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Comprehensive Ayurvedic Approach to Mutravaha Srotas Dushti in Chronic Kidney Disease: Clinical Evidence from a Case Study

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ABSTRACT

Chronic Kidney Disease (CKD), a progressive and irreversible decline in renal function, is a growing global health concern. Ayurveda correlates CKD with Mutravaha Srotas Dushti, wherein vitiated Vata and Kapha, along with Rakta and Meda dushya, contribute to Srotorodha (obstruction), degeneration, and functional impairment of the kidneys. This case study presents a 59-year-old male with CKD, managed through an integrative Ayurvedic protocol. The treatment strategy emphasised Nidan Parivarjan (elimination of causative factors), personalised Ahar (renal-specific diet), Vihar (lifestyle regulation), Shodhana (detoxification), and Shamana (palliative therapy). Panchakarma interventions were administered alongside classical formulations. Key therapeutic herbs—Punarnava (Boerhavia diffusa) and Gokshur (Tribulus terrestris)—demonstrated diuretic, anti-inflammatory, and Rasayana properties, improving renal clearance and reducing oedema. The patient exhibited significant clinical and biochemical improvement, highlighting Ayurveda's potential in nephroprotection and holistic CKD management.

Keywords: Mutravaha Srotas Dushti; Nidana Parivarjan; Panchakarma; Rasayana, Shamana Chikitsa; Shodhana Chikitsa and Vrikk Rog

INTRODUCTION

Chronic Kidney Disease (CKD) is a progressive, irreversible decline in kidney function lasting over three months, marked by structural or functional abnormalities. It is a major global health concern, driven by rising rates of diabetes, hypertension, and ageing. CKD heightens the risk of end-stage renal disease, cardiovascular complications, and mortality, underscoring the importance of early detection and management. [1,2] Chronic kidney disease, as per KDIGO guidelines, is diagnosed when there is evidence of renal damage such as proteinuria, hematuria, imaging, or biopsy changes, or when the glomerular filtration rate remains below 60 mL/min/1.73 m^2 for over three months. It is staged from 1 to 5, ranging from mild impairment with preserved GFR to advanced kidney failure requiring dialysis or transplantation. [3,4] The major causes of chronic kidney disease are diabetic nephropathy and hypertensive nephrosclerosis, while other contributors include glomerular disorders, polycystic kidney disease, obstructive uropathy, chronic infections, and long-term use of nephrotoxic drugs. Risk is further increased by factors such as older age, obesity, smoking, family history of renal disease, and associated cardiovascular conditions. [5] The progression of chronic kidney disease occurs through a cycle of nephron loss, compensatory hyperfiltration, and subsequent glomerulosclerosis, which gradually damages renal structure and function. Chronic inflammation and ischemia contribute to tubulointerstitial fibrosis, while declining clearance of metabolic wastes leads to systemic effects such as uremia, electrolyte imbalances, anaemia, and bone mineral disorders. [6] Chronic kidney disease often remains asymptomatic in early stages and is usually detected incidentally. As it progresses, patients may develop fatigue, anorexia, weight loss, pruritus, anaemia, and renal symptoms ranging from polyuria to oliguria. Common complications include hypertension, oedema, and heart failure, along with neurological,

musculoskeletal, and gastrointestinal manifestations such as neuropathy, bone pain, nausea, and vomiting. [7] Diagnosis of chronic kidney disease involves laboratory tests, imaging, and sometimes biopsy. Essential investigations include serum creatinine, eGFR, urine analysis, and albumin-to-creatinine ratio, with additional tests for haemoglobin, calcium, phosphate, and PTH. Renal ultrasound assesses kidney structure and obstruction, while CT, MRI, or biopsy are reserved for unexplained or suspected glomerular disease. [8] Chronic kidney disease leads to several complications, most notably cardiovascular disease, which raises morbidity and mortality. Common issues include anaemia from reduced erythropoietin, mineral and bone disorders from secondary hyperparathyroidism, metabolic acidosis, electrolyte imbalances like hyperkalemia, and uremic manifestations such as encephalopathy, pericarditis, and bleeding. [9,10]

Current research in chronic kidney disease focuses on novel pharmacological and technological strategies to slow progression and improve outcomes. Advances include SGLT2 inhibitors and finerenone, which demonstrate renoprotective and cardioprotective benefits, alongside emerging complement inhibitors and podocyte-targeted therapies that reduce proteinuria and glomerular injury. [11,12,13,14] Parallel developments in xenotransplantation, bioartificial kidneys, and regenerative organoid models aim to address organ shortage and enhance renal replacement options. Additionally, biomarker discovery, multi-omics, artificial intelligence, and microbiome-targeted interventions are driving precision diagnosis, early detection, and individualised therapy. [15,16,17,18]

Chronic Kidney Disease (CKD), a progressive decline in renal function, may be correlated in *Ayurveda* with disorders arising from *Mutravaha Srotas dushti*. The kidneys, responsible for *mutra nirmana* (urine formation) and *mutravaha pravṛtti* (excretion), are closely linked to *Apana Vata* (the subtype of *Vata* governing elimination), *Rakta dhatu (*blood tissue*)*, and *Meda dhatu (*fat tissue*)*. Vitiation of *Tridosha*, predominantly *Vata* and *Kapha*, along with *Rakta* and *Meda dushya*, plays a central role in the pathogenesis. *Srotorodha* (obstruction) caused by aggravated *Kapha* and *Meda* impairs renal channels, while deranged *Vata* leads to degeneration and functional decline of nephrons. [19,20] Clinically, CKD may manifest through features described in *Ayurveda* such as *Prameha*, *Mutrakr̥cchra* (dysuria), *Mutraghata* (obstructive uropathy), and *Shotha* (oedema). Symptoms like fatigue, anorexia, oedema, oliguria, and systemic complications align with *Ojas kshaya (*depletion of vital energy*)* and *dhatu shaithilya (*weakening of tissues*)*. The involvement of *Rakta* explains anaemia, while *Asthi-Majja dhatu kshaya* (degeneration of bone and marrow tissues) accounts for bone and neurological complications. [21] Management in *Ayurveda* emphasises *Nidana parivarjana* (elimination of causative factors) along with strategies to balance *Doshas*, protect renal tissue, and enhance excretion. Therapies include *shamana oushadhi* such as *Punarnava*, *Gokshur*, *Varun* and *Guduchi* for their *mutral* (diuretic), anti-inflammatory, and *rasayana* properties. *Rasayana chikitsa* supports tissue regeneration and delays progression. *Basti karma* (therapeutic enema), particularly *Niruha* and *Anuvasana basti*, plays a crucial role in correcting *Vata* imbalance and strengthening *Mutravaha srotas*. Dietary measures emphasise *laghu* (light), low-protein, easily digestible foods, and restriction of excessive *lavana* (salt) and *guru ahara* (heavy foods). [22,23]

Thus, *Ayurveda* views CKD as a complex *srotodushti* disorder, requiring an integrative approach of *dosha shamana*, *srotoshodhana*, and *rasayana* therapy. With early intervention, *Ayurvedic* management can slow disease progression, alleviate complications, and enhance quality of life, aligning with modern objectives of nephroprotection. [24]

OBJECTIVE

The objective of this *Ayurvedic* intervention is to restore *Mutravaha Srotas* integrity, correct *Dosha* imbalance, alleviate *Srotorodha*, and promote nephroprotection through *Shodhana*, *Shamana, Rasayana*, and lifestyle modifications, thereby improving renal function, reducing complications, and enhancing overall patient well-being.

CASE

STUDY

A 59-year-old male with a one-year history of chronic kidney disease (CKD/*Vrikk Rog*) presented to Jeena Sikho Lifecare Limited, Derabassi, Punjab, on August 1, 2025. He reported dyspnea on exertion (score 7) [25], orthopnea (score 5) [25], pedal oedema (grade 4+) [26], facial oedema (grade 3+) [26], leg pain (6/10) [27], generalised weakness, frothy urine, nocturia (2–3 episodes/night) and vertigo. His past medical history was significant for longstanding hypertension (10 years), coronary artery disease and a cerebrovascular accident in February 2024. At the time of admission, the patient was not receiving any conventional (allopathic) medications. Management during the inpatient stay consisted exclusively of Ayurvedic interventions.

A comprehensive clinical evaluation, including vital signs and *Ashtasthana Pareeksha* findings, was documented in Table 1, while baseline laboratory investigations were summarised in Table 2. A 7-day inpatient *Ayurvedic* treatment protocol was initiated, comprising individualised

classical formulations, *Panchakarma* procedures, dietary modifications, and lifestyle counselling. At the end of therapy, the patient showed significant improvement in both clinical parameters and laboratory investigations.

Table 1: Vitals and *Ashtasthana Pareeksha*

Parameter	Findings
Blood Pressure	160/70 mm Hg
Pulse Rate	64 / min
Weight	55 Kg
Height	166 cm
BMI	20 (Normal)
Nadi (Pulse)	*Vataj Kaphaj*
Mala (Stool)	*Avikrit* (Normal)
Mutra (Urine)	*Phenila* (Frothy)
Jiwha (Tongue)	*Malin* (Coated)
Shabda (Voice)	*Spasht* (Clear)
Sparsha (Touch)	*Anusheetoshna* (Normal)
Akriti (Face)	*Madhyam* (Normal)
Drikk (Eyes)	*Prakrit* (Normal)

Table 2: Baseline laboratory findings

Tests	Values
Blood Urea	198.35 mg/dl
Blood Urea Nitrogen (BUN)	92.57 mg/dl
Serum Creatinine	9.49 mg/dl
Uric Acid	7.02 mg/dl
Estimated glomerular filtration rate (eGFR)	6 mL/min/1.73 m^2

The *Samprapti* (pathogenesis) and *Samprapti Ghatak* (pathogenic components) are illustrated schematically in Figures 1 and 2, respectively. [20]

TREATMENT PLAN

The patient underwent a 7-day inpatient treatment program that included personalised *Ahar-Vihar* (diet and lifestyle modifications), *Nidan Parivarjan* along with *Shodhan* and *Shaman Chikitsa*. Vital parameters were closely monitored throughout the treatment period, with daily observations summarised in Table 3. The treatment approach has been systematically outlined in Figure 1, depicting the structured framework of the *Chikitsa Krama*.

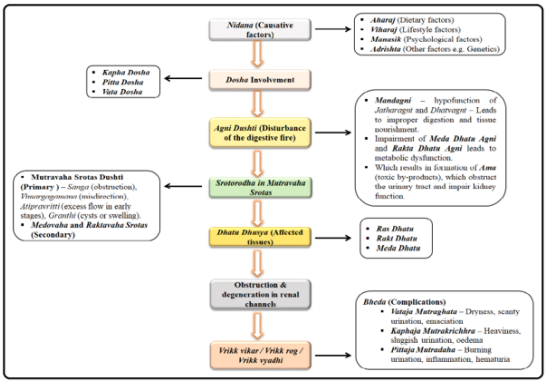

Figure 1. Figure 1: Samprapti of this case

Table 3. The vitals noted during the IPD treatment

Date	Time	Weight	Temperature	Blood Pressure	Pulse Rate	Respiration	SpO_2
01-08-2025	10:00 AM	55 Kg	98.1 °F	170/90 mm Hg	80/min	18/min	98%
	9:00 PM	-	98 °F	150/90 mm Hg	84/min	18/min	98%
02-08-2025	5:00 AM	-	98 °F	140/90 mm Hg	82/min	18/min	98%
	9:20 AM	55 Kg	98.2 °F	140/80 mm Hg	68/min	20/min	99%
	9:00 PM	-	98 °F	160/80 mm Hg	68/min	18/min	98%
03-08-2025	5:00 AM	-	98 °F	140/80 mm Hg	72/min	18/min	98%
	9:40 AM	56 Kg	98.2 °F	150/80 mm Hg	74/min	20/min	98%
	9:00 AM	-	98 °F	140/90 mm Hg	72/min	18/min	98%
04-08-2025	5:00 AM	-	98 °F	140/90 mm Hg	76/min	18/min	98%
	10:00 AM	55 Kg	98.2 °F	160/80 mm Hg	68/min	20/min	99%
	9:30 AM	-	98 °F	150/90 mm Hg	72/min	18/min	98%
05-08-2025	5:00 AM	-	98 °F	140/90 mm Hg	72/min	18/min	98%
	9:00 AM	55 Kg	98.4 °F	150/90 mm Hg	84/min	20/min	99%
	9:00 PM	-	98 °F	150/90 mm Hg	82/min	18/min	98%
06-08-2025	5:00 AM	-	98 °F	140/80 mm Hg	86/min	18/min	98%
	9:00 AM	-	96 °F	130/100 mm Hg	80/min	16/min	99%
	8:00 PM	-	98 °F	140/90 mm Hg	86/min	18/min	99%
07-08-2025	6:00 AM	-	98 °F	130/80 mm Hg	66/min	18/min	98%
	10:00 AM	-	98 °F	140/80 mm Hg	68/min	18/min	99%

I. Shaman Chikitsa

Based on the clinical evaluation, a detailed and patient-specific medication protocol was devised, as outlined in Table 4.

Table 4: *Ayurvedic* medicines prescribed

Date	Medicine	Dosage with *Anupana* (Medium)
01-08-2025, 03-08-2025 & 04-08-2025	Dr. Kidney Care Tablet	1 Tab TDS (*Adhobhakta* with *Koshna Jala*) *
	Sarvatobhadra Vati	1 Tab OD (*Adhobhakta* with *Koshna Jala*)
	Renal Support Syrup	20 ml BD (*Adhobhakta* with *Sama Matra Koshna Jala*) **
	Dr. Shuddhi Powder	Half Teaspoon HS (*Nishikala* with *Koshna Jala*) ***
	GFR Powder	1 Teaspoon BD (*Adhobhakta* with *Koshna Jala*)
	Chander Vati Tablet	2 Tab BD (*Adhobhakta* with *Koshna Jala*)
02-08-2025 & 05-08-2025	CKD Tablet	1 Tab TDS (*Adhobhakta* with *Koshna Jala*)
	Sarvatobhadra Vati	1 Tab OD (*Adhobhakta* with *Koshna Jala*)
	Renal Support Syrup	20 ml BD (*Adhobhakta* with *Sama Matra Koshna Jala*)
	Dr. Shuddhi Powder	Half Teaspoon HS (*Nishikala* with *Koshna Jala*)
	GFR Powder	1 Teaspoon BD (*Adhobhakta* with *Koshna Jala*)
	Chander Vati Tablet	2 Tab BD (*Adhobhakta* with *Koshna Jala*)
06-08-2025 & 07-08-2025	CKD Tablet	1 Tab TDS (*Adhobhakta* with *Koshna Jala*)
	Sarvatobhadra Vati	1 Tab OD (*Adhobhakta* with *Koshna Jala*)
	Renal Support Syrup	20 ml BD (*Adhobhakta* with *Sama Matra Koshna Jala*)
	Dr. Shuddhi Powder	Half Teaspoon HS (*Nishikala* with *Koshna Jala*)
	GFR Powder	1 Teaspoon BD (*Adhobhakta* with *Koshna Jala*)
	Chander Vati Tablet	2 Tab BD (*Adhobhakta* with *Koshna Jala*)
	Dr. BP Care	2 Tab BD (*Adhobhakta* with *Koshna Jala*)
Discharge	CKD Tablet	1 Tab TDS (*Adhobhakta* with *Koshna Jala*)
	GFR Powder	1 Teaspoon BD (*Adhobhakta* with *Koshna Jala*)
	Dr. Shuddhi Powder	Half Teaspoon HS (*Nishikala* with *Koshna Jala*)
	Dr. BP Care	2 Tab BD (*Adhobhakta* with *Koshna Jala*)

Adhobhakta* with *Koshna Jala - After Meals with Lukewarm Water

Adhobhakta* with *Sama Matra Koshna Jala - After Meals with Equal Amount of Lukewarm Water

Nishikala* with *Koshna Jala - At Bedtime with Lukewarm Water

I. Shodhan Chikitsa

After comprehensive clinical evaluation, an individualised *Panchakarma* protocol was designed for the patient. The treatment plan incorporated therapies including alternate-day *Matra Basti* and *Kashaya Basti*, *Vrikka Basti,*

Shirodhara, and *Awegah Swedana*, carefully selected to target the underlying pathology and optimise therapeutic outcomes.

1. *Matra Basti* with *Gokshur* and *Punarnava* [28]

Preparation of *Sneha*	A combination of *Gokshur and Punarnava* oil was processed into *Siddha Sneha* using the classical *Sneha Paka* method as per Ayurvedic protocol.
Pre-Procedure (*Purv karma*)	The patient was advised a light diet the day prior, followed by mild *Abhyanga* and *Swedan* to enhance the procedure's efficacy.
Main Procedure (*Pradhan karma*)	The patient was positioned in the left lateral posture, and a sterilised *Basti Netra* was attached to the *Basti Putaka.* Approximately 90 ml of lukewarm oil was gently administered rectally.
Post Procedure (*Paschat Karma*)	The patient was advised to retain the *Sneha* as tolerated, followed by a light warm diet and avoidance of cold, exertion, and stress.

2. *Kashaya Basti* with *Gokshu*r and *Punarnava* [29]

Preparation of *Sneha*	A decoction was prepared by boiling equal parts of coarse *Gokshur* and *Punarnava* powder in 16 times water until reduced to one-fourth, then filtering and using warm.
Pre-Procedure (*Purv karma*)	The patient was positioned in the left lateral posture with the left leg extended and the right leg flexed after obtaining consent, ensuring a light diet, stable vitals, and evacuation of the bladder and bowel.
Main Procedure (*Pradhan karma*)	Oil was applied locally over the anal region, and the prepared basti mixture was filled into a sterile *basti* syringe. The nozzle was gently inserted into the rectum, and the medicine was administered slowly while ensuring the patient remained relaxed and comfortable.
Post Procedure (*Paschat Karma*)	The patient retained the basti for the required duration, evacuated naturally, was given a light diet, and the procedure outcomes were recorded.

3. *Vrikka Basti* with *Punarnava* [30]

Pre-Procedure (*Purv Karma*)	The patient was assessed for *Vrikka Basti*, positioned in the prone posture, and a leak-proof dough ring made of black gram flour was placed over the cleaned and gently massaged lumbar region.
Main Procedure (*Pradhan Karma*)	*Punarnava* oil was gently warmed to body temperature and poured into the dough ring placed over the lumbar *(Vrikk)* region until the cavity was adequately filled. The oil was retained for approximately 30–40 minutes, with temperature maintained by reheating or replacing the oil as required during the procedure.
Post-Procedure (*Paschat Karma*)	After retention, the oil was removed, the area cleansed, and the patient was advised to rest with a light, warm diet.

4. *Shirodhara* with *Brahmi* oil [31]

Preparation	The *Brahmi* oil was gently warmed using a water bath to approximately body temperature (39–40°C).
Pre-Procedure (*Purv Karma*)	The patient was positioned supine on the *Shirodhara* table, and the eyes and ears were protected using cotton. A 5–10-minute gentle massage of the scalp, forehead, and shoulders was performed using *Brahmi* oil to facilitate relaxation.
Main Procedure (*Pradhan Karma*)	The *Shirodhara* vessel was positioned approximately 5 inches above the forehead, allowing a continuous stream of lukewarm *Brahmi oil* to flow steadily over the *Ajna Chakra* (forehead region). The oil was rhythmically poured from temple to temple for 45 minutes at a consistent temperature.
Post-Procedure (*Paschat Karma*)	The patient was rested for 15 minutes post-procedure; excess oil was removed with warm towels, followed by a warm herbal bath, and advised a light diet and rest for the day.

5. *Awegah Sweden* [32]

Pre-Procedure (*Purv karma*)	The patient was assessed for suitability, and a warm *Ayurvedic* decoction was prepared at 39 - 42°C and poured into a tub to immerse the lower back and pelvic region.

Main Procedure (*Pradhan karma*)	The patient sat comfortably in the tub with the pelvic region immersed in warm decoction for 15–20 minutes, and the temperature was maintained throughout.
Post Procedure (*Paschat Karma*)	The body was gently dried with a clean towel, and the patient was advised to rest and consume light food with warm water.

I. Ahar

A targeted dietary strategy, particularly the adoption of a renal-specific nutritional plan, is essential in managing and decelerating the progression of Chronic Kidney Disease (CKD).[33] In this case, a meticulously tailored diet was formulated to meet the patient's individual clinical requirements and support overall therapeutic outcomes.

a) *Pathya* (allowed) [34]

· Fresh and homemade food

· Millet diet

b) *Apathya* (Avoid): [34]

· Wheat, Packed food, Refined food, Diary food/ Animal food, Coffee and Tea

· Never eat after 8 PM

· In solid take small bite and chew 32 times

· In liquid, take a sip and drink slowly

c) Hydration [35]

· Boil 2 litres of water, reduce it to half (1 litre) and consume

· Alkaline water - 3-4 times a day (1 litre)

· Herbal tea (32 herbs tea)

· Living water

· Turmeric water

d) Millet Meal [36]

· Foxtail (*Setaria italica*)

· Barnyard (*Echinochloa esculenta*)

· Little (*Panicum sumatrense*)

· Kodo (*Paspalum scrobiculatum*)

· Browntop (*Urochloa ramose*)

· *Mota Anaj* – Sorghum *(Sorghum bicolour)*

e) Special Instructions[35]

· Brisk walking for 30 min barefoot

· Sit in sunlight for 1 hour

· 10 min slow walk after every meal

· One day fasting is recommended

· Get quality sleep (8 hours)

· Cook millets in steel cookware using only mustard oil.

· Sit in *Vajrasana* after every meal

f) Meal Structure[35]

IV. Vihar [35]

· **Meditation:** The patient was advised to incorporate a one-hour daily meditation practice as part of the prescribed therapeutic protocol.

· ***Yoga*:** The patient was recommended to practice *Sukshm Pranayam* and *Sukhasan* for 40 minutes daily.

· **Sleep:** The patient was advised to maintain 6 to 8 hours of continuous and restorative sleep each night.

· **Walking:** The patient was instructed to perform a daily 30-minute brisk walk without footwear.

· **Daily Routine:** The patient was advised to follow a structured and disciplined daily regimen.

OBSERVATIONS & RESULTS

Throughout the course of treatment, the patient demonstrated consistent clinical improvement, as evidenced by quality-of-life assessments indicating substantial enhancements in both physical and psychological domains. Symptomatic relief was progressively achieved, with a gradual resolution of presenting complaints. A comparative analysis of symptomatology pre- and post-treatment is provided in Table 5. Additionally, laboratory evaluations revealed significant decreases in key biochemical parameters, including serum creatinine, blood urea, blood urea nitrogen (BUN) and uric acid levels, as detailed in Table 6. The patient demonstrated marked clinical improvement upon completion of the treatment course.

Table 6: Comparative Analysis of Symptoms Pre- and Post-Treatment

Symptoms before treatment	Symptoms after treatment
Dyspnea during exertion - Score: 7	Improved - Score: 1
Orthopnea - Score: 5	Improved - Score: 1
Pedal Oedema - Score: 4+	Improved - Score: 1
Facial Oedema - Score: 3+	Improved - Score: 1
Pain in legs - Score: 6/10	Relieved - Score: 0/10
General Weakness	Relieved
Frothy Urine	Relieved
Nocturia (2-3 times)	Relieved
Vertigo	Relieved

Table 7: Pre and Post – treatment laboratory evaluations

Tests	Values	
	02-08-2025	06-08-2025
Blood Urea	198.35 mg/dl	151.76 mg/dl
Blood Urea Nitrogen (BUN)	92.57 mg/dl	70.82 mg/dl
Serum Creatinine	9.49 mg/dl	8.0 mg/dl
Uric Acid	7.02 mg/dl	6.93 mg/dl

DISCUSSION

A 59-year-old male with a known history of Chronic Kidney Disease (CKD/*Vrikk Rog*) was admitted to Jeena Sikho Lifecare Ltd. Hospital for *Ayurvedic* management. On presentation, he reported dyspnea on exertion (score 7), orthopnea (score 5), pedal oedema (score 4+), facial oedema (score 3+), leg pain (6/10), generalised weakness, frothy urine, nocturia (2–3 episodes/night) and vertigo. His medical history was notable for long-standing hypertension, coronary artery disease, and a prior cerebrovascular accident.

A detailed assessment, including vital parameters, *Ashtasthana Pareeksha* and laboratory investigations, was performed to guide treatment planning. Based on these findings, a comprehensive integrative protocol was implemented, emphasising *Nidan Parivarjan* (removal of etiological factors) and individualised interventions in *Ahar* (diet), *Vihar* (lifestyle recommendations), *Shaman Chikitsa* (*Ayurvedic* medicines) and *Shodhan Chikitsa* (detoxification procedures).

1. Nidan Parivarjan

As part of the treatment protocol, the patient was advised to avoid heavy, oily, fermented, and excessively spicy foods. Dietary guidance emphasised strict control of blood glucose and blood pressure, elimination of nephrotoxic agents, and adherence to a renal-specific diet with regulated intake of salt, protein, and potassium. Recommendations also included maintaining adequate hydration, avoiding strenuous physical activity, abstaining from alcohol and tobacco, and following a disciplined daily routine. This comprehensive approach aligns with the *Ayurvedic* principle of *Nidan Parivarjan*, aimed at slowing disease progression, preserving renal function, and improving overall clinical outcomes. [33]

2. Samprapti

The *Samprapti* (pathogenesis) and *Samprapti Ghatak* (pathogenic components) are illustrated schematically in Figures 1 and 2, respectively. The *Samprapti* (pathogenesis) of this case is illustrated in Figure 1, detailing the etiopathological progression of *Vrikk Rog* (kidney disorders). The chart outlines the *Ayurvedic* pathogenesis of chronic kidney disease (*Vrikk Vikar/Vrikk Rog*), starting from *Nidan* (causative factors) such as improper diet, lifestyle, psychological stress, and genetics. These factors disturb the balance of the *Doshas* (*Kapha*, *Pitta, Vata*), leading to *Agni Dushti* (digestive fire impairment), which disrupts *Strotas* (body channels), particularly the *Mutravah Strotas* (urinary channels). This cascade affects the *Dhatus* (tissues), especially *Ras, Rakta*, and *Meda,* resulting in obstruction, degeneration, and ultimately kidney pathology. The disease may present with complications like dryness, burning urination, inflammation, and swelling, depending on the dominant *Dosha*. [20]

3. Ahar

The dietary plan focused on light, easily digestible, and nutritionally balanced meals distributed across six intervals throughout the day. The regimen began with *tulsi*–ginger-infused water or herbal tea in the early morning, followed by seasonal fruits and millet-based preparations for breakfast. Midday and evening snacks comprised freshly prepared vegetable juices such as beetroot or leafy greens, along with soaked almonds. Main meals (lunch and dinner) included steamed salads, fermented millet dishes, and green vegetable soups prepared with low-potassium ingredients like spinach, zucchini, and carrots. Designed to enhance digestion, aid detoxification, and balance the *doshas* while supporting renal health, this structured approach also emphasised early meal completion before 8:00 PM and the use of health-promoting beverages such as herbal teas, turmeric-infused water, and naturally energised water. [34,35]

4. Vihar

The patient was guided to adopt targeted lifestyle modifications to support overall well-being. This included practising daily meditation to alleviate stress and improve mental focus, alongside a tailored *yoga* regimen to enhance physical flexibility, relaxation, and emotional balance. Emphasis was also placed on ensuring 6–8 hours of quality, uninterrupted sleep and maintaining a structured, consistent daily routine to promote holistic health and equilibrium. [35]

5. Chikitsa

A comprehensive therapeutic plan was formulated by the physician, encompassing both *Shodhan* and *Shaman Chikitsa*. Based on a detailed clinical evaluation, a personalised *Panchakarma* protocol was designed, including interventions such as *Matra Basti, Kashaya Basti*, *Vrikk Basti, Shirodhara*, and *Awegah Swedan* to target the underlying pathology and restore systemic homeostasis.

· *Basti* was administered using *Gokshur* and *Punarnava* as

the therapeutic base. *Gokshur* (*Tribulus terrestris*) and *Punarnava* (*Boerhavia diffusa*) act as diuretics with nephroprotective, anti-inflammatory, and antioxidant properties, supporting renal clearance, reducing oedema, and preserving kidney function in CKD. [37,38]

· *Shirodhara* enhances cerebral circulation, improving oxygen and nutrient delivery to brain tissues. In Chronic Kidney Disease (CKD), where patients often suffer from anxiety, cognitive disturbances, and sleep disorders due to toxin accumulation, *Brahmi* oil (rich in bacosides) helps regulate stress, lower cortisol, activate the parasympathetic system, and promote restorative sleep. [39]

· *Awegah Swedan* promotes vasodilation, improves circulation, relieves musculoskeletal discomfort, and induces sweating to aid detoxification and overall therapeutic benefit. [32]

A comprehensive overview of the *Ayurvedic* formulations used in this case is provided in Table 8. *Gokshur* and *Punarnava* are among the principal herbs commonly incorporated in *Ayurvedic* formulations. Their therapeutic efficacy is determined by their *Ras Panchak* – a comprehensive analysis of taste (*Rasa*), qualities (*Guna*), potency (*Virya*), post-digestive effect (*Vipaka*), and specific action (*Prabhava*) – as follows. [41]

· *Gokshur* (*Tribulus terrestris*) is characterised by the *Rasa* (tastes) *Madhura* (sweet), *Kashaya* (astringent), and *Tikta* (bitter). Its *Guna* (qualities) are *Laghu* (light) and *Ruksha* (dry), with *Ushna Virya* (hot potency) and *Madhura* (sweet) post-digestive effect (*Vipaka*). It holds a specific *Prabhava* (unique action) as a *Mutravirechaka* (diuretic), *Shothahar* (anti-inflammatory) and *Rasayana* (rejuvenative) herb. [37]

· *Punarnava* (*Boerhavia diffusa*) has a *Rasa* (taste) that is *Tikta* (bitter), *Kasaya* (astringent), and *Madhura* (sweet), with *Guna* (qualities) that are *Laghu* (light) and *Ruksha* (dry). Its *Virya* (potency) is *Ushna* (hot), and its *Vipaka* (post-digestive effect) is *Madhura* (sweet). Its *Prabhava* (special actions) include *Mutrala* (diuretic), *Shothahar* (anti-swelling), and *Rasayan* (rejuvenative) effects, which help reduce fluid retention, enhance kidney function, and promote overall vitality. [38]

Table 7: Detailed description of medicines prescribed

Medicine	Ingredients	Therapeutic Effects
Dr. Kidney Care Tablet	***Gokshur*** *(Tribulus terrestris),* ***Apamarga*** *(Achyranthes aspera),* ***Yashtimadhu*** *(Glycyrrhiza glabra),* ***Punarnava*** *(Boerhavia diffusa),* ***Varun Chhaal*** *(Crataeva nurvala), and* ***Sheetal Chini*** *(Piper cubeba)*	*Mutravaha Srotas Shodhan* (cleansing of the urinary channels), *Shodhan* (detoxification), *Vedana Sthapan* (pain-relieving action) and *Rasayan* (rejuvenation therapy)
Sarvatobhadra Vati	***Swarn Bhasm*** (Gold calx), ***Rajat Bhasm*** (Silver calx), ***Abrak Bhasm*** (Purified mica calx), ***Loh Bhasm*** (Iron calx), ***Shilajeet*** (Asphaltum), ***Shuddh Gandhak*** (Purified sulfur), ***Swarn Makshik Bhasm*** (Chalcopyrite or copper-iron sulfide calx), ***Varuna Kwath*** (*Crataeva nurvala* decoction).	*Balya* (strengthens) and *Mutravah Srotas Shodhak* and *Vrikk Vardhak* (improves overall kidney wellness)
Renal Support Syrup	***Nimba*** *(Azadirachta indica),* ***Arjuna*** *(Terminalia arjuna),* ***Gokshur*** *(Tribulus terrestris),* ***Haritaki*** *(Terminalia chebula),* ***Ashwagandha*** *(Withania somnifera),* ***Karanja*** *(Pongamia pinnata),* ***Chirayata*** *(Swertia chirayita).*	*Mutrala* (diuretic), *Mutrakrichrahar Karma* (alleviation of dysuria), *Mutraghatahar Karma* (relief from urinary obstruction) and *Shothahar Karma* (anti-inflammatory effect)

Dr. Shuddhi Powder	***Trikatu*** *(Piper nigrum, Piper longum* and *Zingiber officinale),* ***Triphala*** *(Emblica officinalis, Terminalia chebula* and *Terminalia bellirica),* ***Nagarmotha*** *(Cyperus rotundus),* ***Vaya Vidang*** *(Embelia ribes),* ***Kshudra Ela*** *(Elettaria cardamomum),* ***Tej Patta*** *(Cinnamomum tamala),* ***Lavang*** *(Syzygium aromaticum),* ***Nishoth*** *(Operculina turpethum),* ***Saindhava Lavana,*** ***Dhanyaka*** *(Coriandrum sativum),* ***Pippali-Mool*** *(Piper longum root),* ***Jeerak*** *(Cuminum cyminum),* ***Nagkesar*** *(Mesua ferrea),* ***Amarvati*** *(Achyranthes aspera),* ***Dadima*** *(Punica granatum),* ***Brihat Ela*** *(Amomum subulatum),* ***Hing*** *(Ferula assafoetida),* ***Kanchnar*** *(Bauhinia variegata),* ***Ajmoda*** *(Trachyspermum ammi),* ***Sajji-kshar,*** ***Pushkarmool*** *(Inula racemosa),* ***Mishri*** *(Saccharum officinarum)*	*Shodhan* (therapeutic purification), *Ama Pachan* (elimination of metabolic toxins)
GFR Powder	***Bhoomi Amalaki*** *(Phyllanthus niruri),* ***Brihat Haritaki*** *(Terminalia chebula),* ***Vibhitaki*** *(Terminalia bellirica),* ***Kasni*** *(Cichorium intybus),* ***Makoy*** *(Zea mays),* ***Punarnava*** *(Boerhavia diffusa),* ***Gokshur*** *(Tribulus terrestris).*	*Strotoshodhan*, thus increasing glomerular filtration rate.
Chander Vati Tablet	***Kapoor Kachri*** *(Hedychium spicatum),* ***Vacha*** *(Acorus calamus),* ***Motha*** *(Cyperus rotundus),* ***Kalmegh*** *(Andrographis paniculata),* ***Guduchi*** *(Tinospora cordifolia),* ***Devdaru*** *(Cedrus deodara),* ***Desi Haridra*** *(Curcuma longa),* ***Atees*** *(Aconitum heterophyllum),* ***Daru Haridra*** *(Berberis aristata),* ***Pippali - mool*** *(Piper longum root),* ***Chitrak*** *(Plumbago zeylanica),* ***Dhanyaka*** *(Coriandrum sativum),* ***Haritaki*** *(Terminalia chebula),* ***Vibhitaki*** *(Terminalia bellirica),* ***Amalaki*** *(Phyllanthus emblica),* ***Chavya*** *(Piper chaba),* ***Vaya vidang*** *(Embelia ribes),* ***Peepal*** *(Ficus religiosa),* ***Krishna Marich*** *(Piper nigrum),* ***Shunthi*** *(Zingiber officinale dried ginger),* ***Gaj Pippali*** (*Scindapsus officinalis),* ***Swarn Makshik Bhasam*** (Gold iron pyrite ash - Ayurvedic preparation), ***Sajji Kshar*** (Potassium carbonate - traditional alkali preparation), ***Saindhava Lavan*** (Rock salt), ***Krishna Lavana*** *(Black salt),* ***Kshudra Ela*** *(Elettaria cardamomum),* ***Dalchini*** *(Cinnamomum verum),* ***Tejpatra*** *(Cinnamomum tamala),* ***Danti*** *(Baliospermum montanum),* ***Nishoth*** *(Operculina turpethum),* ***Vanslochan*** *(Bamboo silica),* ***Loh Bhasam*** (Iron ash - Ayurvedic preparation), ***Shilajeet*** *(Asphaltum punjabinum),* ***Guggulu*** *(Commiphora wightii).*	*Mutrala* (diuretic), *Ojovardhaka* (enhances vitality), *Deepan* (increases appetite), *Pachan* (aids digestion) and *Agnivardhaka* (improves digestive fire)

CKD Tablet	***Pashanbhed*** *(Bergenia ciliata),* ***Varun*** *(Crataeva nurvala),* ***Punarnava*** *(Boerhavia diffusa),* ***Gokshur*** *(Tribulus terrestris),* ***Apamarg*** *(Achyranthes aspera),* ***Haridra*** *(Curcuma longa),* ***Charila*** *(Embelia ribes),* ***Kulthi*** *(Dolichos biflorus),* ***Haritaki*** *(Terminalia chebula),* ***Bhumi Amalaki*** *(Pyrrosia piloselloides),* ***Guduchi*** *(Tinospora cordifolia),* ***Shitalchini*** *(Vernonia cinerea),* ***Anantmool*** *(Hemidesmus indicus),* ***Khas*** *(Vetiveria zizanoides),* ***Yava kshar*** (Alkaline substance, botanical origin unclear), ***Muli Kshar*** *(Raphanus sativus),* ***Kalmi Shora*** (Sodium bicarbonate), ***Sajji Kshar*** (Traditional alkaline substance, botanical origin unclear), ***Shilajeet*** (Asphaltum), ***Hazrool Yahood*** (Silicon dioxide), ***Shwet Parpati*** (Mercury-based preparation in Ayurvedic medicine).	*Mutrala* (promotes urination), *Pittashamana* (reduces excess bile), and *Yakrit Uttejaka* (stimulates liver function).
Dr. BP Care	***Shankh-Pushpi*** *(Convolvulus pluricaulis),* ***Shatavari*** *(Asparagus racemosus),* ***Ashwagandha*** *(Withania somnifera),* ***Brahmi*** *(Bacopa monnieri),* ***Vacha*** *(Acorus calamus Linn),* ***Sarpagandha*** *(Rauvolfia serpentina),* ***Jeeraka*** *(Cuminum cyminum),* ***Guduchi*** *(Tinospora cordifolia),* ***Malabar nut*** *(Adhatoda vasica),* ***Jatamansi*** *(Nardostachys jatamansi)* and ***Muktha Pishti*** (Pearl powder)	*Manas Shamana* (Mind-calming action), *Raktachaap Shaman* (blood pressure stabilising effect) and *Nidrajanan* (sleep-inducing property).

FUTURE RESEARCH ASPECTS

A key direction for future research in *Ayurvedic* management of chronic kidney disease (CKD) is to explore the molecular mechanisms through which traditional formulations support renal function. Although herbs such as *Punarnava, Gokshur, Haritaki, Shilajeet*, and *Vibhitaki* are well established in classical kidney therapies, detailed scientific investigations clarifying their impact on critical biochemical pathways in CKD are still limited. [41]

Future studies could include:

1. Pharmacokinetic and pharmacodynamic investigations: This study seeks to evaluate the pharmacokinetics of *Ayurvedic* herbs used in CKD management, including their absorption, distribution, metabolism, and excretion. Understanding these processes may enable their rational integration into modern clinical practice. [42]

2. Clinical trials: Well-structured randomised controlled trials (RCTs) assessing the safety and efficacy of *Ayurvedic* interventions in CKD, particularly in stages 3–5, are essential to generate strong evidence and clarify their potential benefits alongside or beyond conventional therapies. [43]

3. Biomarker discovery and validation: Future investigations should focus on identifying specific biomarkers that can objectively reflect the efficacy of *Ayurvedic* interventions, thereby enhancing disease monitoring and facilitating precise evaluation of therapeutic outcomes in CKD patients. [44]

4. Combination therapies: Exploring the synergistic potential of combining *Ayurvedic* therapies with conventional pharmacological treatments may enable the development of more comprehensive and integrative strategies for managing chronic kidney disease. [45]

5. Gut microbiome studies: *Ayurveda* emphasises the importance of digestion and metabolic equilibrium. Future research could explore how *Ayurvedic* interventions influence the gut microbiome and their potential role in renal protection, given the growing evidence linking microbiome dysbiosis with the progression of chronic kidney disease. [46]

CONCLUSION

This case study highlights the efficacy of an integrative *Ayurvedic* approach in the management of Chronic Kidney Disease (CKD). By addressing *Mutravaha Srotas Dushti* through a comprehensive protocol involving *Nidana Parivarjan* (elimination of etiological factors), *Shodhana* (detoxification), *Shamana* (palliative therapy), and *Rasayana* interventions, significant clinical and biochemical improvements were achieved. *Panchakarma* procedures, alongside the use of nephroprotective herbs such as *Punarnava (Boerhavia diffusa)* and *Gokshur (Tribulus terrestris)*, effectively enhanced renal clearance

and supported systemic rejuvenation. The patient's favourable response underscores *Ayurveda*'s potential in slowing CKD progression, alleviating complications and improving quality of life, aligning with contemporary nephroprotective goals through a holistic and patient-centred therapeutic paradigm.

Clinical

· The patient demonstrated significant symptomatic improvement throughout the treatment period.

· **Dyspnea on exertion** improved markedly, **decreasing from score 7 to score 1**, while **orthopnea reduced from score 5 to score 1**.

· **Pedal oedema (score 4) and facial oedema (score 3) both subsided to grade 1.**

· **Leg pain, initially scored 6, was completely resolved.**

· **Generalised weakness and vertigo were notably alleviated**, and urinary symptoms, including frothy urine and nocturia, also normalised.

Laboratory

· Laboratory findings correlated well with the documented clinical improvements.

· **Serum creatinine levels** demonstrated a progressive reduction from **9.49 mg/dL to 8.0 mg/dL** over the course of treatment.

· **Blood urea levels declined gradually from 198.35 mg/dL to 151.76 mg/dL** following *Ayurvedic* intervention.

· **Blood Urea Nitrogen (BUN) decreased from 92.57 mg/dL to 70.82 mg/dL.**

· **Serum uric acid levels reduced progressively from 7.02 mg/dL to 6.93mg/dL.**

This case suggests that a personalized Ayurvedic management approach may contribute to symptomatic improvement and favorable short-term biochemical changes in patients with CKD. However, larger controlled studies with longer follow-up are required to establish its efficacy and long-term safety.

Study Limitations

Single-patient case report findings cannot be generalized.

Absence of a control group precludes attribution of improvements solely to the Ayurvedic intervention.

Short follow-up duration limits assessment of long-term renal outcomes and disease progression.

Concurrent supportive conventional management may have influenced the observed clinical and biochemical improvements.

Post-treatment eGFR and long-term follow-up data were unavailable, limiting assessment of sustained renal function improvement.

Patient Consent

Written informed consent was obtained from the patient for publication of this case report and the accompanying laboratory data. The patient was informed that all personal identifiers would be removed to maintain confidentiality and anonymity. The patient reviewed and approved the publication of the clinical details.

Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this case report. The authors have no financial or personal relationships that could have inappropriately influence the work reported in this manuscript.

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Ethics Statement

Institutional Ethics Committee approval was not required for this single-patient case report in accordance with institutional policy and applicable reporting guidelines. Written informed consent for publication was obtained from the patient.

Author Contributions

Acharya Manish: Conceptualization, funding acquisition, resource provision, clinical supervision, overall project administration, and critical review of the manuscript.

Dr. Richa: Study conceptualization and design, literature review, data collection and analysis, interpretation of findings, manuscript drafting and revision, reference management, and corresponding author responsibilities.

Dr. Ankit Sharma: Patient diagnosis, clinical assessment, patient management, clinical data acquisition, and manuscript review.

Dr. Tanu Rani: Literature search, data compilation, manuscript editing, and review of the scientific content.

Prabha Chandrasekharan: Clinical documentation, data collection, reference management, manuscript formatting, and manuscript review.

All authors critically reviewed the manuscript, approved the final version, and agree to be accountable for all aspects of the work.

Data Availability Statement

All data generated or analyzed during this study are included in this published article. Additional anonymized data may be provided upon reasonable request while maintaining patient confidentiality.

LAB REPORT

1. Before *Ayurvedic* intervention (02-08-2025)

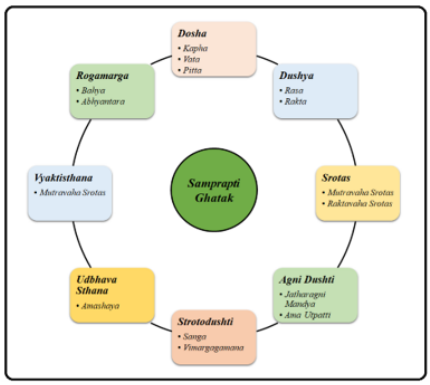


Figure 2. Figure 2: Samprapti Ghatak of Vrikk rog (CKD)

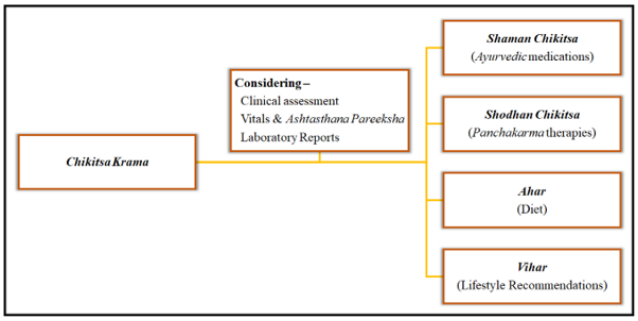
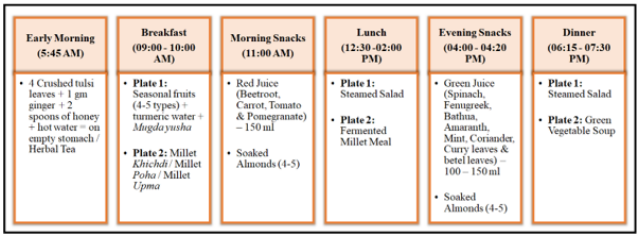
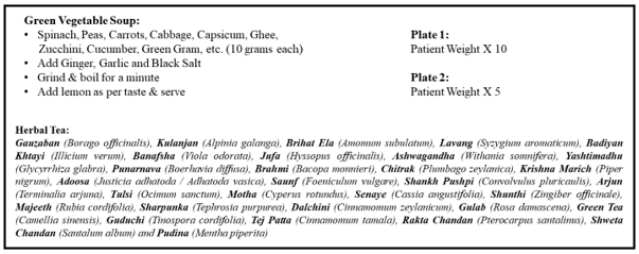


Figure 3. Figure 1: Chikitsa Krama of this case



Early Morning (5:45 AM)	Breakfast (09:00 - 10:00 AM)	Morning Snacks (11:00 AM)	Lunch (12:30 -02:00 PM)	Evening Snacks (04:00 - 04:20 PM)	Dinner (06:15 - 07:30 PM)
• 4 Crushed tulsi leaves + 1 gm ginger + 2 spoons of honey + hot water = on empty stomach / Herbal Tea	• **Plate 1:** Seasonal fruits (4-5 types) + turmeric water + *Mugdayusha* • **Plate 2:** Millet *Khichdi* / Millet *Poha* / Millet *Upma*	• Red Juice (Beetroot, Carrot, Tomato & Pomegranate) – 150 ml • Soaked Almonds (4-5)	• **Plate 1:** Steamed Salad • **Plate 2:** Fermented Millet Meal	• Green Juice (Spinach, Fenugreek, Bathua, Amaranth, Mint, Coriander, Curry leaves & betel leaves) – 100 – 150 ml • Soaked Almonds (4-5)	• **Plate 1:** Steamed Salad • **Plate 2:** Green Vegetable Soup



Green Vegetable Soup:

- Spinach, Peas, Carrots, Cabbage, Capsicum, Ghee, Zucchini, Cucumber, Green Gram, etc. (10 grams each)
- Add Ginger, Garlic and Black Salt
- Grind & boil for a minute
- Add lemon as per taste & serve

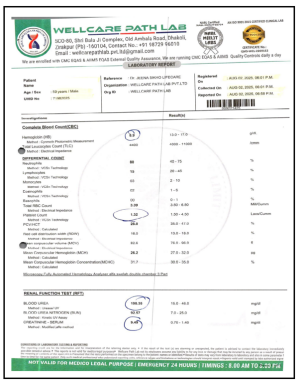
Plate 1:
Patient Weight X 10

Plate 2:
Patient Weight X 5

Herbal Tea:

Gauzaban *(Borago officinalis),* ***Kulanjan*** *(Alpinia galanga),* ***Brihat Ela*** *(Amomum subulatum),* ***Lavang*** *(Syzygium aromaticum),* ***Badiyan Khtayi*** *(Illicium verum),* ***Banafsha*** *(Viola odorata),* ***Jufa*** *(Hyssopus officinalis),* ***Ashwagandha*** *(Withania somnifera),* ***Yashtimadhu*** *(Glycyrrhiza glabra),* ***Punarnava*** *(Boerhavia diffusa),* ***Brahmi*** *(Bacopa monnieri),* ***Chitrak*** *(Plumbago zeylanica),* ***Krishna Marich*** *(Piper nigrum),* ***Adoosa*** *(Justicia adhatoda / Adhatoda vasica),* ***Saunf*** *(Foeniculum vulgare),* ***Shankh Pushpi*** *(Convolvulus pluricaulis),* ***Arjun*** *(Terminalia arjuna),* ***Tulsi*** *(Ocimum sanctum),* ***Motha*** *(Cyperus rotundus),* ***Senaye*** *(Cassia angustifolia),* ***Shunthi*** *(Zingiber officinale),* ***Majeeth*** *(Rubia cordifolia),* ***Sharpunka*** *(Tephrosia purpurea),* ***Dalchini*** *(Cinnamomum zeylanicum),* ***Gulab*** *(Rosa damascena),* ***Green Tea*** *(Camellia sinensis),* ***Guduchi*** *(Tinospora cordifolia),* ***Tej Patta*** *(Cinnamomum tamala),* ***Rakta Chandan*** *(Pterocarpus santalinus),* ***Shweta Chandan*** *(Santalum album) and* ***Padina*** *(Mentha piperita)*

Figure 5. 1. Matra Basti with Gokshur and Punarnava [28]



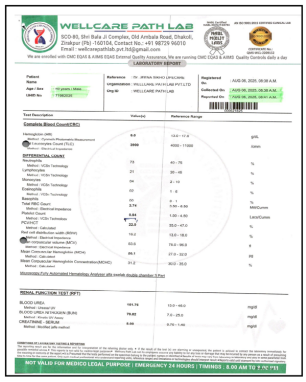


Figure 8. 2. After Ayurvedic treatment (06-08-2025)

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