

“AYURVEDIC MANAGEMENT OF CHRONIC KIDNEY DISEASE (VRUKKA ROGA): A CASE REPORT”

Dr. Sangita Sinha¹, Dr. Sushil Dwivedi², Dr. Aradhana Kande³, Dr. Rashmi Lanjhewar⁴, Dr. Shivani Gupta⁵, Dr. Gamini Singh Kanwar⁶ Dr. Durgeshwari Verma⁷

¹Post Graduate Scholar, Department of Rachana Sharir, Shri N.P.A. Government Ayurved College, Raipur, Chhattisgarh, India

²Reader, Department of Rachana Sharir, Shri N.P.A. Government Ayurved College, Raipur, Chhattisgarh, India

³Lecturer, Department of Rog Nidana Evam Vikriti Vigyana, Shri N.P.A. Government Ayurved College, Raipur, Chhattisgarh, India

⁴Post, Post Graduate Scholar, Department of Rachana Sharir, Shri N.P.A. Government Ayurved College, Raipur, Chhattisgarh, India

⁵Post Graduate Scholar, Department of Rachana Sharir, Shri N.P.A. Government Ayurved College, Raipur, Chhattisgarh, India

⁶Post Graduate Scholar, Department of Rachana Sharir, Shri N.P.A. Government Ayurved College, Raipur, Chhattisgarh, India

⁷Post Graduate Scholar, Department of Roganidana Evum Vikriti Vigyana, Shri N.P.A. Government Ayurved College, Raipur, Chhattisgarh, India.

ABSTRACT

Chronic kidney disease (CKD) is a progressive disorder characterized by a gradual decline in renal function and may lead to significant metabolic and systemic complications. Ayurveda offers a holistic approach aimed at improving symptoms and supporting renal function through individualized management.

Case Presentation: A 65-year-old male farmer from Ichalkaranji, Maharashtra, presented to Dr. Avhad's Dhanvantari Ayurvedic Super Speciality Panchakarma Hospital & Infertility Center for Ayurvedic management. He presented with complaints of pitting edema over the face and lower limbs, breathlessness, frothy urine, anorexia and constipation. The symptoms had developed progressively and prompted clinical evaluation for underlying renal dysfunction. The patient had a history of osteoarthritis and had been using analgesic medication for approximately two years. This history was considered relevant during the clinical assessment.

Intervention and Outcome: The patient received individualized Ayurvedic management and was followed clinically and through serial laboratory investigations. Progressive improvement was observed in the presenting symptoms. Blood urea decreased from 80.86 mg/dL at baseline to 39.50 mg/dL at the final follow-up, while serum creatinine decreased from 8.25 mg/dL to 2.96 mg/dL during the documented follow-up period.

Conclusion: This case highlights the potential role of individualized Ayurvedic management as a supportive therapeutic approach in CKD. However, further systematic clinical studies with larger sample sizes and standardized outcome measures are required to establish its efficacy.

KEYWORDS: Chronic Kidney Disease, Ayurveda, Ayurvedic Management, Serum Creatinine, Blood Urea, Case Report.

INTRODUCTION

Chronic Kidney Disease (CKD) is a progressive and clinically significant disorder characterized by persistent abnormalities in kidney structure or function, generally present for more than three months. It is associated with progressive decline in renal function and may lead to complications involving fluid balance, cardiovascular health, metabolism and overall quality of life. Clinical manifestations vary according to the severity of renal impairment and may include edema, alterations in urinary characteristics, anorexia, fatigue, dyspnea and other systemic disturbances. Early recognition and appropriate management are therefore important in limiting disease progression and associated complications. [1,2]

The kidneys play a fundamental role in maintaining internal homeostasis through regulation of fluid and electrolyte balance, excretion of metabolic waste products and endocrine functions. From the Ayurvedic perspective, Vrukka is described among the anatomical structures of the body, while the concept of Mutravaha Srotas encompasses the channels concerned with the formation and elimination of urine. Classical Ayurvedic texts describe Vrukka and Mutravaha Srotas in the context of Shareera Rachana and physiological functions, providing a conceptual basis for understanding disorders involving the renal and urinary system. [3–5]

Ayurveda approaches chronic disorders through an individualized assessment of Dosha, Dushya, Agni and Srotas, along with consideration of dietary and lifestyle factors. In disorders involving the urinary system, therapeutic planning may therefore focus not only on the presenting symptoms but also on the underlying pathophysiological factors and associated Srotodushti. This holistic approach may be particularly relevant in chronic conditions requiring prolonged management. Prolonged exposure to certain analgesic and non-steroidal anti-inflammatory medications has also been associated with adverse renal effects, particularly in susceptible individuals and those with pre-existing renal impairment. Therefore, a detailed drug history is clinically relevant while evaluating patients with renal dysfunction. [4,5]

Although conventional management remains essential for the appropriate monitoring and management of CKD, there is increasing interest in documenting individualized traditional medical approaches through systematically reported clinical observations. However, evidence from individual Ayurvedic case reports remains limited, and carefully documented cases may contribute to hypothesis generation and future clinical research.

The present case report describes the clinical course of a 65-year-old male with significant renal dysfunction who was managed with an individualized Ayurvedic therapeutic approach. The case documents serial clinical observations and

biochemical parameters during follow-up and discusses the observed changes from both contemporary and Ayurvedic perspectives.

2. Case Presentation

2.1 Patient Information

A 65-year-old male presented with complaints of pitting edema over the face and lower limbs, breathlessness, frothy urine, anorexia and constipation. The symptoms had developed progressively and prompted clinical evaluation for underlying renal dysfunction.

The patient had a history of osteoarthritis and had been using analgesic medication for approximately two years. This history was considered relevant during the clinical assessment.

2.2 History of Present Illness

The patient reported gradually progressive swelling over the face and lower limbs, accompanied by breathlessness and frothy urine. He also complained of reduced appetite and constipation. In view of these complaints, renal function investigations were performed.

2.3 Baseline Investigations

Parameter	Baseline value
Blood urea	80.86 mg/dL
Serum creatinine	8.25 mg/dL

These findings, together with the presenting clinical features, indicated significant renal dysfunction and prompted further Ayurvedic assessment and individualized management.

2.4 Ayurvedic Assessment

From an Ayurvedic perspective, the clinical presentation was assessed in relation to Vrukka and Mutravaha Srotas involvement. The documented clinical features were considered along with relevant Dosha-Dushya, Agni and Srotas factors for planning individualized management.

3. Therapeutic Intervention

Following the initial clinical assessment, an individualized Ayurvedic therapeutic regimen was initiated based on the patient's clinical presentation and Ayurvedic assessment. The treatment included oral Ayurvedic medications and Abhyanga with Chandana Bala Taila. Dietary regulation through Pathya-Apathya was also advised.

S.N.	Medicine	Dose	Frequency	Anupana /Route
1	Tarkeshwar Rasa	125 mg	BD	Water
2	Varunadi Kwatha	10 ml	BD	Water
3	GO-CKD	250 mg	OD	Water
4	Raktapachak Vati	250 mg	2 OD	Water
5	Suvina Vati	250 mg	BD	Water
6	Chandraprabha Vati	250 mg	BD	Water
7	Gokshuradi Guggulu	250 mg	2 BD	Water
8	Punarnava–Maka– Revanchini–Musta Kwatha	15 ml	BD	Water
9	Abhyanga with Chandana Bala Taila	As advised	-	External application

BD: twice daily; OD: once daily.

The patient was followed periodically to assess clinical symptoms and changes in renal biochemical parameters. The treatment response was evaluated on the basis of clinical observations and serial measurements of blood urea and serum creatinine.

4. Follow-up and Outcome

Assessment Date	Blood Urea (mg/dL)	Serum Creatinine (mg/dL)	Clinical Status
07/12/2023 – Baseline	80.86	8.25	Baseline
15/01/2024 – 1st Follow-up	52.70	5.98	Clinical improvement observed
20/02/2024 – 2nd Follow-up	54.00	4.32	Further clinical improvement
24/04/2024 – Final Follow-up	39.50	2.96	Marked clinical improvement

During the observation period, blood urea decreased from 80.86 mg/dL to 39.50 mg/dL, while serum creatinine decreased from 8.25 mg/dL to 2.96 mg/dL. Overall, the case demonstrated progressive symptomatic improvement along with

improvement in the documented renal biochemical parameters.

5. DISCUSSION

Chronic kidney disease (CKD) is a complex clinical condition characterized by persistent abnormalities in kidney structure or function, with important implications for overall health. Contemporary CKD evaluation is based on assessment of glomerular filtration rate (GFR), albuminuria, chronicity and underlying cause.[1] In the present case, the patient presented with facial and lower-limb pitting edema, breathlessness, frothy urine, anorexia and constipation, with markedly elevated serum creatinine (8.25 mg/dL) and blood urea (80.86 mg/dL).

From an Ayurvedic perspective, the clinical presentation was interpreted in relation to Vrukka, Mutravaha Srotas, Dosha-Dushya involvement, Agni disturbance and impaired physiological elimination rather than directly equating CKD with a single classical disease entity. The therapeutic approach was therefore individualized according to the patient's presenting features and presumed pathophysiological involvement.

The patient was managed with Tarkeshwar Rasa, Varanadi Kashaya, GO-CKD, Raktapachak Vati, Suvina Vati, Chandraprabha Vati, Gokshuradi Guggulu, Punarnava–Maka–Revanchini–Musta Kwatha, Abhyanga with Chandana Bala Taila and appropriate Pathya-Apathya. The rationale of this multimodal approach was to address urinary function, fluid accumulation, digestive and metabolic disturbances, and associated symptoms. Similar multimodal Ayurvedic management incorporating Gokshuradi Guggulu, Varunadi Kwatha and Punarnavadi Kwatha has previously been evaluated in patients with chronic renal failure, with reported reductions in serum creatinine, blood urea and urinary albumin.[2] However, because multiple interventions were used simultaneously, these findings cannot establish the independent efficacy of any single formulation.

Gokshuradi Guggulu, Varunadi -type formulations and Punarnava-containing preparations have traditionally been used in Ayurvedic practice in disorders involving Mutravaha Srotas and fluid accumulation.[2] Chandraprabha Vati is a classical herbo-mineral formulation traditionally described in relation to Mootrakrichhra and urinary-system disorders.[3] In the present case, these formulations were used as components of the individualized therapeutic regimen. Suvina Vati was included with the therapeutic intention of supporting Deepana-Pachana and Amapachana. Tarkeshwar Rasa was also included as part of the individualized regimen; available research on Tarkeshwar Rasa primarily concerns its pharmaceutical characterization rather than clinical efficacy in CKD.[4] GO-CKD and Raktapachak Vati were similarly prescribed as components of the overall treatment protocol. Since multiple formulations were administered concurrently, the observed clinical and biochemical changes cannot be independently attributed to any particular medicine.

Abhyanga with Chandana Bala Taila was incorporated as supportive external therapy. Its inclusion was based on the traditional rationale of external oleation and supportive management of Vata-associated symptoms. However, its independent contribution to renal biochemical outcomes cannot be determined from the present case.

The patient also had a history of osteoarthritis and prolonged analgesic use. Long-term or excessive use of NSAIDs is recognized as a potential renal risk because inhibition of renal prostaglandin synthesis can adversely affect renal haemodynamics, particularly in susceptible individuals.[5] However, in the present case, previous analgesic exposure should be considered a possible contributing factor rather than a proven cause of CKD because detailed longitudinal renal records and definitive etiological evaluation were unavailable.

Following treatment, the patient reported improvement in frothy urine, anorexia and constipation, while edema and breathlessness also improved. Biochemically, serum creatinine decreased from 8.25 mg/dL to 2.96 mg/dL, while blood urea decreased from 80.86 mg/dL to 39.50 mg/dL. These changes indicate clinically relevant improvement during the observation period. Nevertheless, improvement in serum creatinine and blood urea alone is insufficient to establish recovery of CKD or reversal of structural renal disease.

According to contemporary CKD guidelines, assessment and staging require appropriate evaluation of eGFR and albuminuria, together with consideration of chronicity and underlying cause.[1] Since serial eGFR, urine albumin-to-creatinine ratio and other detailed renal parameters were not available in the present case, a retrospective CKD stage should not be assigned solely on the basis of serum creatinine values.

The major limitation of this report is its single-case, uncontrolled nature. Furthermore, multiple Ayurvedic interventions, dietary advice and supportive measures were administered simultaneously, making it impossible to determine the independent contribution of individual medicines or therapies. Natural variation in laboratory parameters and other unmeasured factors may also have contributed to the observed changes. Therefore, the present findings should be considered hypothesis-generating rather than proof of therapeutic efficacy.

Overall, this case documents symptomatic improvement accompanied by a substantial reduction in serum creatinine and blood urea following an individualized Ayurvedic multimodal intervention. The findings provide a basis for further investigation but do not establish causality or efficacy of the individual interventions. Prospective controlled studies with standardized treatment protocols, eGFR, albuminuria, renal imaging where appropriate, longer follow-up and clearly defined outcome measures are required to evaluate the potential role of Ayurvedic interventions in CKD.

6. CONCLUSION

The present case documents symptomatic and biochemical improvement in a 65-year-old male with significant renal dysfunction during individualized Ayurvedic management. A progressive reduction in serum creatinine and blood urea was observed along with improvement in the presenting clinical features during follow-up.

From an Ayurvedic perspective, the case was assessed in relation to Vrukka and Mutravaha Srotas, with treatment planned according to the patient's clinical presentation. However, as this was a single uncontrolled case involving multiple therapeutic interventions, the observed improvement cannot be considered definitive evidence of treatment efficacy or

establish a causal relationship.

This case highlights the importance of systematic documentation of Ayurvedic clinical management in chronic renal disorders and provides a basis for further research. Prospective controlled studies with standardized interventions, objective renal-function assessment and adequate long-term follow-up are required to determine the safety and clinical effectiveness of Ayurvedic management in CKD.

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