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RESEARCH ARTICLE

INTEGRATIVE HOPE IN ADVANCED CHRONIC KIDNEY DISEASE: AN AYURVEDIC CASE APPROACH

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Abstract

Chronic Kidney Disease (CKD) is a progressive and irreversible disorder characterized by a gradual decline in renal function, with Stage V CKD or End-Stage Renal Disease (ESRD) being the most advanced stage. Conventional management strategies such as pharmacological therapy, dialysis, and transplantation, though effective, are associated with high costs, accessibility issues, and long-term complications. Ayurveda correlates CKD with Vrikka Vikara or Mootravaha Srotas Dushti, where impaired digestion (Agnimandya), accumulation of toxins (Ama), and vitiation of Vata and Kapha Doshas result in renal damage and systemic manifestations. A 45-year-old male presented to Jeena Sikho Lifecare Limited Hospital, Allahabad, India with Stage V CKD and a history of hypertension for three months. Symptoms included Daurbalya (weakness), Kasa (cough), Shwasa (dyspnea), Phenila Mutra Pravritti (frothy urine), Aruchi (loss of appetite), Vibandha (constipation), and Prishta Shoola (back pain). Management included Panchakarma therapies, Ayurvedic formulations, and Pathya–Apathya (diet and lifestyle modifications). The patient showed marked symptomatic improvement including relief of weakness, normalization of appetite and bowel habits, resolution of dyspnea, reduction of urinary frothiness, and partial relief in back pain. Vital parameters such as weight and blood pressure remained stable. Biochemical investigatio ns revealed significant improvement: urea decreased from 222 mg/dL to 82.21 mg/dL, serum creatinine from 9.96 mg/dL to 5.05 mg/dL, and uric acid from 5.9 mg/dL to 3.0 mg/dL, with stable sodium and potassium levels and normalization of calcium.

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This case demonstrates that integrative Ayurvedic management may offer symptomatic relief, biochemical stabilization, and improved quality of life in advanced CKD. Larger controlled studies are needed to confirm efficacy and establish standardized guidelines.

Introduction:-

Chronic Kidney Disease (CKD) is a progressive and irreversible clinical condition in which there is a gradual decline in renal function over time. [1]The disease is staged according to the severity of functional impairment, with Stage 5 CKD, also known as end-stage renal disease (ESRD), representing the most advanced stage. [2]At this level, the kidneys lose their ability to effectively maintain fluid, electrolyte, and metabolic balance, resulting in severe clinical manifestations.[3]Patients often present with fatigue, edema, dyspnea, anorexia, anemia, mineral bone disorders, and systemic complications that significantly impair quality of life. [4]Conventional medical management includes dietary restrictions, pharmacological support, and renal replacement therapies such as dialysis and transplantation. [5]However, these approaches often pose challenges related to cost, accessibility, and long-term side effects, leading many patients to seek integrative and supportive healthcare strategies.[6]

From an Ayurvedic perspective, CKD can be correlated with Vrikkagata Vikara (disorders of the kidneys) or as a chronic manifestation of Mootravaha Srotas Dushti (pathological changes in urinary channels). [7]The root of the disease process lies in Agnimandya (weakness of digestive and metabolic fire), which produces Ama (toxic, unmetabolized material). [8]This Ama vitiates Tridosha (three biological humors), with Kapha (obstructive factor) and Vata (degenerative factor) predominating.[9]Kapha causes Sanga (obstruction) in renal microchannels, leading to fluid retention and sluggish metabolism, while Vata is responsible for Kshaya (degeneration) and the progressive depletion of renal tissues.[10] This Dosha imbalance, along with chronic Dhatu Kshaya (tissue depletion), culminates in advanced renal dysfunction and systemic manifestations.[11]

The Samprapti Ghatak (elements of pathogenesis)[12] of CKD (Stage 5) can be described as Fig 1:

Dosha **(Humoral factors)**	•***Kapha–Vata*** **predominant** ***Tridosha*** **involvement (*Kapha* – obstructive factor, *Vata* – degenerative factor, *Pitta* – secondary involvement)**
Dushya **(Affected body tissues)**	•***Rasa*** **(plasma/lymph),** ***Rakta*** **(blood),** ***Mamsa*** **(muscle tissue),** ***Meda*** **(adipose tissue),** ***Majja*** **(bone marrow/nervous tissue), and** ***Ojas*** **(vital essence/immunity)**
Srotas **(Body channels)**	•***Mootravaha Srotas*** **(urinary channels),** ***Raktavaha Srotas*** **(blood channels)**
Srotodushti Prakara **(Types of channel vitiation)**	•***Sanga*** **(obstruction),** ***Vimargagamana*** **(aberrant/irregular flow),** ***Kshaya*** **(depletion or degeneration)**
Agni **(Digestive/metabolic fire)**	•***Jatharagni*** **(digestive fire) and** ***Dhatvagni Mandya*** **(hypofunction of tissue metabolism)**
Udbhava Sthana **(Site of origin)**	•***Aamashaya*** **(stomach and small intestine – primary origin due to impaired digestion and metabolism)**
Sanchara Sthana **(Site of circulation)**	•***Sarva Sharira*** **(whole body/systemic distribution)**
Vyakti Sthana **(Site of manifestation)**	•***Vrikkas*** **(kidneys as the site of clinical manifestation)**
Adhisthana **(Seat of pathology)**	•***Mootravaha Srotas*** **(urinary channels as the primary seat of pathology)**

Ayurvedic management of CKD in this advanced stage focuses on a holistic treatment protocol aimed at addressing the root pathology as well as systemic manifestations. [13]The primary objectives are Agnideepana and Ama Pachana (enhancing digestion and eliminating toxic metabolites) through Deepana–Pachana herbs, followed by Dosha Shamana (pacification of aggravated Doshas) with Kapha–Vata balancing interventions.[14]Srotoshodhana

(purification of channels) is achieved through mild Mridu Shodhana procedures like Basti therapy with Mutrala (diuretic) and Vrikkahara (nephroprotective) herbs, ensuring unobstructed flow within MootravahaSrotas.

[15]Rasayanatherapy (tissue rejuvenation) plays a vital role in preventing further degeneration, with the use of nephroprotective herbs.[16]Mutra virechaniya dravyas help in regulating urinary output and reducing fluid retention. [17]Additionally, emphasis is placed on Ojasvardhana (enhancing vitality and immunity) through Rasayana preparations and supportive formulations, while Pathya–Apathya (diet and lifestyle regulations) form the foundation of long-term management, including a light, easily digestible, Kapha–Vata pacifying diet and avoidance of heavy, salty, and sour foods.[18]

Thus, CKD in its advanced stage is understood in Ayurveda as a chronic, degenerative condition rooted in Agni dysfunction, Ama formation, and Dosha vitiation, leading to Mootravaha Srotas Dushti with progressive obstruction and degeneration.[19] The integrative Ayurvedic treatment protocol not only addresses the pathogenesis but also strengthens tissues, preserves Ojas, and improves quality of life, thereby aiming to delay disease progression and minimize complications.

Objective:-

To examine the therapeutic outcomes of integrated Ayurvedic management in a 45-year-old male patient suffering from Stage V Chronic Kidney Disease with hypertension.

Materials and Methods:-

Case Report

On September 01, 2025, a 45-year-old male presented to Jeena Sikho Lifecare Limited Hospital, Allahabad, India, where he was clinically diagnosed with Stage V Chronic Kidney Disease (CKD), correlated in Ayurveda with Vrikka Vikara. His past medical history was significant for Uccha Raktachapa (hypertension), persisting for the preceding one and a half years.

At the time of admission, the patient demonstrated multiple clinical manifestations, included Daurbalya (generalized weakness), Kasa (cough), Kricchra Shwasa (breathlessness/dyspnea), Phenila Mutra Pravritti (frothy urine), Aruchi (loss of appetite), Vibandha (constipation), and Prishtha Shoola (lower back pain). No remarkable family history or substance addiction was reported, thereby excluding hereditary and lifestyle-related risk factors apart from hypertension.

The Ashta-vidha Pariksha (eight-fold clinical examination) findings at the initial visit are summarized in Table 1. Laboratory investigation reports obtained during the treatment period are presented in Table 2, while daily vital parameters along with the diabetic chart recorded during the In-Patient Department (IPD) stay are depicted in Table 3. The patient remained admitted for a total duration of 10 days, and discharged on September 10, 2025.

Table 1The Ashta-Vidh Pariksha (examination) during admission

Parameter	01-09-2025
Naadi **(Pulse)**	*Vataj Pittaj*
Mala **(Stool)**	*Baddha* (Constipated)
Mutra **(Urine)**	*Safena* (Frothy)
Jiwha **(Tongue)**	*Saam* (Mild Coated)
Shabda **(Voice)**	*Spashta* (Normal)
Sparsha **(Touch)**	*Anushna sheet* (Normal)
Drik **(Eye)**	*Avikrit* (Normal)
Akriti **(Physique)**	*Madhyam*

Table 2The laboratory investigation reports during the treatment (Fig 2)

Parameter	01-09-2025	10-09-2025
Urea	**222 mg/dL**	**82.21 mg/dL**
Serum Creatinine	**9.96 mg/dL**	5.05 mg/dL
Uric Acid	5.9 mg/dL	**3.0 mg/dL**
Sodium	140.3 mEq/L	141.2 mEq/L
Potassium	**5.56 mEq/L**	5.58 mEq/L
Calcium	**12.2 mg/dL**	9 mg/dL

Table 3 The daily vitals during the IPD treatment

Date	Weight	Blood pressure (mmHg)
01-09-2025	61.3 Kg	110/70 mmHg
02-09-2025	61.2 Kg	120/70 mmHg
03-09-2025	61.5 Kg	110/70 mmHg
04-09-2025	61.3 Kg	120/70 mmHg
05-09-2025	61.5 Kg	110/80 mmHg
06-09-2025	61.7 Kg	110/80 mmHg
07-09-2025	61.6 Kg	120/80 mmHg
08-09-2025	62.3 Kg	110/80 mmHg
09-09-2025	61.5 Kg	110/70 mmHg
10-09-2025	61.7 Kg	110/70 mmHg

II Treatment Plan for the Patient at Jeena Sikho Lifecare Limited Hospital (Fig II):

a. Diet Plan:

The patient was advised to adhere to a Disciplined and Intelligent Person's (DIP) diet in conjunction with an Ayurvedic dietary regimen, aimed at complementing the overall Ayurvedic management of CKD [20].

Table 4. Lifestyle Recommendations:

Practice meditation for relaxation
Perform yoga (*Sukhasan* and *Sukshma Pranayam*).
Ensure 6-8 hours of quality sleep each night
Engage in a 30-minute barefoot brisk walk.
Follow a structured daily routine for optimal health.

***Pathya* (Wholesome/Recommended)**	Light, easily digestible foods such as *yusha* (thin pulses/vegetable soups) prepared from green gram *(Mudga)* or vegetables like bottle gourd, ridge gourd, and pumpkin.
	Freshly cooked rice *(Shali* or old rice) in small portions, along with boiled or steamed vegetables.
	Fruits that are low in potassium and easy to digest, such as apple, pear, papaya, and guava (in moderation).
	Spices in small quantities such as cumin *(Jeeraka),* coriander *(Dhanyaka),* and turmeric *(Haridra)*
Apathya (Unwholesome/To be Avoided)	Excessively heavy, oily, salty, sour, and spicy foods, which aggravate *Kapha* and *Pitta.*
	Pulses like black gram *(Masha),* kidney beans *(Rajma),* chickpeas *(Chana),* and horse gram *(Kulatha)* .
	Fermented foods, pickles, bakery products, and processed foods high in sodium or preservatives.
	Meat, fish, and eggs
	Excess dairy, especially curd, paneer, and cheese
HYDRATION	Water intake should be regulated according to the clinical condition
	Warm water in small, frequent sips is advisable
	Over-hydration should be strictly avoided
MILLET INTAKE	Millets such as foxtail millet *(Kangni),* little millet *(Kutki),* and barnyard millet *(Sanwa)* may be included in moderation
FASTING	Weekly once fasting is advised

The dietary approach (Table 5)

Meal Timing and Structure (Table 6):

Early Morning (5:45 AM)	150 ml Herbal tea with curry leaves, raw ginger, and turmeric.
Breakfast (9:00-10:00 AM)	Steamed seasonal fruits, steamed sprouts, and fermented millet shake
Morning Snacks (11:00 AM)	Red juice (150 ml) and soaked almonds
Lunch (12:30-2:00 PM)	Plate 1 with steamed salad and Plate 2 with cooked millet
Evening Snacks (4:00-4:20 PM)	Green juice (150 ml) with 4 almonds.
Dinner (6:15-7:30 PM)	Steamed salad, chutney, soup, and millet khichdi

Panchakarma procedures administered to patient during the IPD treatment

Awagah Swedan[21,22]

- The patient was seated in warm water immersion, with the level maintained up to the umbilicus.
- The water temperature was regulated at approximately 42 °C to promote diaphoresis.
- The intervention was continued for a duration of around 40 minutes.

Abhyanga with Mahanarayan Oil[23]

- About 150 ml of Mahanarayan Taila was taken and warmed gently using the bain-marie (hot water bath) method to a lukewarm temperature.
- The lukewarm oil was applied evenly over the entire body, starting from the head (Shiras) and proceeding towards the feet (Pada).
- Long, downward strokes were given on the limbs and circular movements over the joints, with gentle to moderate pressure. Special focus was given to the back, waist, and lower limbs.
- The massage was continued for approximately 30 minutes, ensuring adequate oleation and absorption of the oil.
- The oil was allowed to remain on the body for 20 minutes.
- Adequate rest was advised post-procedure.
-

Swedan with Dashmool Kwath[24]

- For the procedure, 50 g of Dashmool coarse powder was taken and boiled with 800 ml of water, reduced to one-fourth (approximately 200 ml) to obtain the Dashmool Kwatha. The decoction was filtered and kept lukewarm for use in the Swedana process.
- After Abhyanga, the patient was comfortably seated on a Swedana chair. Warm vapors of Dashmool Kwatha were directed towards the body in a controlled manner, with care to avoid excessive heat near the head and chest.
- Steam was applied evenly until mild perspiration occurred, focusing particularly on the back and lower limbs.
- The fomentation was continued for about 20 minutes.
- Following Swedana, the patient was advised to rest in a warm environment for 15 minutes.
- Light, easily digestible food and warm water were recommended, and exposure to cold or exertion was strictly avoided.

MatraBasti with Punarnava Tail [25]

- About 90 ml of Punarnava Taila was measured for administration. The oil was gently warmed using the bain-marie (hot water bath) method to achieve a lukewarm temperature suitable for instillation.
- The patient was made to lie down in the left lateral position (Vama Parshva Shayana) with the left leg extended and the right leg flexed at the knee and hip.
- Using a sterilized enema syringe and rubber catheter, the lukewarm Punarnava Taila was slowly introduced into the rectum under aseptic conditions.
- The oil was retained comfortably, indicating proper absorption and action of the Matra Basti.
- The patient was advised to rest in a supine position for 20 minutes following the administration.
- Light, easily digestible diet and avoidance of heavy exertion were recommended post-procedure.

Vrikka Basti with Sahacharadi oil[26]

- Sahacharadi Taila was taken in 80 ml and gently warmed using the bain-marie (hot water bath) method to attain a lukewarm temperature suitable for external application.
- The patient was instructed to lie in a prone position comfortably on the therapy table.
- A circular reservoir was constructed over the Vrikka Pradesh (lumbar region over kidneys) using black gram flour dough (Masha pinda) to form a leak-proof boundary, with a height of about 2–3 cm.
- The lukewarm Sahacharadi Taila was gently poured into the dough reservoir until it covered the lumbar region adequately. The oil was maintained at a constant lukewarm temperature throughout the procedure by replacing it intermittently with freshly warmed oil.
- The oil was retained within the basti reservoir for 30 minutes.
- After the stipulated duration, the oil was carefully removed, and the dough ring dismantled.
- The patient was advised rest, with avoidance of cold exposure or strenuous activity immediately after the procedure.

Copper plate therapy[27]

- Therapeutic copper plates of standardized size and thickness were cleaned, sterilized, and gently warmed before application.
- The patient was comfortably positioned on the therapy table in a prone posture, allowing access to the treatment site.
- The prepared copper plates were placed over the lumbar and renal region (Vrikka Pradesh). The plates were kept in close contact with the skin for the prescribed duration. Warmth was maintained either through pre-heated plates or by covering with warm compresses.
- The plates were retained for approximately 30 minutes.
- After the stipulated time, the copper plates were removed, and the local area was gently wiped with a warm, damp cloth.

IV Medicinal Interventions

a) The allopathic medicines

The patient was taking necessary allopathic medicines during IPD which is mentioned in Table 7.

Medicine	Initial Dose	Adjustment	Reason for Adjustment
Torasemide	10 mg BD	Reduced to 5 mg OD	Pedal oedema and facial puffiness improved; urine output normalized
Sodium Bicarbonate	500 mg BD	Reduced to 500 mg OD	Correction of metabolic acidosis and improved biochemical profile
Dapagliflozin	10 mg OD	Discontinued	Blood glucose controlled; risk of worsening renal function avoided
S-Metoprolol Succinate	23.75 mg OD	Continued at lower frequency	Blood pressure stabilized
Rosuvastatin	10 mg OD	Discontinued	Lipid profile improved and maintained

b) The Ayurvedic medicine

The Ayurvedic regimen employed in this case were Dr. Kidney Care Tablet, CKD Tablet, Mutra Vardhak Vati, LIV Shuddhi Tablet, Amalpit Nashak, Gokshura Tablet and Renal Care Support Syrup (Table 8).

Table 8. Medications taken during the treatment period

Medicine Name	Ingredients	Dosage with *Anupana*	Therapeutic Effects
Dr. Kidney Care Tablet	***Gokshur*** *(Tribulus terrestris),* ***Apamarg*** *(Achyranthes aspera),* ***Mulethi*** *(Glycyrrhiza glabra),* ***Punarnava*** *(Boerhavia diffusa),* ***Varun Chhaal*** *(Crataeva nurvala),* ***and Sheetal Chini*** *(Piper cubeba).*	1 TAB BD (*Adhobhakta* with *koshna jala*- After meal with lukewarm water)	*Mutravaha Srotas Shodhana* (cleansing of the urinary channels), *Vata-Kapha Shamana* (pacification of aggravated *Vata* and *Kapha Doshas*), *Mutrala* (diuretic), *Shothahara* (anti-inflammatory), *Rasayana* (rejuvenative), *Agnideepana* (enhancement of digestive fire), *Amapachana* (digestion and elimination of metabolic toxins).
CKD Tablet	***Pashanbhed*** *(Bergenia ciliata),* ***Varun*** *(Crataeva nurvala),* ***Punarnava*** *(Boerhavia diffusa),* ***Gokhru*** *(Tribulus terrestris),* ***Apamarg*** *(Achyranthes aspera),* ***Haldi*** *(Curcuma longa),* ***Charila*** *(Embelia ribes),* ***Kulthi*** *(Dolichos biflorus),* ***Harad*** *(Terminalia chebula),* ***Bhumiawla*** *(Pyrrosia piloselloides),* ***Giloy*** *(Tinospora cordifolia),* ***Shitalchini*** *(Vernonia cinerea),* ***Anantmool*** *(Hemidesmus indicus),* ***Khas*** *(Vetiveria zizanoides),* ***Yab Kshar*** *(Alkaline substance, botanical origin unclear),* ***Muli Kshar*** *(Raphanus sativus),* ***Kalmi Shora*** *(Sodium bicarbonate),* ***Sajji Kshar*** *(Traditional alkaline substance, botanical origin unclear),* ***Shilajit*** *(Asphaltum),* ***Hajral Yahud*** *(Silicon dioxide),* ***Shwet Parpati*** *(Mercury-based preparation in Ayurvedic medicine).*	1 TAB BD (*Adhobhakta* with *koshna jala*)	*Vata-Pitta Shaman (Dosha* pacifier), *Raktashodhana* (Blood purifier), *Vrikkadhara* (Kidney tonic), *Shoth har* (Anti-inflammatory), *Mutral* (Diuretic)
Mutra Vardhak Vati	***Gokshur*** *(Tribulus terrestris),* ***Guggul*** *(Commiphora wightii),* ***Sonth*** *(Zingiber officinale),* ***Kalimirch*** *(Piper nigrum),* ***Pippal*** *(Piper longum),* ***Bahera*** *(Terminalia bellerica),* ***Harad*** *(Terminalia chebula),* ***Amla*** *(Phyllanthus emblica),* ***Motha*** *(Cyperus rotundus).*	1 TAB BD (*Adhobhakta* with *koshna jala*)	*Mutravardhaka* (Diuretic), *Srotoshadhaka* (Channel cleanser), *Deepan* (Appetizer), *Lekhana* (Fats and tissues remover), *Anulomana* (Pacifier of *Vata* and promoting elimination)
LIV Shuddhi Tablet	***Milk Thistle*** *(Silybum marianum),* ***Guduchi*** *(Tinospora cordifolia),* ***Dandelion*** *(Taraxacum officinale),* ***Tulsi*** *(Ocimum sanctum),* ***Punarnava*** *(Boerhavia diffusa),* ***Amla*** *(Phyllanthus emblica) and* ***Arjuna*** *(Terminalia arjuna)*	1 TAB BD (*Adhobhakta* with *koshna jala*)	*Raktashodhak* (Blood purifier), *Deepan* (Appetizer), *Pachan* (Digestant), *Shoth har* (Anti-inflammatory), *Vata-kapha shamaka (Dosha*- balancer), *Rasayana* (Rejuvenator), *Ojovardhaka* (Immunity enhancer)
Amalpit Nashak	***Mulethi*** *(Glycyrrhiza glabra),* ***Pudina*** *(Mentha spicata or Mentha arvensis),* ***Hing*** *(Ferula assa-foetida),* ***Chitrak*** *(Plumbago zeylanica),* ***Jeera*** *(Cuminum cyminum),* ***Vidang*** *(Embelia ribes),* ***Ajwain*** *(Trachyspermum ammi),* ***Marich*** *(Piper nigrum),* ***Pipal*** *(Piper longum),* ***Shunthi*** *(Zingiber officinale),* ***Amla*** *(Emblica officinalis / Phyllanthus emblica),* ***Vibhitaki*** *(Terminalia bellirica),* ***Haritaki*** *(Terminalia chebula),* ***Shankh Bhasm*** *(Calcined conch shell ash),* ***Lavang*** *(Syzygium aromaticum).*	1 TAB BD (*Adhobhakta* with *koshna jala*)	*Pittashamak (Pitta* pacifier), *Agnideepan* (Digestive fire enhancer), *Amapachan* (Metabolic toxin eliminator), *Shoth har* (Anti-inflammatory), *Vatanulomana (Vata* regulator), *Rasayana* (Rejuvenator), *Ojovardhaka* (Immunity enhancer)
Gokshura Tablet	***Gokshur*** *(Tribulus terrestris)*	1 TAB BD (*Adhobhakta* with *koshna jala*)	*Mutral* (Diuretic), *Ashmarighna* (Anti-urolithic), *Shoth har* (Anti-inflammatory), *Vata-Pitta Shamaka* (Balances *Vata* and *Pitta doshas), Balya* (Tonic), *Rasayana* (Rejuvenative), *Vrishya* (Aphrodisiac).
Renal Care Support Syrup	***Nimba*** *(Azadirachta indica),* ***Arjuna*** *(Terminalia arjuna),* ***Gokshura*** *(Tribulus terrestris),* ***Hareetaki*** *(Terminalia chebula),* ***Ashwagandha*** *(Withania somnifera),* ***Karanja*** *(Pongamia pinnata),* ***Chirayata*** *(Swertia chirayita).*	15 ml BD (*Adhobhakta* with *sama matra koshna jala*- After meal with equal amount of lukewarm water)	*Mutravirechana* (Diuretic/Laxative), *Vata-Kapha Shamaka* (Pacifies *Vata* and *Kapha), Shoth har* (Anti-inflammatory), *Rasayana* (Rejuvenator), *Ashmarihara* (Anti-urolithiatic)

Result

After the IPD Ayurvedic treatment, the patient got significant improvement in clinical symptoms and biochemical parameters, indicating the effectiveness of the interventions in the management of CKD. A marked reduction in weakness, dyspnea, frothy urine, reduced appetite, constipation and backache, reflecting a positive therapeutic response to the Ayurvedic regimen. The patient's condition at the time of admission and discharge is summarized in Table 9.

Table 9 The conditions during the admission and discharge

Condition	Before Treatment	After Treatment
Weakness [28]	Moderate	Relief
Dyspnea [29]	Grade 2	Grade 0
Urine	Frothy	Normal
Appetite	Reduced	Normal
Bowel	Constipated	Clear
Backache [30]	6/10	5/10

Discussion:-

This case report presents the Ayurvedic therapeutic interventions and formulations administered to a 45-year-old male patient diagnosed with CKD stage V. The patient manifested symptoms of weakness, dyspnea, frothy urine, reduced appetite, constipation and backache. The detailed Samprapti (pathogenesis) for this condition is illustrated in Fig VI. [31]

Fig VI. The Samprapti for this study

The Samprapti and Nidan Parivarjana

The Samprapti (pathogenesis) of CKD with hypertension can be understood through the lens of Ayurveda as a progressive disorder arising from Agnimandya (impaired digestive and metabolic fire) leading to the formation of Ama (toxic, unmetabolized byproducts). This Ama circulates systemically and vitiates primarily Vata and Kapha Doshas. Kapha is responsible for Sanga (obstruction) in the renal microchannels (Mootravaha Srotas), while Vata contributes to Kshaya (degeneration) and tissue depletion over time. Continuous Srotodushthi (channel impairment), particularly of Mootravaha, Raktavaha, and Medovaha Srotas, results in microvascular damage, obstruction of normal urinary flow, and deranged metabolism. As the pathology advances, there is progressive Dhatu Kshaya (depletion of tissues) involving Rasa, Rakta, Mamsa, Meda, Majja, and Ojas, culminating in Vrikka Dushti (renal impairment) with classical clinical features such as weakness, dyspnea, frothy urine, loss of appetite, constipation, and backache.[33]

Nidan Parivarjana (elimination of causative factors) is considered the foremost principle of Ayurvedic management, and in the case of CKD with hypertension, it involves avoiding all causative and aggravating factors that contribute to disease progression. This includes the restriction of Atisnigdha (excess oily), Ati-Lavana (salty), Guru (heavy), and Abhishyandi (obstructive) foods, along with lifestyle factors such as sedentary habits, stress, and irregular sleep that aggravate Kapha and Vata Doshas.[32]Further, control of Uccha Raktachapa (hypertension) is crucial, as persistent elevation of blood pressure exacerbates Raktavaha Srotas Dushti (vascular impairment) and accelerates renal damage.[33] By adhering to Nidan Parivarjana, the recurrence of pathological processes is minimized, thereby slowing the progression of CKD, supporting renal function, and enhancing the overall quality of life of the patient.

The effects of Panchakarma therapies

The Panchakarma interventions administered in this case demonstrated a comprehensive approach aimed at addressing both systemic and localized pathophysiology of CKD (Vrikka Vikara) with hypertension. Awagaha Swedana promoted diaphoresis and improved peripheral circulation, thereby aiding in the reduction of edema and stiffness.[21,22]Abhyanga with Mahanarayan Taila provided oleation and nourishment to the tissues, pacifying aggravated Vata, alleviating musculoskeletal discomfort, and inducing relaxation. [23]This was followed by Dashmool Kwatha Swedana, which enhanced the effects of Abhyanga by facilitating deeper detoxification, improving perspiration, and relieving backache (Prishta Shoola) and breathlessness (Shwasa).[24]MatraBasti with Punarnava Taila acted as a localized therapeutic enema, offering both Vata pacification and nephroprotective benefits through its Mutrala (diuretic) and Rasayana (rejuvenative) effects, contributing to the regulation of urinary output and reduction of fluid overload. [25]Similarly, Vrikka Basti with Sahacharadi Taila provided direct oleation and strengthening to the renal region, improving local circulation and relieving stiffness and pain.[26] Additionally, Copper Plate Therapy applied over the lumbar region supported Shothahara (anti-inflammatory) action and enhanced systemic bioenergy balance through localized thermal and trace mineral effects. [27]

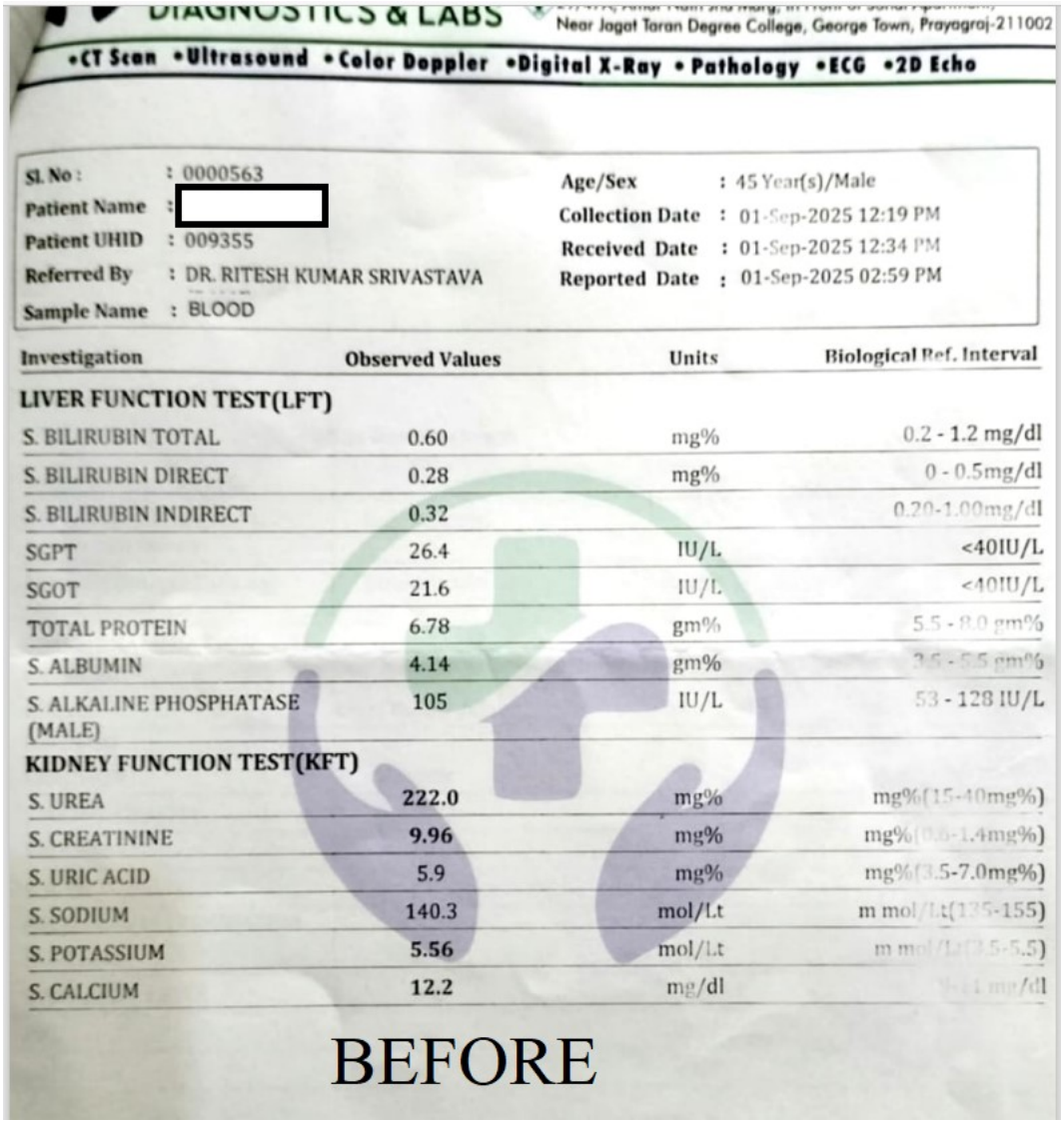
The effects of Ayurvedic medicines

The common ingredients across these formulations, when analyzed through Ras Panchaka, reveal their synergistic potential in the management of CKD (Vrikka Vikara). Gokshura, with Madhura Rasa (sweet taste), Sheeta Virya (cold potency), and Madhura Vipaka (sweet post-digestive effect), acts as a Mutrala (diuretic), Balya (strengthening), and Rasayana (rejuvenative), supporting urinary flow and protecting renal tissue. [34] Punarnava, characterized by Tikta–Kashaya Rasa (bitter and astringent taste), Laghu–Ruksha Guna (light and dry qualities), Ushna Virya(hot potency), and Katu Vipaka (pungent post-digestive effect), exerts Shothahara (anti-inflammatory), Mutrala (diuretic), and Tridosha-pacifying actions, particularly effective in reducing edema and fluid overload. [35] Varuna, with Tikta–Katu Rasa, Ushna Virya, and Katu Vipaka, acts as an Ashmarighna (anti-urolithiatic) and Mutravaha Srotoshodhaka (urinary channel cleanser), thereby preventing obstruction and stone formation. [36]Haritaki, Vibhitaki, and Amalaki, collectively known as Triphala, possess Kashaya–Amla–Madhura Rasas, Ushna Virya, and Madhura Vipaka, which regulate Agni, detoxify Srotas, act as mild laxatives, and serve as Rasayana agents, aiding in metabolic correction and tissue rejuvenation. [37] Guduchi, with Tikta Rasa, Guru–Snigdha Guna, Ushna Virya, and Madhura Vipaka, exhibits Rasayana, Deepana–Pachana, and immunomodulatory effects[38], while Arjuna, possessing Kashaya Rasa, Sheeta Virya, and Katu Vipaka, strengthens Raktavaha Srotas and provides cardioprotective benefits, which are crucial in CKD patients with hypertension.[39]

The effects of Ahar-vihar

The adoption of appropriate Ahara (diet) and Vihara (lifestyle practices) plays a crucial role in the management of CKD by slowing disease progression and improving quality of life. Pathyaahara such as light, easily digestible foods like yusha prepared from Mudga, boiled vegetables, low-potassium fruits, and freshly cooked Shali rice helps pacify aggravated Kapha–Vatadosha and maintain Agni, while small amounts of Jeeraka, Dhanyaka, and Haridra further enhance digestion and prevent Ama formation. [40,41] In contrast, Apathyaahara including heavy, oily, salty, fermented foods, protein-rich pulses such as Masha, Rajma, Chana, and Kulattha, meat, fish, and excess dairy aggravates Kapha and Pitta, causing Srotorodha and worsening renal dysfunction. [42] Hydration with small, frequent sips of warm water, while avoiding over-hydration, supports renal function, and moderate inclusion of millets such as Kangni, Kutki, and Sanwa aids Kapha-Meda balance. [43,44] Weekly fasting offers digestive rest and helps in Amapachana. Complementary Vihara practices such as meditation, Sukhasana and Sukshma Pranayam, adequate sleep, barefoot brisk walking, and adherence to a structured daily routine improve psychosomatic balance, strengthen Ojas, and reduce metabolic burden. Collectively, these interventions ensure Dosha balance, Srotoshodhana (channel cleansing), Dhatu Poshana (tissue nourishment), and preservation of Ojas, thereby improving clinical outcomes in CKD.[45,46]

Fig 2. The laboratory investigation reports during the treatment

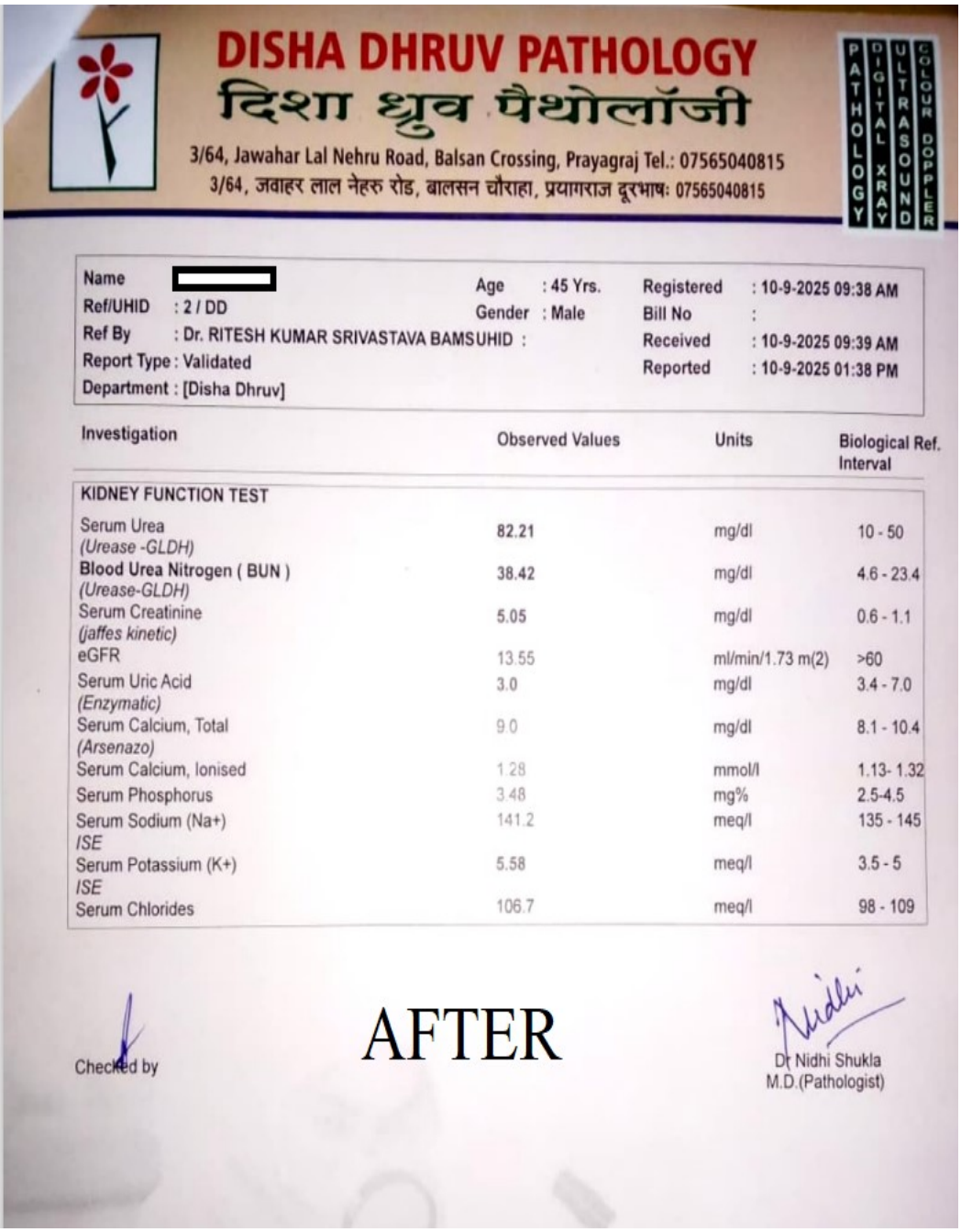


DIAGNOSTICS & LABS
Near Jagat Taran Degree College, George Town, Prayagraj-211002
•CT Scan •Ultrasound •Color Doppler •Digital X-Ray • Pathology •ECG •2D Echo

Sl. No : 0000563		Age/Sex	: 45 Year(s)/Male
Patient Name : [redacted]		Collection Date	: 01-Sep-2025 12:19 PM
Patient UHID : 009355		Received Date	: 01-Sep-2025 12:34 PM
Referred By : DR. RITESH KUMAR SRIVASTAVA		Reported Date	: 01-Sep-2025 02:59 PM
Sample Name : BLOOD			

Investigation	Observed Values	Units	Biological Ref. Interval
LIVER FUNCTION TEST(LFT)			
S. BILIRUBIN TOTAL	0.60	mg%	0.2 - 1.2 mg/dl
S. BILIRUBIN DIRECT	0.28	mg%	0 - 0.5mg/dl
S. BILIRUBIN INDIRECT	0.32		0.20-1.00mg/dl
SGPT	26.4	IU/L	<40IU/L
SGOT	21.6	IU/L	<40IU/L
TOTAL PROTEIN	6.78	gm%	5.5 - 8.0 gm%
S. ALBUMIN	4.14	gm%	3.5 - 5.5 gm%
S. ALKALINE PHOSPHATASE (MALE)	105	IU/L	53 - 128 IU/L
KIDNEY FUNCTION TEST(KFT)			
S. UREA	222.0	mg%	mg%(15-40mg%)
S. CREATININE	9.96	mg%	mg%(0.6-1.4mg%)
S. URIC ACID	5.9	mg%	mg%(3.5-7.0mg%)
S. SODIUM	140.3	mol/Lt	m mol/Lt(135-155)
S. POTASSIUM	5.56	mol/Lt	m mol/Lt(3.5-5.5)
S. CALCIUM	12.2	mg/dl	9.4 mg/dl

BEFORE



DISHA DHRUV PATHOLOGY
दिशा ध्रुव पैथोलॉजी
3/64, Jawahar Lal Nehru Road, Balsan Crossing, Prayagraj Tel.: 07565040815
3/64, जवाहर लाल नेहरु रोड, बालसन चौराहा, प्रयागराज दूरभाषः 07565040815

PATHOLOGY DIGITAL XRAY ULTRASOUND COLOUR DOPPLER

Name [redacted] Age : 45 Yrs. Registered : 10-9-2025 09:38 AM
Ref/UHID : 2 / DD Gender : Male Bill No :
Ref By : Dr. RITESH KUMAR SRIVASTAVA BAMSUHID : Received : 10-9-2025 09:39 AM
Report Type : Validated Reported : 10-9-2025 01:38 PM
Department : [Disha Dhruv]

Investigation	Observed Values	Units	Biological Ref. Interval
KIDNEY FUNCTION TEST			
Serum Urea *(Urease -GLDH)*	82.21	mg/dl	10 - 50
Blood Urea Nitrogen (BUN) *(Urease-GLDH)*	38.42	mg/dl	4.6 - 23.4
Serum Creatinine *(jaffes kinetic)*	5.05	mg/dl	0.6 - 1.1
eGFR	13.55	ml/min/1.73 m(2)	>60
Serum Uric Acid *(Enzymatic)*	3.0	mg/dl	3.4 - 7.0
Serum Calcium, Total *(Arsenazo)*	9.0	mg/dl	8.1 - 10.4
Serum Calcium, Ionised	1.28	mmol/l	1.13- 1.32
Serum Phosphorus	3.48	mg%	2.5-4.5
Serum Sodium (Na+) *ISE*	141.2	meq/l	135 - 145
Serum Potassium (K+) *ISE*	5.58	meq/l	3.5 - 5
Serum Chlorides	106.7	meq/l	98 - 109

Checked by

AFTER

Dr Nidhi Shukla
M.D.(Pathologist)

Future Research Perspectives

This case study highlights the management of a 45-year-old male with stage V CKD and hypertension, showing promising improvements with Ayurvedic interventions. However, to validate efficacy, safety, and reproducibility, larger randomized controlled trials are required to develop standardized protocols and evidence-based guidelines for integrating Ayurveda into conventional nephrology practice.

Conclusion:-

The following conclusions can be drawn from this case study on the management of CKD using Ayurvedic treatments:

Symptoms: Following the Ayurvedic interventions, the patient demonstrated notable symptomatic improvement. Weakness, which was moderate at baseline, showed marked relief. Dyspnea, initially graded as 2, was completely resolved (Grade 0). Urinary abnormality, previously characterized by frothiness, returned to normal. Appetite, which had been reduced, normalized post-treatment, while bowel function improved from a constipated state to clear and regular evacuation. Backache, initially reported at 6/10 on the pain scale, was reduced to 5/10.

Vital Investigations: The blood pressure values were mostly controlled, ranging between 110/70 mmHg and 110/80 mmHg, with occasional elevations up to 120/70–120/80 mmHg. These findings indicate effective maintenance of both blood pressure and weight balance.

Investigations: Biochemical investigations showed marked improvement following treatment. Urea levels decreased significantly from 222 mg/dL to 82.21 mg/dL, while serum creatinine dropped from 9.96 mg/dL to 5.05 mg/dL. Uric acid also reduced from 5.9 mg/dL to 3.0 mg/dL. Serum sodium remained stable (140.3 to 141.2 mEq/L), while potassium levels were maintained within a narrow range (5.56 to 5.58 mEq/L). Calcium decreased from 12.2 mg/dL to 9 mg/dL.

The study concludes that integrated Ayurvedic interventions in CKD produced positive clinical outcomes, including relief of symptoms, stabilization of vital signs, and significant improvements in laboratory parameters.

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