagus racemosus)* , *Giloy(Tinospora cordifolia)* , *Yava(Hordeum vulgare)* etc . *Trnapanchmoola kvatha* possess *Vata pitta shamaka*, diuretic, kidney stimulant and hemopoetic properties. In vitro studies depict radical-scavenging activity, thereby justifying its potential in treating ailments in which free radical production is observed.<sup>[12]</sup> CKD primarily involves *Vata* vitiation, causing kidney tissue degeneration, hence it is utmost essential to comprehend *Rasayana* drugs in treatment owing to their special tissue healing capabilities. *Punarnava*, *Shatavari* by virtue of their *Rasayana* action also depicted par excellence in CKD, therefore included in the treatment. Not only *Shatavari* is a rejuvenating herb, but also adds on to the nutrient value and In vivo studies further support the fact that *Shatavari* decreases the serum creatinine levels.<sup>[13]</sup> *Yava* is *Pitta shamaka* (pacifying Pitta), *Sheeta virya* (cold potency), useful in dysuria. *Arka Nephrowin* was prepared from distillates of *Punarnava etc. Tab liv* contain herbs like *Kalmegha (Andrographis paniculata)* that reconciles *Agni* and depict antiinflammatory<sup>[14]</sup> & renoprotective effects<sup>[15]</sup>.

### Conclusion

CKD patient was administered *Ren Plus Ultra Kwatha churna* (10 g) before meal, *Tab Renal Plus (400mg)* 2Tab TDS after meal, *Arka Nephrowin* 20ml BD with equal amount of water after meal, *Tab Liv(500mg)* 1 Tab BD after meal and in a span of 1 month patient

depicted significant improvement in urine froth and Serum Creatinine level declined from 2.24 to 1.29 mg/dl . Hence it is well evident that *Ayurveda* treatment modality is proficient in effectively managing CKD thereby perking up troubled kidney functions.

### Declaration of patient consent:

Written permission for publication of this case study has been obtained from the patient.

**Financial support:** NIL

**Conflict of interest:** NIL

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