



AYURVEDIC MANAGEMENT OF CHRONIC KIDNEY DISEASE (CKD) – A SINGLE CASE STUDY

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ABSTRACT

Background-Chronic Kidney Disease (CKD) is a long-term condition in which the kidneys gradually lose their ability to function properly. The kidneys are essential for removing waste from the body, maintaining fluid and electrolyte balance, controlling blood pressure, and helping in the production of red blood cells. Worldwide, CKD affects over 10% of people and can eventually progress to kidney failure, requiring treatments like dialysis or kidney transplantation, which are costly and may not always be fully effective.

Case Presentation: A 42-year-old woman presented with symptoms of frequent, foamy urination, tiredness, body swelling, and disturbed sleep, along with a history of poorly controlled high blood pressure. Laboratory investigations showed increased serum creatinine levels and a decreased estimated glomerular filtration rate (eGFR), consistent with stage 4 chronic kidney disease.

Intervention: The patient was managed at Gopabandhu ayurveda Mahavidyalaya, puri, using Ayurvedic formulations including Trinapanchamoola Kashaya, Gokshiradi Guggulu, Neph-x, Neeri KFT syrup, and supportive in-house preparations. Treatment was complemented with a CKD-specific diet and lifestyle regimen. Clinical progress was tracked using serum creatinine, eGFR, hemoglobin, and blood glucose levels.

Outcome: Over one and half months, significant improvements were recorded, including reduced serum creatinine, improved eGFR, and better overall well-being. Thus, it can be concluded that Ayurvedic approaches are helpful to manage CKD.

KEYWORDS: Chronic Kidney Disease (CKD), Glomerular Filtration Rate (GFR), Hemoglobin, Ayurvedic Formulations, Lifestyle Management.

INTRODUCTION

The kidneys are essential organs responsible for removing waste and excess fluid from the body, maintaining the balance of acids, bases, and electrolytes, supporting red blood cell production, and helping regulate blood pressure.

Chronic Kidney Disease (CKD) is a condition characterized by a progressive decline in the filtering capacity of the kidney's nephrons over time. In the early stages, it may only be detected through laboratory abnormalities. However, as the disease advances, it gradually impairs the kidneys' excretory, metabolic, and hormonal functions, ultimately leading to the development of signs and symptoms associated with kidney failure¹.

Table 1: Stages of CKD²

Stages of CKD	eGFR	% of normal kidney function
Stage 1	90 or greater	90-100%
Stage 2	89 to 60	89-90%
Stage 3a	59 to 45	59-45%
Stage 3b	44 to 30	44-30%
Stage 4	29 to 15	29-15%
Stage 5	Less than 15	Less than 15%



Case Report: A 42-year-old female patient presented at Gopabandhu Ayurveda Mahavidyalaya in Puri on January 5, 2026, exhibiting several symptoms suggestive of advanced renal dysfunction. For the past six months, she has experienced significant urinary changes, including nocturia (nighttime urination), urgency, and proteinuria (indicated by frothy urine). Her systemic symptoms include persistent fatigue, edema in the face and extremities, muscle cramps, and decreased appetite. Neurologically, she reported irritability, dizziness, and

disturbed sleep, alongside a weakened immune response marked by recurrent respiratory infections.

The patient's medical history is significant for untreated chronic hypertension. Two years prior, she was hospitalized for severe lethargy, lower back pain, and cognitive disorientation. At that time, diagnostic evaluations confirmed elevated serum creatinine and the presence of renal calculi (kidney stones), for which she received only temporary symptomatic relief. She reports no family history of similar conditions.

Table No-2 Astha-vidha Pariksha

1.	Nadi	Kapha Vata
2.	Mala	Hard (Badha mala)
3.	Mutra	7-8 times a day, 3-4 times a night, frothy
4.	Jihwa	lipta (White Coated tongue which represents ama(indigestion))
5.	Drik	Prakrita(NAD)
6.	Shabda	Gambhira
7.	Sparsa	Anushna Sheeta, Ruksha
8.	Aakriti	Uttama (Height –167 cm and Weight –78 kg)

Table no-3, Dashavidha Pariksha-

1.	Prakriti	Kapha vata
2.	Vikriti	pravara
3.	Sattwa	Madhyama sattwa
4.	Satmya	Madhyama satmya
5.	Ahara shakti	Madhyama
6.	Vyayama shakti	Pravara
7.	Sara	mamsa,medo,Ashthi sara
8.	Samhanana	Madhyama
9.	Pramana	Uttama
10.	Vaya	Madhya vastha

Vitals

Pulse rate - 84/min

Respiratory rate - 22/min

Temp - 98.6°F

BP - 150/95 mm of Hg

Systemic Examinations:

CNS - Well oriented to time, place, person

CVS - S1, S2 Normal, Blood pressure - 150/95 mm Hg

RS - Normal vesicular breathing

P/A - Soft non-tender, no organomegaly, umbilicus centrally placed

Diagnosis: Mutravaha Sroto Vikara (chronic kidney disease stage 4)

The patient's recent tests reveal some concerning shifts in his health, specifically regarding his metabolic and kidney function.

□ **Kidney Function (eGFR of 21.31 ml/min):** The eGFR (estimated Glomerular Filtration Rate) measures how well the kidneys filter waste from the blood. A level of 21.31 suggests that the kidneys are significantly struggling. In clinical terms,

this falls into Stage 4 Chronic Kidney Disease, meaning the kidneys are functioning at a fraction of their normal capacity.

□ **Elevated Serum Creatinine:** Creatinine is a waste product that healthy kidneys usually filter out. When blood levels rise, it is a direct "red flag" that the kidneys are unable to keep up with their filtration duties.

□ **Elevated Blood Glucose:** This indicates high blood sugar. Consistently high glucose levels can be a primary cause of kidney damage over time, as the excess sugar puts extra stress on the kidneys' delicate filtering units

MATERIALS AND METHODS

Chronic Kidney Disease though not described distinctly in Ayurveda classics similar conditions are discussed under disorders of the Mutravaha Srotas such as Vrikka Roga, Mutrakricchra, Mutraghata, Mutrasangha, Ashmari, and Prameha, which provide comparable clinical insights.[3]



Table 4-Treatment Schedule.

MEDICINE	DOSE	Anupana
Gokshiradi Guggulu	2tab bd/af	Usnajala
Trinapanchamoola Kashayam	15ml bd/bf	Usnajala
Neeri KFT	15ml bd/bf	Normal Water
Tab Neph X	2tab bd/af	Normal Water

RESULTS

In addition to Ayurvedic medications, the patient was advised on appropriate dietary and lifestyle modifications. Within two

weeks, notable improvement was observed in the patient's kidney function and other health parameters. By the end of Two months, significant overall progress was recorded.

Table 5: Laboratory Parameters before and after treatment.

Laboratory Parameters	03/01/2026(Before treatment)	14/02/2026(After treatment)
Serum cretinine (mg/dL)	4.32	1.24
eGFR (mL/min/1.73m2)	21.82	54
Serum uria(mg/dl)	82	25.03
Uric acid	7.8	6.4
Hb (g/dL)	6.8	9.7

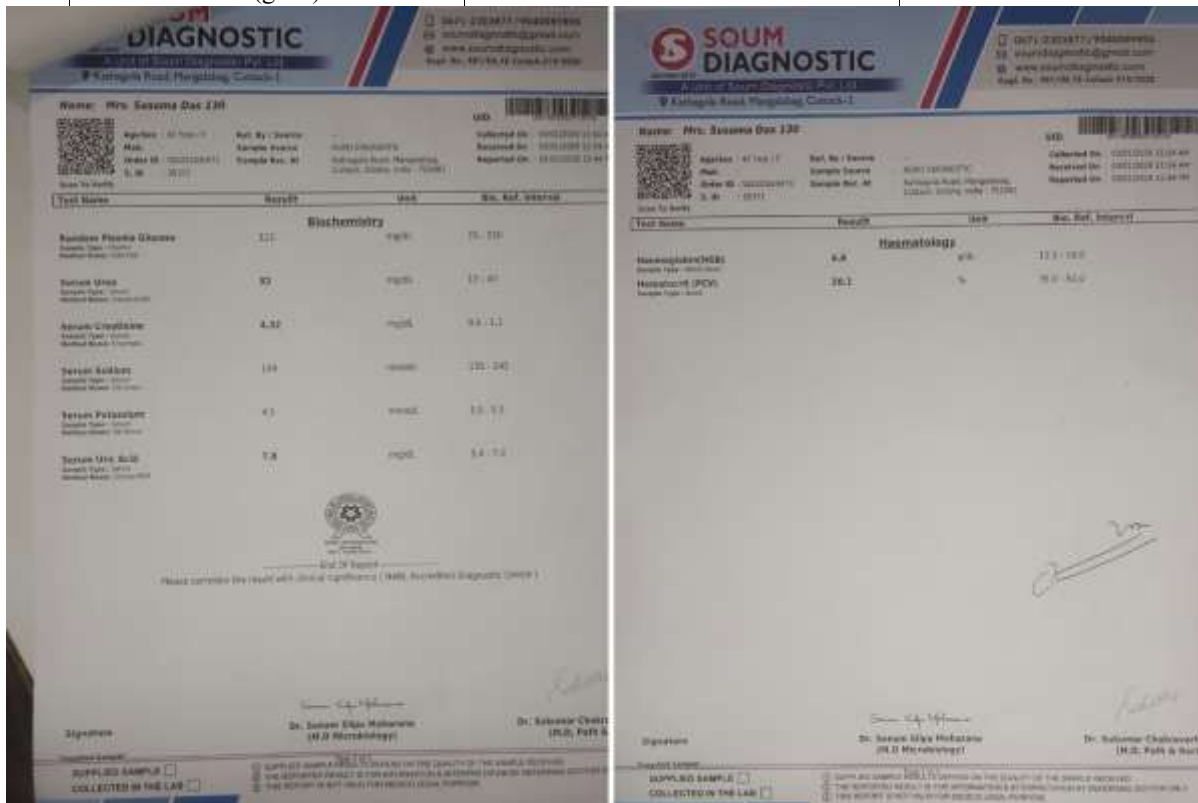


FIGURE NO-01-BEFORE TREATMENTS



DURGAMATA PATHOLAB
HOSPITAL ROAD, KALIPADA
FULLY COMPUTERISED LAB
9861373046

Name : Mrs. SUSAMA DAS
Age & Sex : 43 Years | Female
Lab Ref No : 2051
Referred by : Self

Collection Time : 14-02-2026
Receiving Time : 14-02-2026
Reporting Time : 14-02-2026

Test Name	Results	Units	Biological Ref. Interval
BIOCHEMISTRY			
UREA			
Urea Automated Spectrophotometry Based Assay.	25.03	mg/dL	10-45
Urea is the final degradation product of protein and amino acid metabolism. Catabolism of proteins and amino acids results in the formation of urea, which is predominantly cleared from the body by the kidneys. Measurement of serum urea has been used for many years as an indicator of kidney function. Uric acid is a chemical created when the body breaks down purines, which are normally produced in the body and are also found in some foods and drinks including liver, anchovies, mackerel, dried beans, peas and beer. Most uric acid dissolves in blood and travels to the kidneys and passes out in urine. If your body produces too much uric acid or does not remove enough of it, leading to hyperuricemia and can sometimes cause uric acid kidney disease.			
BIOCHEMISTRY			
S.CREATININE			
S.Creatinine	1.24	mg/dL	0.5-1.5
The Creatinine - Serum test measures the level of creatinine, a waste product produced by muscles. It helps assess how well your kidneys are functioning, as healthy kidneys filter creatinine out of the blood and excrete it in urine. Elevated levels may indicate impaired kidney function or kidney disease, making this test important for monitoring kidney health.			
HEMATOLOGY			
HEMOGLOBIN (HB)			
Hemoglobin (Hb%) Automated Cell counter by ZYBLO 23	9.7	Low g/dL	12-17

FIGURE NO-02-AFTER TREATMENTS

DISCUSSION

Effective Ayurvedic management of chronic kidney disease (CKD) involves understanding the disease (Roga), patient (Rogi), and Dosha-Dooshya involvement.

CKD, seen as a Mutravaha Srotas disorder, primarily involves Vata, with Pitta and Kapha. Treatment aims to enhance Agni (Digestive fire), balance Doshas (body humour), promote diuresis, and rejuvenate Srotas (Microchannels).^[4]

Therapeutic interventions included:

- Trinapanchamoola Kashayam
- Gokshiradi Guggulu
- Neeri KFT syrup
- Neph-X

1. Trinapanchamoola Kashayam-

Trinapanchamoola Kashaya is an Ayurvedic decoction made from five grass roots—Kusha, Kasha, Darbha, Shara, and Ikshu—traditionally used for disorders of the urinary system (Mutravaha srotas). In conditions like CKD, it is mainly valued for its mutrala (diuretic), shothahara (anti-inflammatory), and pitta-shamaka (cooling) properties. These actions help improve urine output, reduce edema, and relieve burning or irritation during urination, which are common supportive concerns in kidney disorders.

From a functional perspective, its mild diuretic effect may assist in reducing fluid overload and promoting excretion of metabolic waste, thereby offering symptomatic relief. The anti-inflammatory and antioxidant nature of its components is thought to reduce low-grade inflammation and oxidative stress in renal tissues, which are contributing factors in CKD progression.

2. Gokshiradi Guggulu-

Gokshuradi Guggulu is a classical Ayurvedic formulation used in disorders of the urinary system and is applied supportively in CKD (Mutravaha srotodushti). According to Ayurveda, CKD develops due to Kapha-Meda-Ama accumulation, leading to srotorodha (microchannel obstruction) and subsequent vitiation of Apana Vata, which impairs urine formation and filtration (reduced GFR, increased creatinine, edema). Gokshuradi Guggulu helps in samprapti vigatana through multiple actions: its components like Guggulu and Trikatu perform ama pachana and srotoshodhana, thereby clearing obstructions in renal microchannels, while Gokshura acts as a mutrala (diuretic) improving urine output and reducing fluid overload. It also exhibits shothahara (anti-inflammatory) effects that may help reduce renal inflammation and slow disease progression. Additionally, it balances Vata and Kapha, restoring normal urinary flow and correcting metabolic disturbances.

3. Neeri KFT-

Neeri KFT is a proprietary Ayurvedic formulation used as supportive therapy in CKD, composed of herbs like Punarnava, Gokshura, Varuna, Palasha, and other mutravirechaniya dravyas that act on the mutravaha srotas. In Ayurvedic terms, CKD involves Kapha-Meda-Ama accumulation leading to srotorodha (obstruction) and vitiation of Vata, resulting in impaired filtration (low GFR), fluid retention, and rise in creatinine. Neeri KFT works through mutrala (diuretic) action, improving urine output and reducing edema, while shothahara (anti-inflammatory) and antioxidant properties of herbs like Punarnava help reduce renal inflammation and oxidative stress. Its ingredients also promote srotoshodhana (channel cleansing) and mild ama pachana, which may improve microcirculation in renal tissues and support kidney function.



4.Neph X-

Neph-X is a proprietary Ayurvedic renal-support formulation (commonly containing herbs like Punarnava, Gokshura, Varuna, and other mutravirechaniya and shothahara dravyas) used as an adjunct in CKD. From an Ayurvedic perspective, CKD develops due to Kapha-Meda-Ama accumulation causing srotorodha (microchannel obstruction) in the mutravaha srotas, along with Vata vitiation, leading to reduced filtration ($\downarrow$ GFR), fluid retention, and rise in creatinine. Neph-X helps in samprapti vigatana by promoting mutrала (diuretic) action, which improves urine output and reduces edema; its herbs like Punarnava exert shothahara (anti-inflammatory) and

antioxidant effects, potentially reducing renal inflammation and oxidative stress; and the formulation supports srotoshodhana and ama pachana, helping clear microchannel obstruction and improve renal microcirculation. It also aids in balancing Vata-Kapha, thereby supporting more normal urinary function.

Pathya-Apathya(Dietary and Lifestyle Guidelines)

Based on patient's symptoms, food habits, and Dosha imbalances, appropriate Pathya (wholesome) and Apathya (unwholesome) guidelines were advised. The patient was also instructed to avoid strenuous physical activities to aid recovery and support renal function.

Table 6: Pathya Apathya

Pathya	Apathya
Vegetables - Ridge gourd, egg plant, abbage, cucumber, bittergourd, drumstick, arrot, raddish, onion, tomato, knol-khol,	Vegetables - Potato, Sweet potato, Cauliflower, Palak, spinach
Fruits - Apple, watermelon, jamun, pomogranate, custard apple, pear	Fruits - Banana, pineapple, mango, jackfruit
Ragi, red rice, barley, wheat, foxtail millet, owar (limited), white rice (limited), flax seeds, rock salt(limited), desi ghee	Refined wheat flour, fried food, deep fried food, Sugar
Water intake - not exceeding 1.5 L/day	

CONCLUSION

Based on clinical history, laboratory investigations, & presenting complaints, case was diagnosed as chronic kidney disease (CKD). The Ayurvedic treatment strategy was framed in accordance with principles of Mūtravaha Srotovikāra management, addressing vitiation of Vāta, along with associated Pitta & Kapha disturbances. The use of classical & proprietary Ayurvedic medicines, alongside tailored dietary & lifestyle modifications, resulted in marked improvement in patient's clinical condition & hematological parameters. This case highlights potential efficacy of Ayurvedic management in CKD & supports its role as complementary approach in chronic renal care.

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