World Journal of Pharmaceutical and Life Sciences
WJPLS
www.wjpls.org
SJIF Impact Factor: 7.409

COMPREHENSIVE APPROACH ON INTEGRATIVE *AYURVEDIC* STRATEGIES IN CHRONIC KIDNEY DISEASE: A CASE REPORT

Acharya Manish Ji[1], Dr. Gitika Chaudhary[2]*, Dr. Richa[3], Dr. Suyash Pratap Singh[4] and Dr. Manjeet Singh[5]

[1]Director, Meditation Guru, Jeena Sikho Lifecare Limited.
[2]Senior Consultant, General Surgeon, BAMS, PGDIP, PGDGS, MS (Ay.), Jeena Sikho Lifecare Limited.
[3]Research Officer, BAMS, PGDIP, CICR, CAIM, Jeena Sikho Lifecare Limited Hospital, Derabassi.
[4]Consultant, BAMS, PGDIP, DNYT, CCMC, Jeena Sikho Lifecare Limited Hospital, Derabassi.
[5]Consultant, BAMS, PGDIP, ACLS, CCDN, CAIM, Jeena Sikho Lifecare Limited Hospital, Derabassi.

***Corresponding Author: Dr. Gitika Chaudhary**
Senior Consultant, General Surgeon, BAMS, PGDIP, PGDGS, MS (Ay.), Jeena Sikho Lifecare Limited.

Article Received on 13/04/2025 **Article Revised on 04/05/2025** **Article Accepted on 24/05/2025**

ABSTRACT

Kidney diseases are categorized under *Bastirog* or *Maha Marma* (vital organs) in *Ayurveda* and are recognized for their *Kashtasadhyatva* (poor prognosis). The structural and functional components of *Vrikka* (kidneys) are nourished by *Rakta* (blood) and *Meda* (fat tissue), forming the basis of *Medovahasrotas* (fat-metabolic channels). Chronic Kidney Disease (CKD), considered an *Anukta Vikara* (non-specific disease) in *Ayurveda*, commonly arises from underlying conditions such as obesity, hypertension, and diabetes mellitus, compounded by polypharmacy. CKD is a global noncommunicable health issue with a progressive course that often leads to End-Stage Renal Disease (ESRD) requiring Renal Replacement Therapy (RRT). Dietary and metabolic imbalances, including excess fluid intake, overly dry foods with antinutrient loads (*Ati-Rookshanna*), unctuous (*AtiSnigdha*) and heat-inducing (*Ushna*) foods, and synthetic protein supplements or processed non-vegetarian diets (*Vidahi*), are critical contributors to *Rakta* and *Medovaha srotas Dushti* (pathology of circulatory and fat-metabolic channels). Such factors precipitate nephron damage, perpetuating disease progression. Despite modern interventions involving dietary modifications and dialysis, CKD often remains a therapeutic challenge. A 28-year-old female with a history of CKD stage V presented with generalized weakness, appetite loss, nausea, and vomiting, along with significantly elevated serum urea and creatinine levels. She underwent comprehensive *Ayurvedic* management, including a personalized treatment protocol, a modified dietary regimen, and lifestyle interventions. The treatment resulted in symptomatic relief and a significant reduction in urea and creatinine levels, highlighting the efficacy of the integrative approach. This case report underscores the potential of *Ayurveda* in managing CKD by addressing *Srotodushti* (channel dysfunction) and facilitating renal repair through holistic and individualized care.

KEYWORDS: Chronic Kidney Disease (CKD), *Rakta* and *Medovaha srotas Dushti*, *Srotodushti*, *Ayurvedic* Management, *Vrikka vikar.*

INTRODUCTION

The burden of chronic kidney disease (CKD) is growing rapidly around the world. However, there is limited information on the overall regional prevalence of CKD, as well as the variations in national prevalence within India. Chronic kidney disease (CKD) is a condition marked by the gradual decline of kidney function over time, which can lead to severe health complications, including progression to end-stage renal disease (ESRD) if left untreated. Recent studies indicate that the prevalence of CKD in India ranges from 10% to 13% among adults.[1]The incidence of ESRD requiring renal replacement therapy is estimated at approximately 232 cases per million population annually. This underscores the increasing burden of CKD in India, driven by factors such as diabetes, hypertension, and other chronic diseases.[2]

The progression of renal injuries can be effectively mitigated by adopting *Ayurvedic* principles aimed at normalizing serum urea and creatinine levels while preserving renal mass through a balanced differentiation of *Sara* (nourishment) and *Kitta* (metabolic waste). The primary prevention of hemodynamic injuries, barotrauma, and nutritional imbalances can be achieved through the systematic application of the Gravitational

Resistance and Diet (GRAD) system.[3] This system integrates core *Ayurvedic* principles of renal health, emphasizing Head Down Tilt (HDT), Hot Water Immersion (HWI), and the Disciplined and Intelligent Person's Diet Plan (DIP)diet. The principles of *Santarpana* (nourishing therapies) and *Apatarpana* (depleting therapies) are applied in alignment with the stage and condition of the disease, ensuring optimal nutritional assimilation and digestion. This approach aids in maintaining renal integrity, delaying the need for dialysis, and potentially averting renal replacement therapy (RRT). The Disciplined and Intelligent Diet Plan (DIP)diet serves as a structured framework for renal-friendly nutrition, integrating functional food strategies and personalized counselling.[4] This cost-effective and pragmatic approach facilitates the management of CKD and its associated complications, offering sustainable therapeutic benefits to patients.

CASE REPORT

A 28-year-old Female patient with a known history of chronic kidney disease (CKD) stage V presented to Jeena Sikho Lifecare Ltd. Hospital, Dera Bassi, Chandigarh, on June 13, 2024. The patient reported a six-month history of CKD. Her presenting complaints included generalized weakness, loss of appetite, persistent nausea, frothy urine and episodes of vomiting, reflecting the progressive nature of his condition.

Table 1: Examination Findings on the day of admission.

Parameter	Findings
Blood Pressure	**100/60 mm of Hg**
Pulse Rate	**92/min**
Weight	37.5 kg
CNS	Conscious, Oriented to time, place and person.
Nadi	*Pittaj Vataj*
Mala	*Malavashtambha* (constipation)
Mutra	*Safena*
Jivha	*Saam* (coated)
Shabda	*Spashta*
Sparsha	*Anushna Sheeta*
Akriti	*Krisha*
Drik	*Avikrita*
Kshudha	*Alpa*
Agni	*Manda*
Nidra	*Samanya*

The laboratory findings obtained on the day of admission, June 13, 2024, are detailed in Table 2.

Table 2: Laboratory Investigations on the Day of Admission (June13, 2024).

Laboratory Test	Observed Value
Blood Count	
Haemoglobin	**7.8 g/dl**
Total Leucocyte Count	6000/ Cu mm
RBC	**2.68 Mill. /Cumm**
Platelet Count	**1.00 Lacs/Cumm**
Renal Function Test	
Blood Urea	**65.00 mg/dl**
Serum Creatinine	**7.15 mg/dl**
Serum Uric Acid	**10.12 mg/dl**
Electrolytes	
Sodium Na^+	141.2 mEq/L
Potassium K^+	4.79 mEq/L
Chloride Cl^-	105.6 m Eq/L
Liver Function Test	
Bilirubin Direct	0.26 mg/dl
Bilirubin In Direct	0.33 mg/dl
Bilirubin Total	0.59 mg/dl
ALT/SGPT	36.95 IU/L
AST/SGOT	**40.99 IU/L**
Alkaline Phosphate	**329.54 U/L**
Albumin	3.54 g/dl

Globulin	2.58 g/dl
Total Protein	**6.12 g/dl**
A/G Ratio	1.37
Urine Protein	**Trace**
Glomerular Filtration Rate (eGFR)	
eGFR	**7 ml/min/1.73m2**
Immunology- Serology	
HIV I & HIV II Antibody	Non- Reactive
HCV Antibody	Non- Reactive
Hepatitis B Surface Antigen	Non- Reactive
Hepatitis C Virus Antigen	Non- Reactive
Intact Parathyroid Hormone (iPTH)	
iPTH	412.50 pg/ml
Lipid Profile	
Total Cholesterol	130.44 mg/dl
HDL Cholesterol	31.02 mg/dl
Triglycerides	131.12 mg/dl
LDL Cholesterol	73.20 mg/dl
VLDL Cholesterol	26.22 mg/dl
Chol/HDL Ratio	4.21

The patient underwent DTPA renal scan, the findings of which are detailed in Table 3.

Table 3: DTPA Scan Report done on June 15, 2024.

	Left Kidney	**Right Kidney**
Visualization	Poor	poor
Relative Perfusion	Poor	poor
Size	Shrunk	shrunk
Shape	Normal	normal
Position	Normal	normal
Concentration	Poor	Poor
Cortical Margin Delineation	Poorly defined	Poorly defined
Split Function	60.0%	40.0%
Collecting system	Dilated	dilated
Drainage pattern	Non-obstructed	Non-obstructed
Diuretic response	Normal	normal
Ureter	Normal	Normal
GFR	9.0 ml/min	6.0 ml/min
Global GFR	15.0 ml/min/1.27 sq m BSA	

The patient underwent a tailored *Panchakarma* treatment protocol, which included therapies such as *Awagaha Swedana* (medicated tub bath), *Siddha Sneha Basti* (therapeutic enema with medicated oils), *Kashay Basti* (decoction-based enema), *Shiropichu*, *Shiroabhyanga* and *Shirodhara* therapy was performed using *Brahmi Taila* (medicated oil). Alongside these detoxification therapies, the patient was prescribed Head-Down Tilt therapy, *Ayurvedic* medications, and customized dietary and lifestyle modifications to enhance therapeutic outcomes.

The patient exhibited significant clinical improvement, including alleviation of symptoms such as generalized weakness, nausea, vomiting, and body pain. Following this progress, the patient was discharged on June 19 2024, with substantial symptomatic recovery. Laboratory investigations demonstrated reductions in serum urea and creatinine levels, reflecting improved renal function. Upon discharge, the patient was advised to continue prescribed medications as part of the ongoing management plan to sustain recovery and prevent disease progression. Follow-up investigations were conducted to monitor the patient's progress, with the results summarized in Table 4.

Table 4: Follow-Up Investigations and Results.

Laboratory test	13/06/2024	18/06/2024	06/07/2024	21/07/2024
Haemoglobin	7.8 g/dl	6.4 g/dl	8.4 g/dl	-
Urea	65 mg/dl	59.33 mg/dl	-	46.83 mg/dl
Creatinine	7.15 mg/dl	6.71 mg/dl	4.8 mg/dl	4.90 mg/dl
Uric Acid	10.12 mg/dl	6.14 mg/dl	-	3.44 mg/dl
Na+	141.2 mEq/L	141.5 mEq/L	136 mEq/L	142.5 mEq/L
K+	4.79 mEq/L	4.83 mEq/L	4.4 mEq/L	4.65 mEq/L
Cl-	105.6 mEq/L	105.7 mEq/L	-	104.9 mEq/L

TREATMENT PLAN

I. Diet Plan

The patient's dietary regimen at Jeena Sikho Lifecare Ltd Hospital, Dera Bassi, was carefully designed to support recovery and optimize renal function.[5]Key elements include:

1. Foods to Avoid

- Eliminate wheat, processed and refined foods, dairy products, animal-based products, coffee, and tea. Patients are advised not to consume food after 8:00 PM.

2. Hydration Guidelines

- Consume alkaline water 3–4 times daily, supplemented with herbal teas, structured ("living") water, and turmeric-infused water. Limit total daily fluid intake to 1.5 Liters.

3. Inclusion of Millets

- Integrate five types of millets into meals: foxtail, barnyard, little, kodo, and browntop millets. Cooking should be done exclusively in stainless steel utensils to retain nutritional integrity.

4. Meal Timing and Meal Structure as per Disciplined and Intelligent Diet Plan (DIP)[6]

- **Early Morning (5:45 AM):** Curry leaves and herbal tea. Raw ginger and raw turmeric for chewing.
- **Breakfast (9:00–10:00 AM):** Plate 1 with assorted Seasonal Steamed fruits (grams equivalent to 10× the patient's weight) paired with steamed sprouts and Fermented millet shake (4 to 5 types).
- **Morning Snacks (11:00 AM):** Red juice 150 ml.
- **Lunch (12:30–2:00 PM):** Plate 1 with a steamed vegetable salad or sprouts and Plate 2 with a millet-based dish. Steamed salads (grams equivalent to 5× the patient's weight) alongside cooked millet dishes.
- **Evening Snacks (4:00–4:20 PM):** Green juice (100 ml to 150 ml), soaked Almonds in water (4-5).
- **Dinner (6:15–7:30 PM):** Steamed salad with chutney, soup and Millet khichdi.

5. Periodic Fasting

- Engage in fasting once every 3–4 days to aid in metabolic reset and detoxification.

6. Special Practices

- Express gratitude before every meal. Post-meal, sit in *Vajrasana* (a meditative pose) to enhance digestion.

7. Dietary Variations

- Meals encompass solid, semi-solid, and liquid preparations, avoiding added salt. Recommended items include herbal tea, red vegetable juices, steamed fruits, fermented millet beverages, steamed sprouts, soaked almonds, and steamed salads.

II. Lifestyle Recommendations[3]

- **Sunlight Exposure:** Spend 30 minutes each morning in natural sunlight to promote vitamin D synthesis and enhance overall well-being.
- **Yoga Practice:** Dedicate one hour daily, from 6:00 to 7:00 AM, to yoga sessions (*Sukhasana* and *Sukshama Pranayama)* focusing on improving flexibility, strength, and mental clarity.
- **Mindfulness Meditation:** Incorporate meditation into your daily routine to manage stress levels effectively and foster mental tranquillity.
- **Grounding Walks:** Engage in a brisk 30-minute walk each day, preferably barefoot on natural surfaces such as grass, to boost circulation and reconnect with the earth.
- **Sleep Hygiene:** Maintain a routine of 6 to 8 hours of quality sleep every night to support physical restoration and mental rejuvenation.
- **Structured Daily Routine:** Adhere to a consistent schedule that balances meal timings, physical activities, and relaxation to optimize health and harmony.

III. *Panchakarma* Procedures Administered to the Patient

1. *Awagaha Swedana* upto Navel

Procedure

The patient immerses in a tub filled with warm water (maintained at 42°C) infused with medicinal herbs, for 30–60 minutes, stimulating perspiration.

Physiology

The heat from the water dilates blood vessels, enhancing blood flow and facilitating the elimination of toxins through sweat. Simultaneously, the therapeutic properties of the infused herbs are absorbed transdermally, contributing to systemic benefits.

Mechanism of Action
The thermal effect promotes vasodilation, accelerates metabolic processes, and aids in breaking down fat deposits. This, in turn, supports the excretion of metabolic waste products such as urea and creatinine via sweat glands.

Duration
The therapy is administered for 7 days as part of the treatment plan.

2. *Gokshura* and *Punarnava Siddha Sneha Basti* and *Guduchi Kashay Basti* on alternate day

i. Gokshura* and *Punarnava Siddha Sneha Basti

Procedure
Warm medicated oil prepared with *Gokshura* and *Punarnava Siddha Sneha* (90 ml)is administered rectally while the patient is positioned comfortably. The oil is retained for a specific duration, allowing optimal therapeutic action.

Physiology & Mechanism of Action: The medicated oil penetrates the rectal mucosa, facilitating absorption, lubricating the gastrointestinal tract, and supporting smooth bowel movements. *Matra Basti* helps to balance *Vata Dosha*, enabling the elimination of gas, stool, and urine while improving systemic *Vata* function. Once absorbed, the oil circulates throughout the body, pacifying aggravated *Vata* and delivering both localized and systemic therapeutic effects.

Therapeutic Benefits of Key Ingredients
1. ***Gokshura*:** Renowned for its diuretic and anti-inflammatory properties, it supports urinary function, balances the three *Doshas* (*Vata*, *Pitta*, and *Kapha*), and enhances metabolic processes.

गोक्षुरः शीतलः स्वादुः बलकृत्बस्तिशोधनः मधुरोदीपनोवृष्यः हृष्टिदचअश्मरीहरः प्रमेहश्वासकासार्थ, कृच्छहृद्रोगवातनुत् (**भावप्रकाश**)[7]

2. ***Punarnava:*** Known for its anti-inflammatory action, it promotes kidney health, aids in detoxification, reduces fluid retention, and supports the excretion of metabolic waste products.

This treatment provides a comprehensive approach to improve renal and urinary health while addressing systemic imbalances through the principles of *Ayurveda*.

ii. Guduchi Kashaya Niruha Basti

Procedure
- A decoction is prepared using *Guduchi* (*Tinospora cordifolia*), *Arjuna* (*Terminalia Arjuna)* and other *ayurvedic* herbs, strained carefully to ensure purity and therapeutic efficacy.
- The warm decoction i.e. 350 ml is then administered rectally while the patient is in a comfortable position.
- The decoction is retained for a specified period to allow maximum absorption and therapeutic action.

Physiology & Mechanism of Action: *Guduchi Kashaya Niruha Basti* acts primarily on the *Pakwashaya* (large intestine), addressing the imbalanced *Vata Dosha* at its origin. This method aligns with the principle of nurturing the body by addressing the root cause, akin to nourishing a tree by watering its roots. The active compounds in the decoction are distributed throughout the body via the *Srotas* (channels), facilitated by the *Samana* and *Apana Vayu* subtypes of *Vata*. This systemic action balances *Vata*, harmonizes metabolic processes, and supports overall vitality.

Therapeutic Benefits of *Guduchi* and Other Ingredients
- ***Guduchi*:** Renowned for its immunomodulatory and anti-inflammatory properties, it strengthens the body's defence mechanisms, aids detoxification, and promotes tissue rejuvenation.
- ***Kashaya:*** Complementary herbs provide a synergistic effect, supporting kidney function, enhancing metabolic detoxification, and managing inflammation and fluid retention.

3. *Shiropichu* and *Shiroabhyanga* with *Brahmi Taila* and *Shirodhara* on Alternate Day

Procedure
- ***Shiropichu*:** A cotton pad soaked in warm *Brahmi Taila* is placed on the scalp and retained for a specific duration to allow the oil to penetrate.
- ***Shiroabhyanga:*** Warm *Brahmi Taila* is gently massaged onto the scalp, neck, and shoulders for 20–30 minutes to promote relaxation and stimulate circulation.
- ***Shirodhara:*** Warm *Brahmi Taila* is continuously poured in a steady stream over the forehead (particularly on the *Ajna Chakra* region) for a specified duration, alternating with other therapies every other day.
- **Physiology and Mechanism of Action:** These therapies collectively enhance blood circulation and lymphatic drainage of the head and neck region, facilitating nutrient supply and toxin removal. The increased lymphatic flow stimulates the pineal gland, elevating plasma tryptophan levels, and promoting the secretion of melatonin and serotonin. It reduces headache and heaviness of the head. This process induces deep relaxation, improves sleep patterns, stabilizes mood, and enhances overall mental and physical well-being.

Benefits of *Brahmi* Oil
- Known for its adaptogenic and rejuvenating properties, *Brahmi Taila* calms the nervous system, enhances cognitive functions, alleviates stress, and supports mental clarity.

IV. Head Down Tilt Therapy

As part of the Gravitational Resistance and Diet (GRAD) protocol, the patient was instructed to practice Head Down Tilt (HDT) therapy.[8] In this technique, the individual lies down at a 10-degree incline with the head positioned lower than the feet. This posture helps reduce the levels of plasma aldosterone and renin hormones, effectively decreasing total plasma volume. The resultant physiological adjustment facilitates increased natriuresis, promoting the elimination of sodium from the body and supporting overall metabolic balance.

V. Medicinal Intervention

The *Ayurvedic* management for this case incorporated a blend of *ayurvedic* formulations, including *Chitrakadi Vati*, *GFR Powder*, *Chander Vati*, *CKD Tab*, *Ge Liv Forte Syp*, and *Divya Shakti Powder*. These were complemented by *Panchakarma* therapies to enhance therapeutic efficacy. A detailed account of these medications, including their constituents, prescribed dosages, duration of administration, and targeted therapeutic effects, is presented in Table 4.

Table 4: *Ayurvedic* Medications, Composition, Dosage, Duration, and Therapeutic Benefits in the Management of CKD.

Medicine Name	Ingredients	Dosage	Therapeutic Effects
CKD TAB	Pashanbhed *(Brgenialigulata),*Varun(*Crateva religiosa*), Punarnava (*Boerhaviadiffusa*), Gokhru (*Tribulus terrestris*), Apamarg (*Achyranthes aspera*), Haldi (*Curcuma longa*), Charila (*Parmeliaperlata*), Kulthi *(Macrotylomauniflorum),* Harad (*Terminalia chebula),* Bhumiamla *(Phyllanthusniruri),*Giloy *(Tinospora cordifolia),* Shitalchini *(Piper cubeba*), Anantmool (*Hemidesmusindicus)* Khas (*Chrysopongonzizanioides),* Yava Kshar (*Hordeum vulgare*), MuliKshar Kalmi Shora (Potassium nitrate),SajjiKhar, Shilajit (Asphaltum punjabianum), HajralYahud (Lapis judacius), Shwet Parpati	2 tablets BD *(Adhobhakta* with *Koshna Jala)*	Supports renal function, reduces inflammation, promotes diuresis, aids detoxification, balances electrolyte levels
GFR Powder	Bhoomi amla (*Phyllanthus fraternus*), Badi harad (*Terminalia chebula*), Bahera (*Terminalia belerica*), Kasni*(Cichorium lendivia*), Makoy*(Solanum nigrum*), Punarnava *(Boerhaavia diffusa*), Gokhru (*Tribulus terrestris*)	Half a teaspoon BD *(Adhobhakta* with *Koshna Jala)*	Supports kidney function and reduces inflammation, helping with renal symptoms.
Chander Vati	Kapoor Kachri (*Hedychium spicatum*), Vacha (*Acorus calamus*), Motha (*Cyperus rotundus*), Kalmegh (*Andrographis paniculata*), Giloy (*Tinospora cordifolia*), Devdaru (*Cedrus deodara*), Desi Haldi (*Curcuma longa*), Atees (*Aconitum heterophyllum*), Daru Haldi (*Berberis aristata*), PiplaMool (*Piper longum* root), Chitraka (*Plumbago zeylanica*), Dhaniya (*Coriandrum sativum*), Haritaki (*Terminalia chebula*), Bahera (*Terminalia bellirica*), Amla (*Phyllanthus emblica*), Chavya (*Piper chaba*), Vayavidang (*Embeliaribes*), Pippal (*Piper longum*), Kalimirch (*Piper nigrum*), Sonth (*Zingiber officinale* dried ginger), Gaj Pipal (*Scindapsus officinalis*), Swarn Makshik Bhasma, Sujji Kshar, Senda Namak, Kala Namak, Choti Elaichi (*Elettaria cardamomum*), Dalchini (*Cinnamomum verum*), Tejpatra (*Cinnamomum tamala*), Danti (*Baliospermummontanum*), Nishothra (*Operculinaturpethum*), Banslochan (Bamboo silica), Loh Bhasam, Shilajit (*Asphaltumpunjabinum*), Guggal (*Commiphora wightii*).	2 tablets BD *(Adhobhakta* with *Koshna Jala)*	Alleviates urinary tract symptoms and promotes healthy urine flow.
Ge. Liv forte	Bhringraj*(Ecliptaprostata*), Kachri *(Cucumis callosus),*Kalmegh*(Andrographicspaniculata*), Kutki (*Picrorhizakurrooa*), Vidanga *(Embiliaribes*), Nisoth (*Operculinaturpethum),* Daruharidra*(Berberisaristata),* Chitrak, Mool*(Plumbago indica),* Bhumi Amla *(Phyllanthusniruri)*	20 ml BD (*Adhobhakta* with *samamatra Koshna Jala*)	Supports liver detoxification, enhances metabolism,and promotes the overall health of renal and hepatic systems
Chitrakadi Vati	Chitrak *(Plumbago zeylanica*), Pippali*(Piper longum*), Pippalimoola (*Piper longum root*), (Chavya (*Piper retrofractrum),*Hingu (F*errulanarthex*), Ajamoda (*Apium graveolens*), Saindhava Lavana (Sodium chloride), Samudra	2 tablet TDS for chewing*(Pragbhakta* with *koshn ajala)*	Improves digestive function, reduces Ama (toxins), enhance metabolism.

	Lavana, Vida Lavana (Ammonium chloride), Sauvarchala Lavana (Sodium chloride), Yavakshara, Surya Kshara, Haritaki (Terminalia chebula), Shunthi (*Zingiber officinalis*), Maricha (*Piper nigrum)*		
Sama vati	Vidarikand (*Pueraria tuberosa*), Beej Band Lal, (*Sidacordifolia*),Akarkara, *(Anacyclyuspyrethrum),*Talmakhana *(Asteracantha longifolia*), Musli (*Asparagus adscendens*), Aawla (*Emblicaofficinale*), Sonth *(Zingiberofficinale),*Jaiphal *(Myristicafragrans),* Swarn makshik (*Copper pyrite*), Shilajitshudh (*Asphaltumpanjabinum*), Kaunch (*Mucunaprurita*), Shatavari (*Asparagusracemosus*), Ashwagandha (*Withaniasomnifera*)	2 tablets BD *(Adhobhakta* with *Koshna Jala)*	Aids in digestion and alleviates constipation.
Divya Shakti Powder	Trikatu, Triphala, Nagarmotha (*Cyperus rotundus*), Vay Vidang (*Embeliaribes*), Chhoti Elaichi (*Elettaria cardamomum*), Tej Patta (*Cinnamomum tamala*), Laung (*Syzygium aromaticum*), Nishoth (*Operculinaturpethum*), SendhaNamak , Dhaniya (*Coriandrum sativum*), PiplaMool (*Piper longum* root), Jeera (*Cuminum cyminum*), Nagkesar (*Mesua ferrea*), Amarvati (*Achyranthes aspera*), Anardana (*Punica granatum*), Badi Elaichi (*Amomum subulatum*), Hing (*Ferulaassafoetida*), Kachnar (*Bauhinia variegata*), Ajmod (*Trachyspermumammi*), Sazzikhar, Pushkarmool (*Inula racemosa*), Mishri (*Saccharum officinarum*).	Half a teaspoon HS *(Nisha kala with Koshna Jala)*	Enhances overall vitality and energy levels, addressing fatigue and weakness.
Kidney Care BLK	Punarnavarishta*(Boerhaaviadiffusalinn*),Chandanasava*(Santalu malbum),* Ushirasava*(Vetiveriazizanioides*), GokshuradiKadha (*Tribulus terrestris*)	20 ml BD*(Adhobhakta* with *samamtra Koshna Jala)*	Enhancesdiuresis,main tains urinary tract health,
Liv DS Capsules	Bhumiamla Ext. (*Phyllanthus niruri)*, Kasani Ext (*Cichorium intybus*), Himsra *(Capparis spinosa*), Punarnava Ext. (*Boerhaviadiffusa)*, GuduchiExt *(Tinosporacordifolia).*, Kakamachi (*Solnum nigrum*), Arjuna *(Terminalia arjuna*) , Kasamarda (*Cassiaoccidentalis*), Jhavuka *(Tamarixgallica*), Vidanga (*Embeliaribes*), Chitraka *(Plumbagozeylanica)*, Kutki (*Picrorhizakurrooa),* Haritaki (*Terminalia chebula),*Bhringraj (*Ecliptaprostata)*	2 Cap. BD *(Adhobhakta* with *Koshna Jala)*	Reduces oxidative stress, enhances metabolism, supports liver and renal detoxification
Dhatuposh ak Cap	Chuna*(Lime),* Shankh Bhasam *(Turbinellapyrum*), Mukta Shukti (*Pearl oyster*), Prawal Pishti *(Corrallium rubrum),* Kapardika (*Cypreamontea*), Loh (*Ferrum)*	2 Cap BD *(Adhobhakta* with *Koshna Jala)*	Strengthens the body, manage nutritional deficiencies
Arogya vati	Loh Bhasma (*Elemental iron),*Abhrak Bhasma (*Alkaline mica,)*Tamra Bhasma (*Elemental copper*), Amalaki (*Emblica officinalis*), Vibhitaki *(Terminiliabelerica*), Haritaki *(Terminalia*chebula), Chitrak (*Plumbago zeylanica*), Kutki (*Picorhizakurroa),* Nimba patra *(Azadirachta indica)*	2 Tab. BD *(Adhobhakta* with *Koshna Jala)*	Strengthens tissue health and reduce oxidative stress

The medications provided to the patient during hospitalization, at the time of discharge, and follow-up are outlined in Table 5.

Table 5: Medications Administered During Hospitalization, at Discharge, and on Follow-up.

Medicine	**Dosage**
Medicine during patient's hospitalization	
CKD TAB	2 tablets BD *(Adhobhakta* with *Koshna Jala)*
GFR Powder	Half a teaspoon BD *(Adhobhakta* with *Koshna Jala)*
Chander Vati	2 tablets BD *(Adhobhakta* with *Koshna Jala)*
Ge. Liv forte	20 ml BD *(Adhobhakta* with *sama matra Koshna Jala)*
Chitrakadi Vati	2 tablet TDS for chewing *(Pragbhakta)*
Medicine given on discharge	
GFR powder	Half Tsp BD *(Adhobhakta* with *Koshna Jala)*
Chander Vati	2 Tab. BD *(Adhobhakta* with *Koshna Jala)*
DS powder	Half Tsf HS (*Nisha kala* with *Koshna Jala)*
Sama Vati	2 Cap BD *(Adhobhakta* with *Koshna Jala)*

Kidney Care BLK	20 ml BD*(Adhobhakta* with *sama matra Koshna Jala)*
Liv DS	2 Cap. BD *(Adhobhakta* with *Koshna Jala)*
Follow-up on 21/07/2024: Medications were given as follows	
Sama Vati	2 Cap BD *(Adhobhakta* with *Koshna Jala)*
Dhatuposhakvati	2 Cap BD*(Adhobhakta* with *Koshna Jala)*
Chander Vati	2 Tab. BD *(Adhobhakta* with *Koshna Jala)*
Arogya vati	2 tab BD *(Adhobhakta* with *Koshna Jala)*
GFR powder	Half Tsf BD *(Adhobhakta* with *Koshna Jala)*

RESULT

The comprehensive *Ayurvedic* management protocol implemented for the patient with Chronic Kidney Disease (CKD) stage V yielded significant symptomatic and investigational improvements over the treatment period.

Symptomatic Improvement:

Upon initiation of the treatment regimen, the patient presented with a range of debilitating symptoms, including generalized weakness, persistent nausea, vomiting, and loss of appetite. Following the administration of tailored *Panchakarma* therapies, including *Awagaha Swedana*, *Siddha Sneha Basti*, and *Kashaya Basti*, alongside a structured dietary and lifestyle modification plan, the patient exhibited marked symptomatic relief.

By the end of the treatment course, the patient reported:

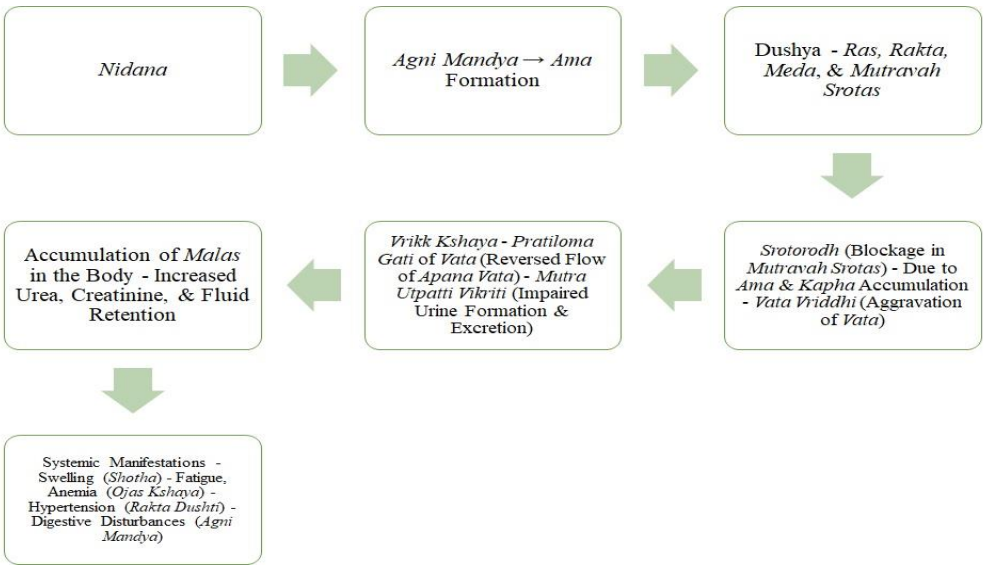
- A substantial reduction in episodes of nausea and vomiting, with a complete cessation of these symptoms by the first week of treatment.
- Improved appetite and energy levels, allowing for a gradual return to normal daily activities.
- Alleviation of generalized weakness, as evidenced by the patient's ability to engage in light physical activities without fatigue.
- Enhanced mental clarity and emotional well-being, attributed to the incorporation of mindfulness meditation and yoga practices into the daily routine.

Laboratory investigations conducted at various intervals throughout the treatment period demonstrated significant improvements in renal function markers. Key findings included:

- A notable reduction in serum urea levels from 65 mg/dL at baseline to 46.83 mg/dL by the end of the treatment period.
- Serum creatinine levels decreased from 7.15 mg/dL to 4.90 mg/dL, indicating improved renal clearance and function.

DISCUSSION

The management of Chronic Kidney Disease (CKD) presents a significant challenge in modern medicine, particularly in advanced stages where conventional treatments may offer limited efficacy. This case study illustrates the potential of *Ayurvedic* interventions to not only alleviate symptoms but also enhance renal function in patients with CKD stage V. The findings underscore the importance of a holistic approach that integrates dietary, lifestyle, and therapeutic modalities tailored to individual patient needs. The *Ayurvedic* framework emphasizes the balance of bodily *doshas* (*Vata*, *Pitta* and *Kapha*) and the importance of maintaining the integrity of the body's *srotas* (channels). In this case, the patient's symptoms were indicative of *srotodushti* (channel dysfunction), which is a critical factor in the progression of kidney disease. The *samprapti* (pathogenesis) of the disease in this case can be articulated as follows:



The personalized treatment plan, which included *Panchakarma*[9] therapies such as *Awagaha Swedana*, *Kashya basti* procedures, etc. aimed to detoxify the body, restore balance, and promote renal repair. These therapies are designed to enhance circulation, reduce inflammation, and facilitate the elimination of toxins, thereby supporting kidney function.

*Awagaha Swedana***:** This procedure involves immersing the patient in a warm medicated-infused bath, which lasted for 30–60 minutes. The heat from the water helps to dilate blood vessels, enhance circulation, and promote sweating, facilitating the elimination of toxins from the body.

Gokshuradi and *Punarnavadi Siddha Sneha Matra Basti* (Low-Dose Oil-Based Enema)**:** A gentler form of enema, *Matra Basti* utilized smaller volumes of medicated oil to provide nourishment and lubrication to the intestines.[10] This procedure helped in maintaining hydration and supporting the digestive system, which is crucial for overall health in CKD patients. By delivering therapeutic substances directly to the colon, it supported the absorption of nutrients and enhanced the overall efficacy of the treatment.

Guduchyadi Kashaya Niruha Basti(Decoction-Based Enema)**:** This procedure involved administering *Guduchyadi Kashaya* via enema to cleanse the colon and balance the *doshas*. It aimed to reduce inflammation and improve kidney function by promoting the elimination of waste products and toxins.[11]

Shiropichu and *Shiroabhyanga* with *Brahmi Tail* and *Shirodhara* on Alternate Day (Medicated Oil Application on the Head)**:** In this therapy, medicated oil was applied to the scalp in different way, promoting relaxation and mental clarity. This treatment aimed to alleviate stress and enhance the patient's overall well-being, which is essential for recovery in chronic illness.

CKD TAB**:** This formulation contains a blend of herbs such as *Pashanbhed, Varun, and Punarnava*, which are known for their renal protective and anti-inflammatory properties. It supports renal function, promotes diuresis, and aids in detoxification.

GFR Powder: Comprising ingredients like *Bhumi Amla* and *Punarnava*, this powder is designed to enhance kidney function and reduce inflammation and to help alleviate renal symptoms and improve overall health.[12]

Chander Vati**:** This medication includes medicine such as *Kapoor Kachri* and *Giloy*, which are effective in alleviating urinary tract symptoms and supporting liver and renal detoxification. Its administration aimed at promoting urinary health and enhancing metabolic processes.

Divya Shakti Powder: This *ayurvedic* blend is aimed at enhancing energy levels and overall vitality. It supports the body's resilience and helps combat fatigue associated with chronic kidney disease.

Ge. Liv Forte: This formulation is designed to support liver health and enhance detoxification processes in the body. It helps in balancing liver function, which is crucial for patients with chronic kidney disease, as the liver plays a vital role in metabolic waste management.[13]

Chitrakadi Vati: Comprising a blend of potent medicinal herbs like *Chitrak* and *Pippali*, this medication is known for its digestive and metabolic enhancement properties.[14] It aids in improving digestive function, reducing toxins (*Ama*), and promoting overall metabolic health.

Sama Vati: This formulation includes ingredients such as *Vidarikand* and *Musli*, which are beneficial for digestion and alleviating constipation.[15] It supports gastrointestinal health, ensuring better nutrient absorption and overall well-being in CKD patients.

Kidney Care BLK**:** This *ayurvedic* preparation combines various ingredients like *Punarnava rishta* and *Gokshuradi Kadha*, aimed at enhancing diuresis and maintaining urinary tract health.[16] It supports kidney function and helps in the management of renal symptoms.

Liv DS Capsules**:** Contains extracts of herbs like *Bhumi amla* and *Guduchi*, these capsules are formulated to reduce oxidative stress and enhance liver metabolism. It plays a crucial role in supporting liver health, which is essential for the detoxification processes in patients with chronic kidney disease.

Arogya Vati: It is beneficial in managing chronic kidney disease (CKD) through multiple mechanisms. The *Rasayana* properties of ingredients like *Amalaki*, *Vibhitaki*, and *Haritaki* strengthens tissue health and reduce oxidative stress. Additionally, the metallic *bhasmas* (*Loh*, *Abhrak*, *Tamra*) enhances systemic metabolism and improves haemoglobin levels, often compromised in CKD.

DhatuposhakVati; Enhances immunity, which is crucial for CKD patients to combat infections and maintain overall health. It alleviates anorexia and hyperacidity often seen in CKD, thus supporting better appetite and digestion.[17] Additionally, it strengthens the body by addressing nutritional deficiencies, promoting metabolic balance, and supporting tissue nourishment, essential in managing CKD complications.

The dietary modifications implemented in this case were pivotal in addressing the underlying metabolic imbalances contributing to CKD. The emphasis on a

renal-friendly diet, which included easily digestible foods, herbal tea, and the avoidance of processed and synthetic foods, aligns with *Ayurvedic* principles of nourishment (*Santarpana)* and detoxification *(Apatarpana*). The incorporation of periodic fasting and mindful eating practices further supported metabolic reset and improved digestive health, which are essential for optimal renal function. The significant symptomatic improvement observed in the patient, including the reduction of nausea, vomiting, and weakness, correlates with the investigational findings of decreased serum urea and creatinine levels. This dual improvement highlights the interconnectedness of physical symptoms and biochemical markers in CKD management. This suggests that the *Ayurvedic* approach may offer a viable alternative or complement to conventional therapies, particularly in patients who are not candidates for dialysis or transplantation.

NEED FOR FURTHER RESEARCH

Despite the promising outcomes observed in this case study, there is a critical need for further research to substantiate the efficacy of *Ayurvedic* interventions in the management of chronic kidney disease (CKD). Future studies should focus on larger, randomized controlled trials to evaluate the long-term effects of specific *Ayurvedic* formulations and treatment protocols on renal function and overall health outcomes. Additionally, investigations into the mechanisms of action of these *Ayurvedic* Treatments, as well as their interactions with conventional treatments, are essential to establish a comprehensive understanding of their therapeutic potential. Moreover, exploring the impact of individualized *Ayurvedic* approaches on diverse patient populations with varying stages of CKD could provide valuable insights into personalized medicine. Such research endeavours will not only enhance the scientific validation of *Ayurvedic* practices but also contribute to the development of integrative treatment strategies that can improve patient care and outcomes in chronic kidney disease management.

CONCLUSION

This case study contributes to the growing body of evidence supporting the role of *Ayurveda* in managing chronic health conditions, particularly CKD. The integration of personalized *Ayurvedic* treatments, dietary modifications, and lifestyle changes not only addresses the symptoms of CKD but also promotes renal health and overall well-being. As the global burden of CKD continues to rise, exploring holistic and integrative approaches may provide new avenues for effective management and improved patient outcomes. Further research is warranted to establish standardized protocols and guidelines for the application of *Ayurvedic* principles in renal care. The *Ayurvedic* management of the patient with chronic kidney disease (CKD) demonstrated significant symptomatic and investigational improvements. Symptomatically, the patient reported a marked reduction in generalized weakness, loss of appetite, and episodes of nausea and vomiting, indicating enhanced overall well-being and quality of life. The combination of *ayurvedic* formulations and *Panchakarma* therapies effectively addressed digestive issues, improved energy levels, and alleviated urinary tract symptoms, contributing to a more stable condition. From an investigational perspective, regular monitoring of renal function parameters revealed a stabilization of serum urea and creatinine levels, suggesting a positive impact on kidney health. The integrative approach not only supported renal function but also promoted liver detoxification and metabolic balance, highlighting the efficacy of *Ayurvedic* interventions in managing CKD. Overall, the treatment regimen facilitated a holistic improvement in the patient's health status, underscoring the potential of *Ayurveda* in chronic disease management.

REFERENCES

1. Hargovind Trivedi, Aruna Vanikar, Himanshu Patel, et.al. High prevalence of chronic kidney disease in a semi-urban population of Western India. Clinical Kidney Journal, June 2016; 9(3): 438–443, https://doi.org/10.1093/ckj/sfw009
2. Thaminda Liyanage, Tadashi Toyama, Carinna Hockham, et.al. Prevalence of chronic kidney disease in Asia: a systematic review and analysis. Volume 7, Issue 1.https://gh.bmj.com/content/7/1/e007525
3. Pandey A, Azad Amar singh, Bhardwaj Anu, Thakur Ganga, Prakash Gayatri, Effectiveness of Gravitational Resistance and Diet (GRAD) system in reversing chronic kidney disease (CKD) - among dialysis patients, dayanand ayurvedic college, shridhar university, https://davayurveda.com/wp-content/uploads/2022/10/j-GRAD-System-Paper-FINAL-Mar-27-2.pdf, pillani, 2022.
4. Book: 360 Postural Medicine ISBN 978-93-5486-551-0
5. Manish, Chaudhary G, Singh SP, Singh M, Richa. Ayurvedic management of Stage IV chronic kidney disease. *Int J Unani Integr Med.*, 2024; 8(3 Pt B): 80-84.
6. Manish, Chaudhary G, Singh SP, Singh M, Richa. Clinical evaluation of chronic kidney disease management: integrating lifestyle modification and Ayurveda. *Int J AYUSH.*, 2024; 10: 12-25.
7. Mishra, B. S. (1997). Bhavprakash (2nd ed.). Varanasi: Chaukham-ba Prakashan.
8. Volicer L, Jean- Charles R, Chobani an AV. Effects of Head-down tilt on fluid and electrolyte balance. Aviation Space Environ Med., 1976 Oct; 47(10): 1065-8. PMID: 985278.5.
9. Srikanth N, Bhuvaneshwari S. Panchakarma: Ayurvedic Detoxification and Rejuvenation Therapy. Ancient Sci Life, 2016; 36(1): 28-32.
10. Sharma H, Singh A, Verma P. Therapeutic role of Matra Basti with Gokshura-Siddha Sneha in chronic kidney disease: A clinical study. J Ayurveda Integr Med., 2023; 14(3): 150-155.

11. Gupta A, Kumar B. Clinical Perspectives on Ayurveda and Immunity with Special Reference to Guduchi (Tinospora cordifolia). J Tradit Complement Med., 2020; 10(5): 510-517. DOI: 10.1016/j.jtcme.2020.04.005.
12. Sharma RK, Dash B. Charaka Samhita: Revised Text with English Translation. Varanasi: Chowkhamba Sanskrit Series Office, c2012; 585-592.
13. Baghel MS, Swarnkar SK, Agarwal A, Yadav B. Role of GokshuradiGuggulu and Punarnavadi Kashaya in the management of Mutrakricchra with special reference to urinary tract infection. AYU., 2012; 33(4): 504-508.
14. Acharya V. Bhishagratna K. Bhavaprakasha Nighantu, Verse 39-41, Chitrakadi Vati section. 4th ed. Varanasi: Chaukhambha Sanskrit Sansthan, 2008.
15. Singh N, Rastogi RP. Inhibition of oxidative stress and inflammation in kidney diseases by Ayurvedic herbs: Role of polyphenols and flavonoids. J Ayurveda Integr Med., 2015; 6(1): 50-55.
16. Tripathi YB, Kumar R. Effect of Vidarikand and Punarnava on renal function in chronic kidney disease. J Pharm Sci Innov., 2016; 5(3): 180-183.
17. Sharma PV, Dash B, Sharma RK. Effect of Dhatuposhak Vati on nutritional deficiencies in chronic diseases: A clinical evaluation. Ancient Science of Life., 2012; 32(2): 91-95. doi:10.4103/0257-7941.110532.