

Case Study

An Ayurvedic Approach to Vrikk Rog: Case Study of Chronic Kidney Disease Management in a Pediatric Patient

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ABSTRACT

Chronic Kidney Disease (CKD), described in *Ayurveda* as *Vrikk Rog* and *Mutravah Srotas Vyadhi*, is attributed to the vitiation of *Vata* and *Kapha doshas*, along with the disturbance of *Rakta* and *Medadhatus*. This case study presents a 12-year-old male diagnosed with CKD, managed at the Jeena Sikho Lifecare Limited Clinic in Bhagalpur through a personalised *Ayurvedic* regimen. Treatment included specific *Ayurvedic* formulations, dietary modifications, and *dosha-balancing* interventions targeting *Apana Vata* and urinary obstructions. The patient demonstrated progressive clinical improvement, with notable relief in symptoms such as *shoth* (oedema), *Mutravikara* (urinary difficulty), *Klama* (fatigue), and respiratory discomfort. Laboratory findings corroborated clinical recovery, including a significant reduction in serum creatinine. *Ayurvedic* management, focusing on detoxification, metabolic correction, and rejuvenation, was found effective in improving both subjective well-being and objective health markers. This case supports the potential role of integrative *Ayurvedic* approaches in the supportive management of pediatric CKD.

Introduction

Chronic Kidney Disease (CKD) is a long-term condition where kidney function gradually declines, impairing waste removal, fluid balance, and electrolyte regulation. As it worsens, it can lead to serious issues like cardiovascular disease, anaemia, and kidney failure. CKD is a major global health concern due to its widespread impact, high death rates, and economic strain on healthcare systems. [1] CKD affects around 10% of people worldwide, especially in low- and middle-income countries, and often goes undetected until advanced stages. Major risk factors include diabetes, high blood pressure, heart disease, obesity, and family history. Diabetes is the leading cause, responsible for about 40% of new ESRD cases. Unhealthy lifestyle habits like poor

diet, smoking, and inactivity also increase the risk. [2] CKD is divided into five stages based on glomerular filtration rate, from mild damage (Stage 1) to kidney failure (Stage 5). With progressive decline in renal function, accumulation of nitrogenous wastes, electrolyte disturbances, fluid overload resulting in oedema, pulmonary congestion, and hypertension, along with metabolic by-products, leads to clinical manifestations such as fatigue, swelling, and systemic imbalances. Over time, scarring damages kidney tissue further, and complications such as bone disorders, heart disease, and infections may develop. [3] CKD is identified through blood and urine investigations that assess glomerular filtration rate (GFR) and albumin excretion levels, with imaging or biopsy for further evaluation. Early detection helps slow progression. Treatment focuses on managing blood pressure and glucose, adjusting diet, avoiding harmful drugs, and using ACE inhibitors or ARBs to protect kidney function. [4] In advanced cases, dialysis or kidney transplantation becomes necessary. Haemodialysis and peritoneal dialysis are common renal replacement

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therapies, but they are associated with reduced quality of life and high costs. Kidney transplantation, while more cost-effective long-term, is limited by donor availability. [5]

Recent studies on Chronic Kidney Disease (CKD) have enhanced insights into its underlying mechanisms, early detection methods, and individualised treatment approaches. Research on emerging biomarkers and genetic factors, such as APOL1 variants, has supported improved risk assessment and personalised, genotype-based therapies. [6] Furthermore, the gut microbiome has been linked to CKD progression through the generation of uremic toxins, and modifying the microbiota is being explored as a promising supportive treatment strategy. [7] Emerging regenerative therapies, such as mesenchymal stem cell treatment, are under investigation for their potential to reduce inflammation and promote tissue repair in kidney injury. [8]

In *Ayurveda*, Chronic Kidney Disease (CKD) is not considered a single, defined disorder but is interpreted through the imbalance of *doshas* and associated symptoms. It is mainly related to *Vrikka rog* (kidney diseases) and *Mutravaha srotas vyadhi* (disorders of the urinary system). The condition often involves an aggravation of *Vata dosha*, particularly *Apana Vata*, which governs urinary functions, along with an accumulation of *Kapha dosha* that leads to obstruction in the urinary channels (*srotorodha*). Additionally, imbalances in *Rakta* (blood) and *Meda* (fat) *dhatu*s disrupt metabolism and contribute to disease progression. In Ayurvedic literature, CKD is also correlated with conditions such as *Prameha* (a spectrum of urinary disorders, including diabetes) and *Mutrakricchra* (dysuria or painful micturition). [9] Contributing etiological factors include inappropriate dietary habits (*Ahar*), lack of physical activity (*Vihar*), mental stress, and excessive consumption of processed or incompatible foods. These factors collectively result in progressive deterioration of renal structures, particularly affecting *Rakta*, *Meda*, and *Mutravah Srotas*, manifesting clinically as *Shoth* (oedema), *aruchi* (loss of appetite), *Klama* (fatigue), and *Mutravikara* (altered urinary output). [10]

In this case of Chronic kidney disease (*Vrikk Rog*), the patient was treated using a well-defined *Ayurvedic* treatment plan, with consistent monitoring of relevant lab results. A tailored therapy was designed after a thorough clinical assessment, which included specific *Ayurvedic* dietary guidelines and herbal medications. Notable clinical improvement was observed after initiating this holistic, integrative approach.

Objective

To evaluate the effectiveness of an individualised *Ayurvedic* treatment approach in managing Chronic Kidney Disease

(*Vrikk Rog*) through symptom relief, *dosha* balance, and improvement in renal function parameters.

Case Study

A 12-year-old male with a documented history of Chronic Kidney Disease (CKD) presented to Jeena Sikho Lifecare Limited Clinic, Bhagalpur, Bihar, on July 11, 2025. The patient presented with symptoms that included a diminished urinary stream (*Alpa Pravritti Mutra*), facial puffiness (*Mukh Shotha*; Score: 3+) [11], generalised body oedema (*Sarvanga Shotha*; Score: 4+) [11], fatigue (*Klama*), cough (*Kasa*) and cold (*Pratishyaya*), nausea (*Hrillasa*), vomiting (*Chhardi*), difficulty in micturition (*Mutrakricchra*), and dyspnea (*Shwasa*; Score: 7) [12].

Before this, the patient had received treatment at an allopathic facility, where he underwent four sessions of dialysis. However, there was no significant improvement in his generalised swelling or in his laboratory parameters. Due to the lack of clinical progress, the patient discontinued allopathic medications and opted for *Ayurvedic* intervention at Jeena Sikho Lifecare Limited.

Comprehensive clinical assessment, including vital signs and *Ashtasthana Pareeksha* (the eightfold *Ayurvedic* diagnostic method), was conducted, with findings summarised in Table 1. Baseline laboratory investigations are provided in Table 2. A personalised *Ayurvedic* treatment protocol was initiated, which included classical *Ayurvedic* formulations, condition-specific *Panchakarma* therapies, individualised dietary recommendations, and appropriate lifestyle modifications. Following *Ayurvedic* management, the patient demonstrated notable clinical improvement in both subjective symptoms and objective parameters.

Table 1: Vitals and Ashtasthana Pareeksha

Parameters	Findings
Blood Pressure	110/90 mm Hg
Pulse Rate	82/min
Weight	42.6 Kg
<i>Nadi</i> (Pulse)	<i>Vataj Kaphaj</i>
<i>Mala</i> (Stool)	<i>Badh</i> (Constipated)
<i>Mutra</i> (Urine)	<i>Phenila</i> (Frothy)
<i>Jiwha</i> (Tongue)	<i>Malin</i> (Coated)
<i>Shabda</i> (Voice)	<i>Spasht</i> (Clear)
<i>Sparsha</i> (Touch)	<i>Anusheetoshna</i> (Normal)
<i>Akriti</i> (Face)	<i>Madhyam</i> (Normal)
<i>Drikk</i> (Eyes)	<i>Prakrit</i> (Normal)

Table 2: Baseline laboratory findings

Tests	Values
Hemoglobin	10.2 g/dl
Blood Urea Nitrogen (BUN)	78.7 mg/dl
Serum Creatinine	4.52 mg/dl
Electrolyte: Sodium	129 mmol/l
Calcium	7.7 mg/dl

Treatment Plan

Shaman Chikitsa

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

Table 3. The patient continued allopathic medications in a tapered manner throughout the treatment course, as outlined in Table 4.

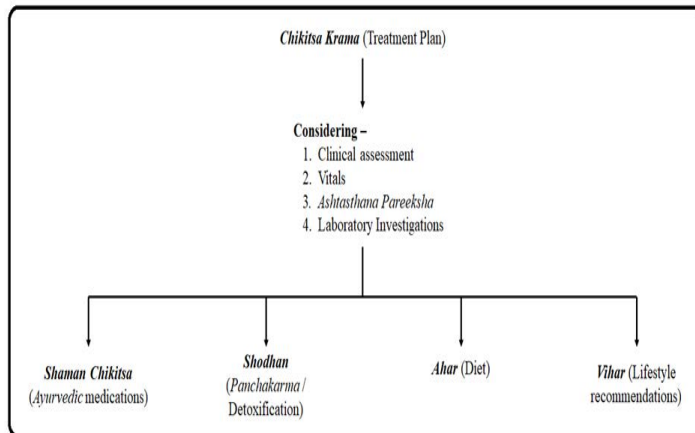


Table 3: Ayurvedic medicines prescribed

Date	Medicines	Dosage with Anupana (Medium)
11-07-2025	Relivon Powder	Half Teaspoon HS (<i>Nishikala with Koshna Jala</i>) *
	Punarnava tablet	1 Tab BD (<i>Adhobhakta with Koshna Jala</i>) **
	CKD Tablet	1 Tab BD (<i>Adhobhakta with Koshna Jala</i>)
	Gokshur Tablets	1 Tab BD (<i>Adhobhakta with Koshna Jala</i>)
	CKD Syrup	7 ml BD (<i>Adhobhakta with Sama Matra Koshna Jala</i>) ***
	Vish har ras syrup	7 ml BD (<i>Adhobhakta with Sama Matra Koshna Jala</i>)
	Telome + Syrup	7 ml BD (<i>Adhobhakta with Sama Matra Koshna Jala</i>)
	GFR Powder	Half Teaspoon BD (<i>Adhobhakta with Koshna Jala</i>)
24-07-2025	Rakt Pooran Tablets	1 Tab BD (<i>Adhobhakta with Koshna Jala</i>)
	Hemotone-I Plus	7 ml BD (<i>Adhobhakta with Sama Matra Koshna Jala</i>)
	Relivon Powder	Half Teaspoon HS (<i>Nishikala with Koshna Jala</i>)
	CKD Tablet	Half Tab BD (<i>Adhobhakta with Koshna Jala</i>)
	Gokshur Tablets	1 Tab BD (<i>Adhobhakta with Koshna Jala</i>)
	Arogyavardhini Vati	Half Tab BD (<i>Adhobhakta with Koshna Jala</i>)
	Vish har ras syrup	7 ml TDS (<i>Adhobhakta with Sama Matra Koshna Jala</i>)
	Hemotone-I Plus	7 ml TDS (<i>Adhobhakta with Sama Matra Koshna Jala</i>)

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

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

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

Table 4: Allopathic medicines tapered during the treatment

Medicine	Dosage	Day 1 - Day 3	From Day 4
Cefixime - 200 mg	1 Tab BD	✓	1 Tab OD
Pantoprazole - 40 mg	1 Tab OD	✓	HOLD
Calcium+Vitamin D3 - 500 mg	1 Tab OD	✓	HOLD
Vitamin D3 - 60,000 IU	0.5 ml OD	✓	✓
Ondansetron - 4 mg	1 Tab SOS	✓	HOLD

Prednisolone - 20 mg	2 Tab (After Meal)	✓	HOLD
	1 Tab (Before Meal)	✓	HOLD
Furosemide - 40 mg	1 Tab BD	✓	HOLD

Shodhan

Following a thorough clinical evaluation, a customised *Panchakarma* treatment plan was developed for the patient.

The regimen included therapies such as *Abhyangam*, *Shirodhara*, *Shiropichu* and *Matra Basti* specifically tailored to address the underlying condition effectively.

1. Abhyanga with Bala Ashwagandha oil [13]

Pre-Procedure (Purv Karma)	The patient was assessed for <i>Abhyanga</i> suitability, positioned comfortably in a warm, well-ventilated room, and the <i>Bala-Ashwagandha</i> oil was gently warmed to body temperature before initiating the procedure.
Main Procedure (Pradhan Karma)	Warm <i>Bala-Ashwagandha</i> oil was applied uniformly over the patient's body, and massage was performed using moderate pressure in the direction of hair growth. Circular motions were used over joints and long strokes along muscles, with focused attention on areas of stiffness, following standard <i>Abhyang</i> protocol for 45 minutes.
Post-Procedure (Paschat Karma)	Following <i>Abhyang</i> , the patient was allowed to rest and was subsequently advised a warm water bath, adequate hydration, and a light, warm diet.

2. Shirodhara with Brahmi oil [14]

Preparation	The <i>Brahmi</i> 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 <i>Shirodhara</i> 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 <i>Brahmi</i> oil to facilitate relaxation.
Main Procedure (Pradhan Karma)	The <i>Shirodhara</i> vessel was positioned approximately 5 inches above the forehead, allowing a continuous stream of lukewarm <i>Brahmi</i> oil to flow steadily over the <i>Ajna Chakra</i> (forehead region). The oil was rhythmically administered over the forehead for 45 minutes while maintaining 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.

3. Matra Basti with Punarnava and Guduchi Siddh Sneh [15]

Preparation of Oil	The medicated oil was prepared using Punarnava, Guduchi, and sesame oil through classical Ayurvedic heating methods, then filtered and stored hygienically for clinical use.
Pre-Procedure (Purv Karma)	The patient was assessed, given light food the night before, and prepared with an oil massage, mild steam, and bladder and bowel evacuation after consent.
Main Procedure (Pradhan Karma)	The patient was positioned on the left side, and 60 ml of warm medicated oil was administered rectally using a sterile, lubricated catheter. After administration, the catheter was removed, and the patient rested on their back for 15 minutes.
Post-Procedure (Paschat Karma)	The patient retained the oil comfortably for 4–5 hours, was given a light diet, and advised to avoid exertion, stress, and cold exposure.

4. *Shiropichu* and *Shiro* – *abhyangam* with *Brahmi* oil [16, 17]

Preparation of Oil	<p><i>Brahmi</i> oil was prepared by combining sesame oil, <i>Brahmi</i> decoction, and <i>Brahmi</i> paste in a 1:4:1 ratio and heating the mixture over a low flame until all moisture evaporated.</p> <p>The oil was then filtered and stored in an airtight container for therapeutic application.</p>
Pre-Procedure (Purv Karma)	<p>The patient was positioned comfortably in a warm, quiet environment, and the <i>Brahmi</i> oil was warmed to a luke-warm temperature.</p> <p>The scalp was cleaned, and protective cotton was placed around the neck to prevent oil spillage.</p>
Main Procedure (Pradhan Karma)	<p>Shiroadhyanga: Lukewarm <i>Brahmi</i> oil was gently massaged on the scalp using circular and linear strokes, with mild pressure on Marma points for 15–20 minutes.</p> <p>Shiropichu: A warm, oil-soaked cotton pad was placed on the crown of the scalp, covered to retain heat, and kept for 45 minutes with oil added as needed.</p>
Post-Procedure (Paschat Karma)	<p>The oil-soaked pad was removed gently, excess oil wiped off, a warm towel compress applied, and the patient was advised to avoid cold and bathe with mild shampoo after 1–2 hours.</p>

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). [18] 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) [19]

- Fresh and homemade food
- Millet diet

b) *Apathya* (Avoid): [19]

- Wheat, Packed food, Refined food, Dairy food/ Animal food, Coffee and Tea
- Never eat after 8 PM
- In solid, take a small bite and chew 32 times
- In liquid, take a sip and drink slowly

c) Hydration [20]

- 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 herb tea)
- Living water
- Turmeric water
- d) Millet Meal [20]
 - Foxtail (*Setaria italica*)
 - Barnyard (*Echinochloa esculenta*)
 - Little (*Panicum sumatrense*)
 - Kodo (*Paspalum scrobiculatum*)
 - Browntop (*Urochloa ramosa*)
 - *MotaAnaj* – Sorghum (*Sorghum bicolor*)
- e) Special Instructions [20]
 - Brisk walking 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 a steel cookware using only mustard oil.
 - Sit in *Vajrasana* after every meal

f) Meal Structure [20]

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)
<ul style="list-style-type: none"> • 4 Crushed tulsi leaves + 1 gm ginger + 2 spoons of honey + hot water = on empty stomach / Herbal Tea 	<ul style="list-style-type: none"> • Plate 1: Seasonal fruits (4-5 types) + turmeric water + <i>Mugdayusha</i> • Plate 2: Millet <i>Khichdi</i> / Millet <i>Poha</i> / Millet <i>Upma</i> 	<ul style="list-style-type: none"> • Red Juice (Beetroot, Carrot, Tomato & Pomegranate) – 150 ml • Soaked Almonds (4-5) 	<ul style="list-style-type: none"> • Plate 1: Steamed Salad • Plate 2: Fermented Millet Meal 	<ul style="list-style-type: none"> • Green Juice (Spinach, Fenugreek, Bathua, Amaranth, Mint, Coriander, Curry leaves & betel leaves) – 100 – 150 ml • Soaked Almonds (4-5) 	<ul style="list-style-type: none"> • 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: [20]

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*), **Sauf** (*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 **Pudina** (*Mentha piperita*)

Vihar [20]

- a) **Meditation:** The patient was advised to practise Meditation daily for 30 minutes at least.
- b) **Yoga:** Perform *Sukshma Pranayam* and *Sukhasana* for 40 minutes daily
- c) **Sleep:** Ensure 6–8 hours of uninterrupted, deep, and sound sleep.
- d) **Walking:** Brisk walk for 30 minutes barefoot.
- e) **Daily Routine:** The patient was also advised to follow a structured routine.

Generalised body oedema - Score:	Improved - Score: 1+
4+	
Fatigue	Relieved
Cough and cold	Relieved
Nausea	Relieved
Vomiting	Relieved
Difficulty in micturition	Relieved
Dyspnea - Score: 7	Relieved - Score: 1

Observation & Result

Throughout the treatment period, the patient showed steady clinical improvement, with quality of life assessments reflecting marked enhancement in both physical and emotional well-being. Notable symptomatic relief was achieved following two outpatient interventions, including improvement in weak urinary stream, facial puffiness, generalised oedema, fatigue, respiratory symptoms, gastrointestinal discomfort, and dyspnea. Urinary characteristics normalised, and both facial and systemic oedema reduced progressively. Micturition difficulties also showed gradual improvement. These clinical findings were supported by laboratory investigations, demonstrating a significant decline in serum creatinine levels. A comparative overview of pre- and post-treatment laboratory parameters is provided in Table 5, while Table 6 summarises the progression of clinical symptoms.

Table 5: Pre and Post-treatment Laboratory Evaluations

Tests	Values	
	23-06-2025	24-07-2025
Serum Creatinine	4.52 mg/dl	1.15 mg/dl

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

Symptoms before treatment	Symptoms after treatment
Weak urinary stream	Improved urinary stream
Facial puffiness - Score: 3+	Improved - Score: 1+

Discussion

This case study presents a 12-year-old male diagnosed with Chronic Kidney Disease (CKD), who sought integrative care at Jeena Sikho Lifecare Ltd. Hospital. The patient exhibited clinical features including weak urinary stream, facial puffiness, generalised oedema, fatigue, respiratory distress, gastrointestinal symptoms, and dyspnea.

A comprehensive evaluation was performed, incorporating vital parameters, *Ashtasthana Pareeksha*, and relevant laboratory investigations to formulate a personalised treatment plan. The integrative management approach consisted of *Nidan Parivarjan* and condition-specific interventions across *Ahar*, *Vihar*, *Shaman Chikitsa*, and *Shodhan* modalities.

Nidan Parivarjan

As part of the treatment strategy, the 12-year-old patient was advised to avoid heavy, oily, fermented, and excessively spicy foods. Dietary recommendations emphasised a renal-appropriate plan with restricted intake of salt, protein, and potassium, along with strict control of blood glucose and blood pressure, and avoidance of nephrotoxic substances. Additional lifestyle guidance included maintaining adequate hydration, avoiding strenuous activity, and following a structured daily routine. This integrative approach aligns with the *Ayurvedic* principle of *Nidan Parivarjan*, focusing on the elimination of causative factors to preserve renal function and improve clinical outcomes. [17]

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 *Vrikka Rog* (kidney disorders). The chart outlines the *Ayurvedic* pathogenesis of chronic kidney disease (*Vrikka Vikar/Vrikka Roga*), 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 *Rasa*, *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*. [9, 10]

Figure 1: *Samprapti* of this case

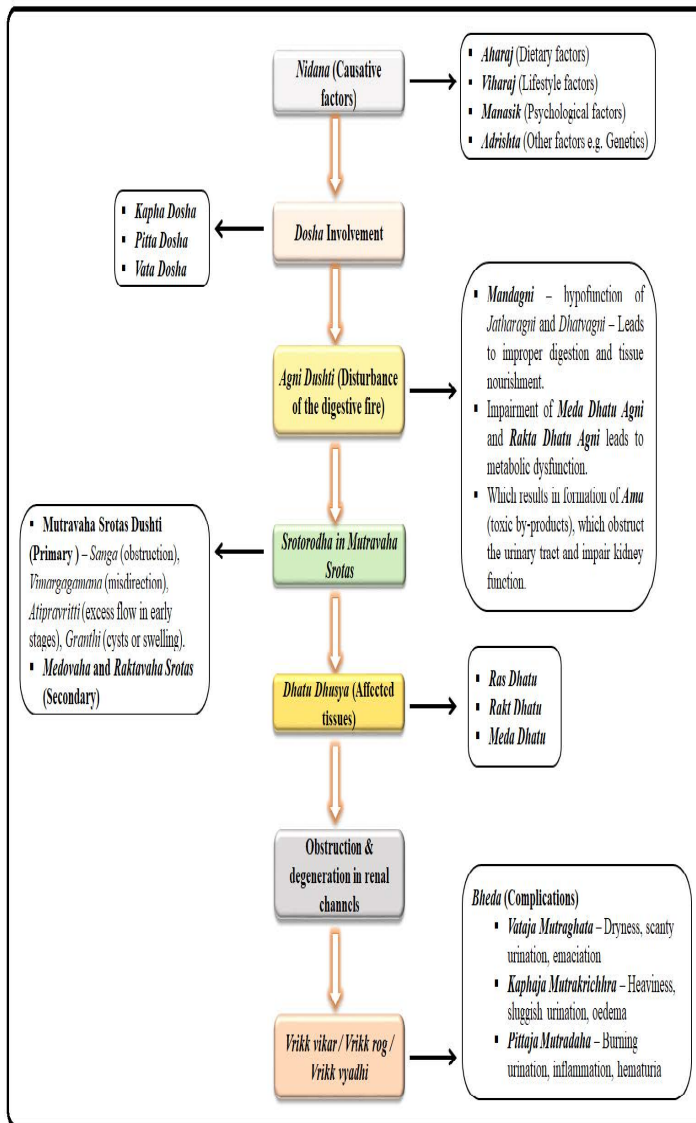
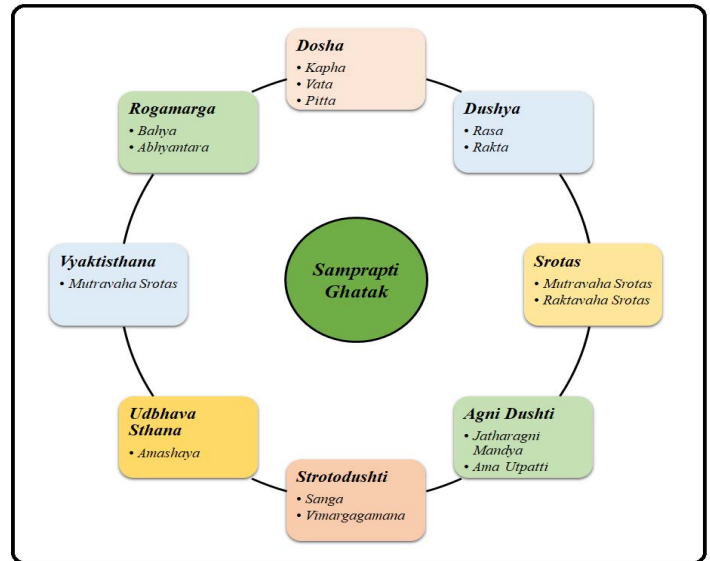


Figure 2: *Samprapti Ghatak* of *Vrikka rog* (CKD)



Ahar

Its dietary regimen focuses on light, easily digestible, and nutritionally balanced meals spread across six intervals throughout the day. The routine begins with tulsi-ginger water or herbal tea in the early morning, followed by seasonal fruits and millet-based preparations for breakfast. Midday and evening snacks include fresh vegetable juices (such as beetroot or leafy greens) and soaked almonds. Lunch and dinner consist of steamed salads, fermented millet dishes, and green vegetable soups made with low-potassium ingredients like spinach, zucchini, and carrots. This approach enhances digestion, aids detoxification, and aligns with *Ayurvedic* principles to balance the *Doshas* and support renal function. Meals were to be consumed before 8 PM, with an emphasis on including health-promoting beverages such as herbal teas, turmeric water, and naturally energised water. [19,20]

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. [19]

Chikitsa

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

- *Abhyanga* improves peripheral blood flow through massage, improving overall oxygen and nutrient delivery. *Bala – Ashwagandha Taila*, when used in *Abhyanga*, was used to nourish depleted *Mamsa, Meda*, and *Majja Dhatus*, thereby improving physical strength and reducing fatigue and general debility associated with CKD. [22]
- *Shirodhara* is known to enhance cerebral circulation, thereby facilitating improved oxygenation and nutrient supply to brain tissues. [10] In individuals with Chronic Kidney Disease (CKD), who frequently experience anxiety, cognitive disturbances, and sleep irregularities due to toxin build – up, the bacoside – rich *Brahmi* oil may help regulate the stress response, reduce cortisol levels, activate the parasympathetic nervous system, and promote restful sleep. [23]
- *Matra Basti* was administered using *Punarnava* and *Guduchi* oil. *Punarnava (Boerhavia diffusa)* and *Guduchi (Tinospora cordifolia)* exhibit diuretic, anti-inflammatory, antioxidant, and nephroprotective properties that may support the management of chronic kidney disease by reducing fluid overload, mitigating renal inflammation and oxidative stress, and protecting against nephron damage caused by toxins, hypertension, and hyperglycemia. [24, 25]
- *Shiropichu* and *Shiroabhyang* were administered using *Brahmi* oil. This promotes parasympathetic activation, reducing stress-induced neurohormonal activity, and potentially modulating the hypothalamic-pituitary-adrenal (HPA) axis, thereby supporting systemic blood pressure regulation, improving sleep, and alleviating anxiety, which are critical in managing the progression and symptom burden of CKD. [26]

A carefully structured *Shaman Chikitsa* (palliative treatment)

protocol was recommended by the physician. A comprehensive overview of the *Ayurvedic* formulations used in this case is provided in Table 7. ***Punarnava (Boerhavia diffusa)*** and ***Guduchi (Tinospora cordifolia)*** are 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. [27]

Punarnava (Boerhavia diffusa)

- *Punarnava* possesses *Tikta – Kashaya Ras* (bitter and astringent taste), *Laghu – Ruksha Guna* (light and dry qualities), *Ushna Virya* (hot potency), and *Katu Vipaka* (pungent post – digestive effect), with *Shothahara* (anti – inflammatory) and *Mutrala Prabhava* (diuretic action), useful in managing oedema and kidney dysfunction.
- *Punarnava* may help reduce swelling and fatigue, lower creatinine and urea levels, and support kidney function by managing protein loss and protecting the filtering units. [24]

Guduchi (Tinospora cordifolia)

- *Guduchi* exhibits *Tikta – Kashaya Ras* (bitter and astringent taste), *Laghu – Snigdha Guna* (light and unctuous qualities), *Ushna Virya* (hot potency), *Madhur Vipaka* (sweet post-digestive effect), and *Rasayana* (rejuvenative) and *Tridoshaghna Prabhava* (pacifies all three doshas), supporting immunity, detoxification, and chronic disease management.
- *Guduchi* may protect kidney cells, lower inflammation, and support overall health, especially in CKD linked to diabetes or high blood pressure. [25]

Table 7: Detailed description of medicines prescribed

Medicine	Ingredients	Therapeutic Effects
Relivon Powder	<i>Misreya (Foeniculum vulgare)</i> , <i>Saindhav Lavana (Rock Salt – not botanical, but mineral in nature: Halite)</i> , <i>Shunthi (Zingiber officinale – dried ginger)</i> , <i>Jang Haritaki (Terminalia chebula)</i> , <i>Eranda oil (Ricinus communis – castor oil)</i>	<i>Agnidhepan</i> and <i>Pachan</i> (Supports digestive health), <i>Shodhan</i> (aids in detoxification), <i>Balya</i> and <i>Rasayan</i> (enhance energy and vitality)
Punarnava tablet	<i>Punarnava (Boerhavia diffusa) Extract.</i>	<i>Mutrala</i> (Diuretic), <i>Ama Pachan</i> , <i>Shotha Har</i> (anti-inflammatory), <i>Sandhivatahar</i> (pacifying <i>Vata</i> disorders of the joints), and <i>Rasayan</i>
CKD Tablet	<i>Pashanbhed (Bergenia ciliata)</i> , <i>Varun (Crataeva nurvala)</i> , <i>Punarnava (Boerhavia diffusa)</i> , <i>Gokshur (Tribulus terrestris)</i> , <i>Apamarg (Achyranthes aspera)</i> , <i>Haridra (Curcuma longa)</i> , <i>Charila (Embelia ribes)</i> , <i>Kulthi (Dolichos biflorus)</i> , <i>Haritaki (Terminalia chebula)</i> , <i>Bhumi Amlaki (Pyrrosia piloselloides)</i> , <i>Guduchi (Tinospora cordifolia)</i> , <i>Shitalchini (Vernonia cinerea)</i> , <i>Anantmoool (Hemidesmus indicus)</i> , <i>Khas (Vetiveria zizanoides)</i> , <i>Yava kshar (Alkaline substance, botanical origin unclear)</i> , <i>Muli Kshar (Raphanus sativus)</i> , <i>Kalmi Shora (Sodium bicarbonate)</i> , <i>Sajji Kshar (Traditional alkaline substance, botanical origin unclear)</i> , <i>Shilajeet (Asphaltum)</i> , <i>Hazrool Yashood (Silicon dioxide)</i> , <i>Shwet Parpati (Mercury-based preparation in Ayurvedic medicine).</i>	Promotes urination, reduces excess bile, and stimulates liver function.

Gokshur Tablets	Gokshur (<i>Tribulus terrestris</i> Fr.)	Mutravaha Srotas Shodhan (purification of the urinary channels), Mutrala (diuretics) and Oja Vardhak (enhances vitality and immunity)
CKD Syrup	Kasani (<i>Cichorium intybus</i>), Gokshur (<i>Tribulus terrestris</i>), Shatavari (<i>Asparagus racemosus</i>), Guduchi (<i>Tinospora cordifolia</i>), Sorbitol , and Shuddh Shilajeet (Asphaltum punjabianum)	Mutrala (diuretics) Karma
Vish har ras syrup	Guduchi (<i>Tinospora cordifolia</i>), Erandakarkati Leaf (<i>Carica papaya</i>), Wheat Grass (<i>Triticum aestivum</i>), Punarnava (<i>Boerhavia diffusa</i>), Nimba (<i>Azadirachta indica</i>), Vasapatra (<i>Adhatoda vasica</i>), Kalmegh (<i>Andrographis paniculata</i>), Karanj Beej (<i>Pongamia pinnata</i>), Haridra (<i>Curcuma longa</i>), and Tulsi (<i>Ocimum sanctum</i>)	Vata-anulomaka (regulates and balances Vata), Sandhi-sula-har (relieves joint pain), Grahani-sthapan (supports intestinal health) and Bala-varadhak (enhances strength and immunity)
Telome + Syrup	Kumari (<i>Aloe vera</i>), Guduchi (<i>Tinospora cordifolia</i>), Bhringraj (<i>Eclipta prostrata</i>), Amalaki (<i>Phyllanthus emblica</i>), Kutaki (<i>Picrorhiza kurroa</i>), Bhoomi Amlaki (<i>Phyllanthus niruri</i>), Daru Haridra (<i>Berberis aristata</i>), Vidanga (<i>Embelia ribes</i>), Chitraka (<i>Plumbago zeylanica</i>), Kalmegh (<i>Andrographis paniculata</i>), Nishoth (<i>Operculina turpethum</i>), Shahtara (<i>Fumaria indica</i>), Triphala (<i>Terminalia chebula</i> , <i>Embelia officinalis</i> and <i>Terminalia bellirica</i>), Noni (<i>Morinda citrifolia</i>), Pudina (<i>Mentha piperita</i>), Tulsi (<i>Ocimum sanctum</i>), Bilva (<i>Aegle marmelos</i>), Kshudra Ela (<i>Elettaria cardamomum</i>), Shunthi (<i>Foeniculum vulgare</i>), Jeerak (<i>Cuminum cyminum</i>), Peepal (<i>Ficus religiosa</i>), Makoy (<i>Solanum nigrum</i>), Kasni (<i>Cichorium intybus</i>), Punarnava (<i>Boerhavia diffusa</i>) and Sorbitol	Yakrit Rog Chikitsa (manages Liver disease, Annavaha Srotas Vyadhi (GIT Disease) and Rasayana Karma (cell rejuvenation))
GFR Powder	Bhoomi Amalaki (<i>Phyllanthus niruri</i>), Brihat Haritaki (<i>Terminalia chebula</i>), Vibhitaki (<i>Terminalia bellirica</i>), Kasni (<i>Cichorium intybus</i>), Makoy (<i>Zea mays</i>), Punarnava (<i>Boerhavia diffusa</i>), Gokshur (<i>Tribulus terrestris</i>).	Srotoshodhana, thus increasing Glomerular filtration rate
Rakt Pooran Tablets	Aloevera (<i>Aloe barbadensis</i>), Amalaki (<i>Embelia officinalis</i>), Shigru (<i>Moringa oleifera</i>), Shwet Musli (<i>Chlorophytum borivilianum</i>), Ashwagandha (<i>Withania somnifera</i>), Lavang (<i>Syzygium aromaticum</i>), Vaya Vidang (<i>Embelia ribes</i>), Chitrak (<i>Plumbago zeylanica</i>), Trikatu (<i>Piper nigrum</i> , <i>Piper longum</i> and <i>Zingiber officinale</i>), Godanti Gypsum (Calcium sulfate dihydrate – mineral), Praval Pisti (Coral calcium carbonate – mineral), Kasisadi Bhasma (Copper pyrite – minerals), Kant Loh (usually refers to a type of purified iron or amalgam, exact species not applicable) and Shilajeet (Asphaltum/Bitumen – mineral/organic substance), Mandoor Bhasma (Iron oxide – mineral)	Lohamaya Chikitsa (corrects iron deficiency), Ojavardhaka (enhances energy levels) and Rasayana (rejuvenation therapy)
Hemotone-I Plus	Lavang (<i>Syzygium aromaticum</i>), Brihat Ela (<i>Amomum subulatum</i>), Javitri (<i>Myristica fragrans</i> - Aril), Dal Chini (<i>Cinnamomum verum</i>), Haridra (<i>Curcuma longa</i>), Naag Kesar (<i>Mesua ferrea</i>), Ajwain (<i>Trachyspermum ammi</i>), Chavya (<i>Piper chaba</i>), Kutaki (<i>Picrorhiza kurroa</i>), Pippali (<i>Piper longum</i>), Gaj Pippali (<i>Scindapsus officinalis</i>), Devadaru (<i>Cedrus deodara</i>), Kaunch (<i>Mucuna pruriens</i>), Vaya vidang (<i>Embelia ribes</i>), Chitrak (<i>Plumbago zeylanica</i>), Danti (<i>Baliospermum montanum</i>), Daru Haridra (<i>Berberis aristata</i>), Dhanyaka (<i>Coriandrum sativum</i>), Gangayran (<i>Clerodendrum serratum</i>), Gokshur (<i>Tribulus terrestris</i>), Rasna (<i>Pluchea lanceolata</i>), Kanghi- Atibala (<i>Abutilon indicum</i>), Kherati- Bala (<i>Sida cordifolia</i>), Hriber (<i>Coleus vettiveroides</i>), Hapusha (<i>Juniperus communis</i>), Lodhra (<i>Symplocos racemosa</i>), Marorphali (<i>Helicteres isora</i>) Murva (<i>Marsdenia tenacissima</i>), Yashtimadhu (<i>Glycyrrhiza glabra</i>), Nagarmotha (<i>Cyperus rotundus</i>), Pohkar (<i>Aconitum heterophyllum</i>), Lal Punarnava (<i>Boerhavia diffusa</i>), Saunf (<i>Foeniculum vulgare</i>), Supari (<i>Areca catechu</i>), Tejpatra (<i>Cinnamomum tamala</i>), Utangan (<i>Blepharis edulis</i>), Vaya vidanga (<i>Embelia ribes</i>), Akarkara (<i>Anacyclus pyrethrum</i>), Triphala (<i>Terminalia chebula</i> , <i>Terminalia bellirica</i> and <i>Phyllanthus emblica</i>), Trikatu (<i>Piper longum</i> , <i>Piper nigrum</i> and <i>Zingiber officinale</i>), Munakka (<i>Vitis vinifera</i>), Dhay Phool (<i>Woodfordia fruticosa</i>), Gwar Patha (<i>Aloe barbadensis</i>), Loh Bhasma (Iron Ash - Ayurvedic Preparation), Ashwagandha (<i>Withania somnifera</i>), Shehad (Honey - Natural Product from Apis species), Gur (<i>Saccharum officinarum</i> - Jaggery) and Water (H ₂ O - Universal Solvent).	Raktavardhak (blood-enhancing), Raktaprasadan (purifies and nourishes the blood) and Srotoshodhak (cleanses and clears the body's channels)

Arogya- vardhini Vati	Amla (<i>Emblica officinalis</i>), Kutaki (<i>Picrorhiza kurroa</i>), Haritaki (<i>Terminalia chebula</i>), Vibhitaki (<i>Terminalia bellirica</i>), Shilajeet (<i>Asphaltum punjabianum</i>), Shuddha Guggulu (<i>Commiphora mukul</i>), Abhrak Bhasam (Purified Mica), Loh Bhasma (Ferrum – Iron), Tamra Bhasma (Cuprum – Copper)	Prana Vardhan (enhancer of vital life force), Shwas Rogahar (reliever of respiratory disorders), Ama Pachan (digestor of toxins) and Rogahar (disease remover)
Vish har ras syrup	Guduchi (<i>Tinospora cordifolia</i>), Erandakarkati Leaf (<i>Carica papaya</i>), Wheat Grass (<i>Triticum aestivum</i>), Punarnava (<i>Boerhavia diffusa</i>), Nimba (<i>Azadirachta indica</i>), Vasapatra (<i>Adhatoda vasica</i>), Kalmegh (<i>Andrographis paniculata</i>), Karanj Beej (<i>Pongamia pinnata</i>), Haridra (<i>Curcuma longa</i>), and Tulsi (<i>Ocimum sanctum</i>)	Vata-anulomaka (regulates and balances Vata), Sandhi-sula-har (relieves joint pain), Grahani-sthapan (supports intestinal health) and Bala-varadhak (enhances strength and immunity)

Future Research Aspects

A critical direction for future research in the *Ayurvedic* management of chronic kidney disease (CKD) involves elucidating the molecular mechanisms underlying the renoprotective effects of traditional formulations. While herbs such as *Punarnava*, *Gokshur*, *Haritaki*, *Shilajeet*, and *Vibhitaki* are traditionally employed in kidney care, comprehensive scientific investigations are required to validate their efficacy and define their interactions with key biochemical pathways involved in CKD pathogenesis. [28] Future studies could include:

1. Pharmacokinetic and pharmacodynamics investigations: This research would aim to investigate the pharmacokinetics—specifically the absorption, distribution, metabolism, and excretion—of *Ayurvedic* herbs used in the treatment of chronic kidney disease, providing critical insights into their biological processing and supporting the optimisation of their integration into modern clinical practice. [29]

2. Clinical trials: Well-structured randomised controlled trials (RCTs) assessing the safety and efficacy of *Ayurvedic* interventions in patients with chronic kidney disease, particularly in stages 3 to 5, are essential to generate high-quality evidence supporting their comparative benefits alongside conventional treatments. [30]

3. Biomarker discovery and validation: Research may focus on identifying specific biomarkers that accurately reflect the therapeutic efficacy of *Ayurvedic* interventions, thereby enhancing the monitoring of disease progression and treatment outcomes in patients with chronic kidney disease. [31]

4. Combination therapies: Exploring the potential synergistic interactions between *Ayurvedic* therapies and conventional pharmaceutical treatments may facilitate the development of more comprehensive and integrative management strategies for chronic kidney disease. [32]

5. Gut microbiome studies: *Ayurveda* emphasises the critical role of digestion and metabolic homeostasis; future research could explore the effects of *Ayurvedic* therapies on the gut

microbiome and their potential contribution to renal health, particularly given the growing evidence linking microbiome dysbiosis with the progression of chronic kidney disease. [33]

Conclusion

This case study demonstrates the successful *Ayurvedic* management of Chronic Kidney Disease (CKD) with coexisting hypertension in a patient who presented with significantly impaired renal function. The patient's medical history revealed advanced chronic kidney damage, including diffuse glomerulosclerosis and severe tubulointerstitial chronicity, with no evidence of immune complex deposition and negative or pending autoimmune markers—indicating structural deterioration of non-immune aetiology.

A comprehensive *Ayurvedic* treatment protocol was initiated following a detailed clinical assessment, including laboratory parameters and symptomatology. The management strategy focused on *Nidan Parivarjan* (elimination of causative factors), *Ahar – Vihar Parivarjan* (dietary and lifestyle modifications), *Panchakarma* therapies for systemic detoxification, and *Shaman Chikitsa* incorporating hepatoprotective and *Rasayan* (rejuvenative) formulations. Over the course of one month, the patient showed notable clinical improvement in renal function, systemic vitality, and associated symptoms. These improvements correlate with the effective pacification of aggravated *Vata – Kapha doshas*, enhancement of *Agni* (digestive fire), clearance of *Ama* (metabolic toxins), and restoration of *Mutravah Strotas* (urinary channels). This case underscores the therapeutic potential of integrative *Ayurvedic* protocols in managing chronic systemic disorders like CKD, especially in cases with coexisting conditions. Continued *Rasayan* therapy and regular clinical monitoring are recommended to maintain and enhance long-term outcomes.

Clinical:

- The patient showed substantial overall symptomatic improvement over the duration of the treatment.

- **Facial and generalised oedema (*Mukh and Sarvanga Shotha*) progressively subsided**, returning to normal levels (**Score: 3+ reduced to Score: 1+** and **Score: 4+ reduced to Score: 1+** respectively).
- **Urinary difficulty (*Mutrakricchra and Alpa Pravritti Mutra*) showed marked improvement.**
- Symptoms of **fatigue (*Klama*), cold, and cough (*Kasa and Pratishyaya*) were notably alleviated.**
- The patient experienced significant **improvement in dyspnea (*Shwasa*; Score: 7 reduced to Score:1).**

Laboratory

- Laboratory results were consistent with the observed clinical improvements.
- **Serum Creatinine levels reduced from 4.52 mg/dl to 1.15 mg/dl**

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