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Management of CKD with Hypertension through Poly Herbal Formulation: A Holistic Healing Approach

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Abstract

Chronic Kidney Disease (CKD) and Hypertension are interconnected, with reduced kidney function contributing to fluid retention, hypertension, and endothelial dysfunction, ultimately accelerating atherosclerosis. Hypertension, a significant risk factor for both CKD and Hypertension, exacerbates kidney damage by increasing glomerular pressure and reducing renal perfusion, leading to worsening cardiovascular outcomes. Additionally, anemia, a frequent complication of CKD, intensifies Hypertension progression by impairing oxygen delivery to the myocardium, heightening the risk of ischemic events and heart failure. The coexistence of CKD, anemia and hypertension increases the likelihood of major adverse cardiac and cerebrovascular events (MACCE) and all-cause mortality, complicating clinical management. *Ayurveda* offers a holistic approach for managing these conditions through *Ayurvedic* medicines, dietary modifications, and lifestyle interventions. This case study evaluates an *Ayurvedic* treatment approach at Jeena Sikho Lifecare Limited Clinic, Sangrur, in a 29-year-old female patient with CKD, hypertension, and anemia. The patient presented with whole-body swelling, reduced urine output, pedal oedema, breathlessness, and generalized itching. *Ayurvedic* interventions led to symptomatic relief and improvements in renal function, with serum urea levels decreasing from 198.2 mg/dL to 146.3 mg/dL and creatinine from 8.72 mg/dL to 5.96 mg/dL. Blood pressure control also improved from 160/80 mmHg to 140/90 mmHg. These findings suggest that *Ayurvedic* therapies may provide an effective complementary approach to managing CKD and its complications, highlighting the need for further clinical trials to establish standardized protocols.

Keywords: *Ayurveda,* Chronic Kidney Disease (CKD), Hypertension, *Panchakarma*, *Vataj pandu, Vrikk vikar*.

Introduction

Chronic kidney disease (CKD) and Hypertension are closely linked, as reduced kidney function leads to fluid retention, increased blood pressure, and endothelial dysfunction, all of which contribute to atherosclerosis. Hypertension, a major risk factor for both CKD and Hypertension, accelerates kidney damage by increasing glomerular pressure and reducing renal perfusion, ultimately leading to worsening cardiovascular outcomes. Anemia, a frequent complication of CKD [1, 2]. The combination of CKD, anemia, and hypertension presents significant challenges in clinical outcomes.

Research indicates that the coexistence of CKD and anemia exacerbates the risks associated with CAD, particularly after procedures like percutaneous coronary intervention (PCI) [3, 4, 5]. Patients with both conditions experience higher rates of major adverse cardiac and cerebrovascular events (MACCE) and all-cause mortality compared to those with either condition alone. CKD and anemia together significantly increase the risk of MACCE and mortality, with adjusted hazard ratios for MACCE being notably higher in patients with both conditions (HR 2.00) [6]. Additionally, hypertension complicates the management of CKD, often leading to resistant hypertension, which remains difficult to control even with multiple antihypertensive agents [7]. Predictive models, particularly those utilizing machine learning, have shown promise in identifying the onset of CKD, anemia and hypertension, aiding early intervention [8]. Despite the severe implications of these combined conditions, some studies suggest that innovative treatments, such as hypoxia-inducible factor prolyl hydroxylase (HIF-PH) inhibitors for anemia, may offer benefits. However, these treatments require careful

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blood pressure monitoring due to potential hypertensive effects [9].

CKD is strongly linked to hypertension, further complicating treatment regimens and necessitating advanced therapeutic strategies for resistant cases [7]. Managing these conditions often requires a multidisciplinary approach involving nephrologists, cardiologists, and hematologists. Conventional treatments include antihypertensive medications, statins, erythropoiesis-stimulating agents for anemia, and dialysis in advanced CKD cases. Emerging technologies such as predictive modeling using artificial intelligence have shown promise in improving early detection and personalized treatment strategies [8].

Ayurveda offers a holistic approach to managing conditions such as CKD, anemia, and hypertension without relying on conventional medications. This approach focuses on lifestyle modifications, dietary adjustments, and *Ayurvedic* treatment tailored to individual *dosha* imbalances. A balanced diet rich in potassium and low in carbohydrates and fats can significantly improve cardiovascular health and help manage hypertension. *Panchakarma* therapies, known for their detoxification benefits, may enhance kidney function and provide symptomatic relief for CKD [10]. Additionally, regular *yoga* practice and adherence to daily routines (*Dinacharya*) contribute to stress management and improved cardiovascular health [11]. Various medicines, which form the basis of over 60-70% of modern medicines, have also been recognized for their effectiveness in treating heart-related disorders [11, 12, 13, 14]. While *Ayurveda* presents a promising alternative for managing these conditions, individual responses may vary, and in some cases, conventional treatments may still be necessary for optimal health outcomes.

Objective

This study aims to assess the impact of *Ayurvedic* interventions in managing CKD and hypertension in a 29-year-old female patient.

Materials and Methods

1. **Case Report:** On February 06, 2024, a 29-year-old female, known case of hypertension and CKD since 4 years, visited Jeena Sikho Lifecare Limited Clinic, Sangrur. A comprehensive medical history, family history, physical examination, and diagnostic evaluations were all part of the methodical and thorough examination. She has a history whole body swelling since 4 years and was taking medicines intermittently. She came with the complaints like decrease in urine frequency, periorbital, face and pedal oedema, breathlessness, itching throughout the body and frothy and smelly urine. She underwent tubectomy 3 years ago. She was on injection erythropoietin 1/1000 U. The initial assessment during the visits is detailed in Table 1. The *Astha-sthana pariksha* during the treatment is mentioned in Table 2. The laboratory investigations during the treatment period is mentioned in Table 3.

Table 1: The initial assessment during the visits

Date	Blood Pressure	Weight
06-02-2025	160/80/103 mmHg	38.8 Kg
11-02-2025	104/90/103 mmHg	39 Kg

Table 2: The *Astha-Vidha Pariksha* during the treatment

Parameter	06-02-2025	11-02-2025
Naadi (Pulse)	*Vataj Pittaj*	*Vataj Pittaj*
Mala (Stool)	*Vibandha* (Constipated)	*Avikrit* (Normal)
Mutra (Urrine)	*Durgandha Yukta* (Malodoured)	*Avikrit* (Normal)
Jiwha (Tongue)	*Saam* (Coated)	*Niram* (Normal)
Shabda (Voice)	*Spashta* (Clear)	*Spashta* (Clear)
Sparsha (Touch)	*Anushna Sheet* (Normal)	*Anushna Sheet* (Normal)
Drik (Eye)	*Avikrit* (Normal)	*Avikrit* (Normal)
Akriti (Physique)	*Madhyam*	*Madhyam*

Table 3: The laboratory investigations during the treatment period

Parameter	31-01-2025	20-02-2025
Hemoglobin	10.5 gm/dl	8.9 gm/dl
Blood Urea	198.2 mg/dl	146.. mg/dl
Sr. Creatinine	8.72 mg/dl	5.96 mg/dl
Uric acid	5.6 mg/dl	5.2 mg/dl

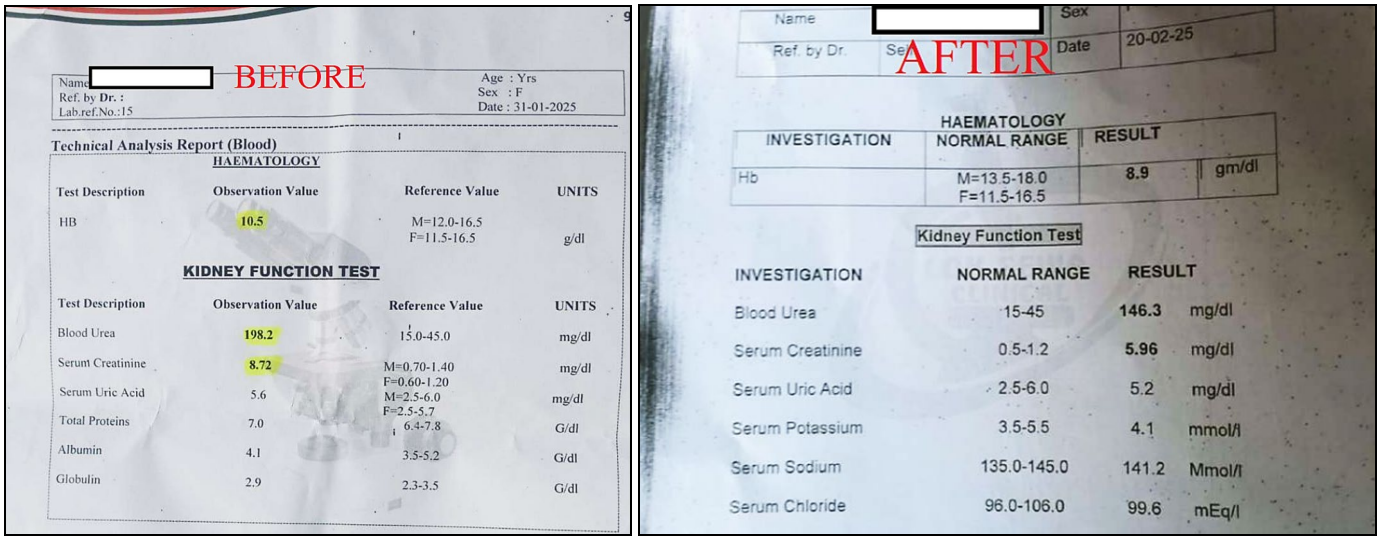


Fig 1: The laboratory reports during the treatment period

2. Treatment Plan

i). Diet Plan and Lifestyle Recommendations:

An accurately designed DIP Diet was provided to the patient to complement the *Ayurvedic* treatments administered for CKD [16, 17].

Fig 2: Dietary Guidelines from Jeena Sikho Lifecare Limited Hospital with lifestyle recommendations are illustrated in

ii). Medicinal Interventions

The *Ayurvedic* treatment employed in this case included Mutra Vardhak Vati, CKD Syrup, CKD Tablet, Kidney Shuddhi Ark, Mutral Vati, GFR Powder, Nephron plus and Chander Vati. The medications prescribed during the treatment period is mentioned in Table 4. The description of the medicines is detailed in Table 5. The patient was not on any allopathic medicines.

Table 4: The medicine advised on the treatment period

Date	Medicines	Dosage with Anupana
06-02-2025	GFR Powder	Half a teaspoon BD (*Adhobhakta with koshna jala-After meal with lukewarm water*)
	CKD Tablet	2 TAB TDS (*Adhobhakta with koshna jala*)
	CKD Syrup	20 ml BD (*Adhobhakta with sama matra koshna jala-After meal with equal amount of lukewarm water*)
	Kidney Shuddhi Ark	20 ml BD (*Adhobhakta with sama matra koshna jala*)
11-02-2025	Mutral Vati	2 TAB TDS (*Adhobhakta with koshna jala*)
	Mutravardhak Vati	2 TAB BD (*Adhobhakta with koshna jala*)
17-02-2025	Nephron Plus	2 TAB BD (*Adhobhakta with koshna jala*)
	Chandervati	2 TAB BD (*Adhobhakta with koshna jala*)
	Mutral Vati	2 TAB BD (*Adhobhakta with koshna jala*)
	Kidney Shuddhi Ark	20 ml BD (*Adhobhakta with sama matra koshna jala*)
	CKD Syrup	20 ml BD (*Adhobhakta with sama matra koshna jala*)

Table 5: The description of the medicines

Medicine Name	Ingredients	Therapeutic Effects
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).*	*Mutravardhak* (Diuretic), *Srotoshadhak* (Channel cleanser), *Deepan (Appetizer), Lekhana* (Scraping), *Anuloman* (Pacifier of *Vata* and promoting elimination)
CKD Syrup	*Kasani (Cichorium intybus), Gokshur (Tribulus terrestris), Shatavari (Asparagus racemosus), Giloy (Tinospora cordifolia), Sorbitol, and Shuddh Shilajit (Asphaltum punjabianum)*	*Raktashodhak* (Blood purifier), *Virechana* (Purgative), *Mutral* (Diuretic), *Agnideepan (Digestive stimulant), Rasayana* (Rejuvenator), *Shoth har* (Anti-inflammatory). *Pitta Shaman* (Pitta pacifier). *Kaphashodhan* (Kapha eliminator). *Srotoshodhan* (Channel cleanser)
Nephron plus	*Hazrool yahood (Lapis judaicus) bhasm, Chandraprabha powder and pashanbheda (Bergenia ligulata)*	*Raktashodhak* (Blood purifier), *Mutral* (Diuretic). *Vishagna* (Detoxifier). *Agnideepan* (Digestive stimulant), *Shoth har* (Anti-inflammatory), *Rasayana* (Rejuvenator), *Vatanuloman* (Vata regulator)
Chander Vati	*Kapoor Kachri (Hedychium spicatum), Vacha (Acorus calamus), Motha (Cyperus rotundus), Kalmegh (Andrographis paniculata), Giloy (Tmospora cordifolia), Devdaru (Cedrus deodara), Desi Haldi (Curcuma longa), Atees (Aconitum heterophyllum), Daru Haldi (Berberis aristata), Pipla Mool (Piper longum root), Chitrak (Plumbago zeylanica), Dhaniya (Coriandrum sativum), Harad (Terminalia chebula), Bahera (Terminalia bellirica), Amla (Phyllanthus emblica), Chavya (Piper chaba), Vayavidang (Embelia ribes), Pippal (Piper longum), Kalimirch (Piper nigrum), Saunth (Zingiber officinale dried ginger), Gaj Pipal (Scindapsus officinalis), Swarn Makshik Bhasm (Gold iron pyrite ash Ayurvedic preparation), Sajjikshar (Potassium carbonate traditional alkali preparation), Sendha Namak (Rock salt), Kala Namak (Black salt), Choti Elaichi (Elettaria cardamomum - small cardamom), Dalchini (Cinnamomum verum), Tejpatra (Cinnamomum tamala), Danti (Baliospermum montanum), Nishothra (Operculina turpethum), Vanslochan (Bamboo silica), Loh Bhasm (Iron ash Ayurvedic preparation), Shilajeet (Asphaltum punjabinum), Guggul (Commiphora wightii).*	*Raktashodhan* (Blood purifier), *Pitta Shaman* (Pitta pacifier), *Deepan (Appetizer), Pachan* (Digestant), *Vata-Pitta Shaman* (Dosha pacifier)
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).*	*Vata-Pitta Shaman* (Dosha pacifier), *Raktashodhan* (Blood purifier), *V'rikkadhara* (Kidney tonic), *Shoth har* (Anti-inflammatory), *Mutral* (Diuretic)
Kidney Shuddhi Ark	*Punarnava (Boerhavia diffusa), Gokshur (Tribulus terrestris). Varuna (Crataeva nurvala), Bhumyamalaki (Phyllanthus niruri), Ashwagandha (Withania somnifera), Amla (Emblica officinalis). Shatavari (Asparagus racemosus), Turmeric (Curcuma longa), Saffron.*	*Mutral* (Diuretic), *Shoth har* (Anti-inflammatory), *Mutravirechan (Urinary purgation), Raktaprasadan (Blood purifier), Kledahar* (Moisture remover), *Amapachan* (Toxin digestant), *Vrikkadoshahar (Kidney toxin eliminator), Rasayana* (Rejuvenator), *Vatanuloman* (Vata regulator)
GFR Powder	*Punarnava (Boerhavia diffusa), Gokshur (Tribulus terrestris), Kaasni (Cichorium intybus), Bhoomi Amla (Phyllanthus niruri), Badi Hard (Terminalia chebula), Makoy (Solanum nigrum) and Apamarg (Achyranthes aspera)*	*Mutral* (Diuretic), *Shoth har* (Anti-inflammatory), *Virechan* (Purgation), *Raktaprasadana* (Blood purifier), *Vatanulomana* (Vata regulator), *Mutravirechana* (Urinary purgation), *Rasayana (Rejuvenator), Amapachan (Toxin digestant), Kledahar* (Moisture remover), *Vrikkadoshahar* (Kidney toxin eliminator)
Mutral Vati	*Kajjali, Loh bhasm, Vanga bhasm, Abhrak bhasm, Yavakshara (Hordeum vulgare), Gokshur (Tribulus terrestris), Haritaki (Terminalia chebula), Vibhitaki (Terminalia bellirica), Vasa (Justicia adhatoda, Synonym: Adhatoda vasica)*	*Mutral* (Diuretic). *Raktashodhak* (Blood purifier), *Shoth har* (Anti-inflammatory), *Rasayana* (Rejuvenator)

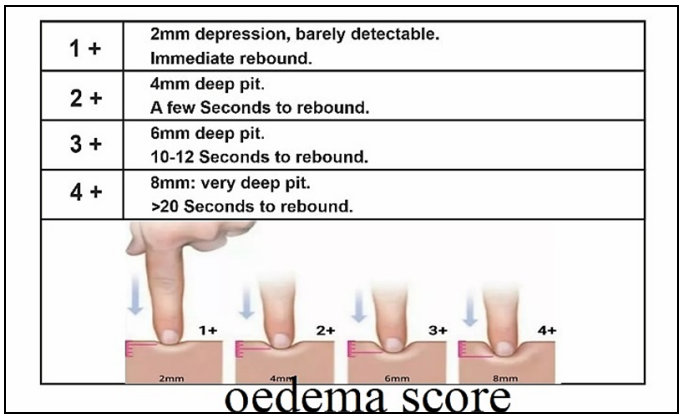
Result

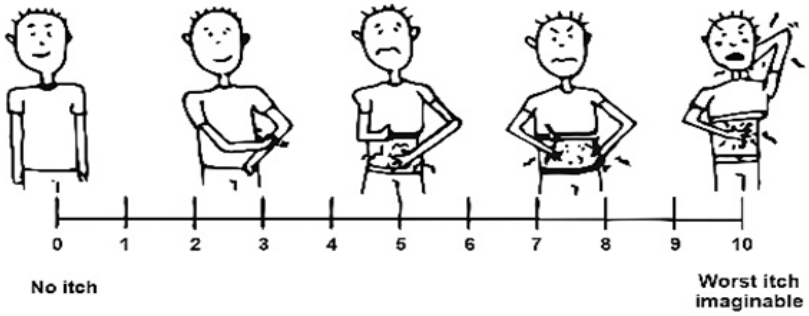
The patient underwent treatment for 1 month, after the treatment she experienced noteworthy development in symptoms, which denotes the interventions used in the study are effective against CKD and hypertension. At the time of discharge, the patient was well oriented and there was relief

from pedal oedema, itching and frothy urination with smell which shows that the *Ayurvedic* interventions used in the case study are effective for CKD. A reduction of blood urea, serum creatinine and uric acid were noticed after the treatment. The symptoms before and after treatment is mentioned in Table 6.

Table 6: The symptoms before and after treatment

Conditions	Before Treatment	After Treatment
Pedal oedema	3°	1°
Itching	4/10	0/10
Urine	Smelly and Frothy	Clear
Dyspnea (Breathlessness)	9/10	2/10





Discussion

Ayurvedic treatment for CKD offers a viable substitute for conventional medical methods. This case study describes the application of several *Ayurvedic* treatments to a 29-year-old woman who has been diagnosed CKD with hypertension. The patient's symptoms included whole body swelling, itching, breathlessness, nausea and decreased urine with froth and smell. The *Samprapti* [18, 19, 20, 21] for this case study is mentioned in Fig 3. The *Samprapti Ghataka* [18, 19, 20, 21] of the conditions is mentioned in Table 7. During her 1-month treatment, she had taken *Ayurvedic* medications.

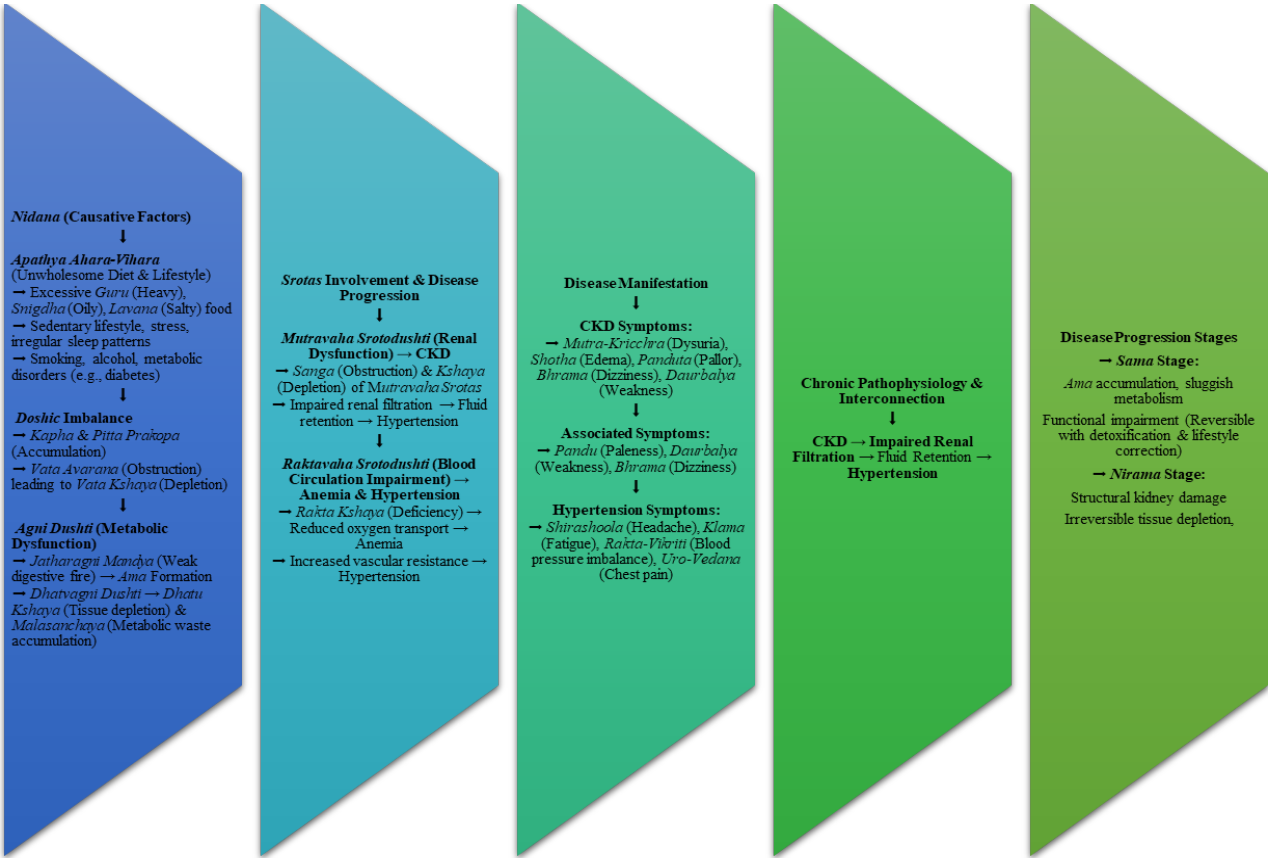


Fig 3: The *samprapti* for this case study

Table 7: The *Samprapti Ghataka* of the conditions in this case study

Condition	CKD (Chronic Kidney Disease)	Hypertension
Dosha (Humours)	*Vata-Kapha* (*Vata* and *Kapha* vitiation)	*Vata-Pitta* (*Vata* and *Pitta* vitiation)
Dushya (Affected Tissues)	*Rasa* (Plasma/lymph), *Rakta* (Blood), *Meda* (Fat), *Mutra* (Urine)	*Rakta* (Blood), *Rasa* (Plasma/lymph)
Srotas (Channels)	*Mutravaha* (Urinary system channels)	*Raktavaha* (Blood-carrying channels)
Agni/Dhatwagni (Metabolic Disturbance)	*Jatharagni*, *Dhatwagni* (Digestive fire, Tissue metabolic fire)	*Dhatwagni* (Tissue metabolic fire)
Srotodushti (Channel Pathology)	*Sanga*, *Vimarga gamana* (Obstruction, Abnormal flow or leakage)	*Sanga*, *Atipravratti* (Obstruction, Excessive flow)
Adhishthana (Origin site)	*Pakwashaya* (Large intestine)	*Hridaya* (Heart)
Adhishthana (Seat of disease expression)	*Vrikka* (Kidneys)	*Rakta Dhatu* (Blood tissue)

1. The Samprapti and Nidan Parivarjana

The combined occurrence of CKD and Hypertension represents a complex systemic disorder resulting from vitiation of multiple *Doshas* and *Dhatus*. According to *Ayurveda*, improper dietary and lifestyle practices such as excessive intake of salty, oily, heavy, and incompatible foods (*Viruddha Ahar*), combined with sedentary habits, psychological stress, and suppression of natural urges (*Vega Dharana*), lead to disturbance of *Agni* (digestive and tissue metabolic fire) and formation of *Ama* (toxins). This results in *Tridosha Dushti*, predominantly involving *Vata, Pitta*, and *Kapha*. The vitiated *Doshas* further affect vital tissues such as *Rasa* (plasma), *Rakta* (blood), *Meda* (fat), *Mutra* (urine), and *Majja* (nervous tissue), progressively disturbing the functioning of key *Srotas* (channels) including *Mutravaha, Raktavaha*, and *Hridayavaha*.

Due to the chronicity and severity of these disturbances, pathological processes such as *Sanga* (obstruction), *Vimarg Gaman* (abnormal flow like proteinuria), *Atipravritti* (excessive flow), and *Khavaigunya* (structural weakness of the channels) develop. Over time, this manifests clinically as impaired kidney function (*Vrikk Dushti*), and persistent elevation of blood pressure (*Raktavaha Srotodushti*). The origin of these pathological processes is linked to sites like the *Pakvashaya* (large intestine) and *Yakrit* (liver), indicating the systemic nature of these conditions.

To prevent further progression and complications, strict *Nidan Parivarjana* (avoidance of causative factors) is essential. This includes abstaining from salty, sour, heavy, oily, and processed foods, avoiding alcohol, tobacco, and excessive dairy or red meat consumption. Lifestyle modifications such as avoiding sedentary habits, excessive exertion, irregular sleep, and mental stress are equally important. Psychological factors like anxiety, fear, and grief should be addressed through appropriate counseling and supportive therapies. Additionally, regular monitoring of blood pressure and renal function, along with adherence to both *Ayurvedic* and modern medical regimens, is crucial to prevent disease exacerbation and improve overall prognosis [19, 20, 21].

2. The Effects of *Ayurvedic* Medicines

The combined occurrence of CKD and hypertension involves *Mutravaha Srotas* (renal channels) and *Raktavaha Srotas* (circulatory system), leading to *Ama* accumulation, *Srotorodha* (blockages), and *Dosha* vitiation. *Ayurvedic* formulations like Mutra Vardhak Vati, CKD Syrup, CKD

Tablet, Kidney Shuddhi Ark, Mutral Vati, GFR Powder, Nephron Plus, and Chander Vati help in breaking this pathogenesis. These medicines act as *Mutrala* (diuretics), *Srotoshodhaka* (channel-cleansing agents), *Rasayana* (rejuvenators), and *Raktavardhaka* (blood-enhancing agents), helping to reduce fluid retention, lower blood pressure, improve kidney filtration, and enhance hemoglobin levels. They support glomerular filtration, regulate metabolic functions, and prevent oxidative damage, thereby reducing cardiovascular complications. Additionally, these therapies promote detoxification, correct *Vata-Kapha* vitiation, and improve circulation, preventing further deterioration of renal health. This *Ayurvedic* approach offers a promising alternative to conventional management, supporting overall well-being in CKD and hypertension patients. *Gokshur*, present in most of the medicines including Mutra Vardhak Vati, CKD Syrup, CKD Tablet, Kidney Shuddhi Ark, GFR Powder, and Mutral Vati, possesses *Madhura Rasa* (sweet taste), *Sheeta Virya* (cold potency), *Madhura Vipaka* (sweet post-digestive effect), and *Balya*, *Mutral, Shothahar* properties. It acts as an excellent diuretic (*Mutral*), reduces inflammation in the urinary tract, supports renal function, and prevents urinary calculi formation, making it highly beneficial in CKD where urinary output is compromised [22]. *Haritaki*, found in Mutra Vardhak Vati, Chander Vati, CKD Tablet, GFR Powder, and Mutral Vati, is known for its *Kashaya Rasa* (astringent taste) dominance along with *Madhura, Amla*, and *Tikta Rasa, Ushna Virya* (hot potency), and *Madhura Vipaka*. It is a known *Rasayana* (rejuvenator), digestive stimulant (*Agnideepan*), mild laxative, and detoxifier, which collectively help in reducing *Ama* accumulation, correcting metabolic disturbances, and preventing progression of renal dysfunction [23]. *Amla,* present in Mutra Vardhak Vati, Chander Vati, and Kidney Shuddhi Ark, offers a predominance of *Amla Rasa* (sour taste), *Sheeta Virya*, and *Madhura Vipaka*. It is a potent antioxidant and *Rasayana*, improves immunity, pacifies *Pitta*, and strengthens tissues, which helps in reducing oxidative stress and delaying CKD progression [24]. *Pippali* and *Kalimirch*, both present in Mutra Vardhak Vati and Chander Vati, exhibit *Katu Rasa* (pungent taste), *Ushna Virya*, and *Madhura Vipaka*. They are potent bioavailability enhancers, *Deepan* (appetizer), and *Amapachak* (toxin digesters), thereby improving digestion, reducing metabolic waste accumulation, and aiding in better absorption of renal protective herbs [25,26]. *Giloy*, commonly found in CKD Syrup, Chander Vati, CKD Tablet, provides *Tikta* (bitter) and *Kashaya* (astringent) *Rasa, Ushna Virya*, and *Madhura Vipaka*. It is highly effective as a *Rasayana, Raktashodhak* (blood purifier), and anti-inflammatory, offering immunomodulatory benefits and reducing systemic inflammation associated with CKD [27]. *Punarnava*, present in CKD Tablet, Kidney Shuddhi Ark, and GFR Powder, holds *Tikta, Kashaya, Madhura Rasa, Ushna Virya,* and *Katu Vipaka*. It is a classical *Mutral* (diuretic), *Shothahar* (anti-inflammatory), and *Vrikkadoshahar* (kidney toxin eliminator), making it indispensable in CKD management by promoting diuresis, reducing swelling, and supporting kidney detoxification [28]. These herbs collectively act through their synergistic *Ras Panchaka* and therapeutic actions to alleviate renal inflammation, promote urine output, detoxify the system, correct metabolic imbalances, pacify aggravated *Vata-Pitta-Kapha,* and rejuvenate the renal tissues, thereby slowing the progression of CKD and improving quality of life.

3. The effects of *Ahar-Vihar*

The diet emphasizes a holistic approach to health by integrating proper dietary habits (*Aahar*) and lifestyle practices (*Vihar*) in line with *Ayurvedic* principles. The *Aahar* component focuses on consuming fresh, homemade meals with minimal oil and spices, incorporating whole grains, pulses, fruits, and vegetables, while avoiding dairy products, bakery items, jaggery-based foods, packaged or salty foods, alcohol, and soft drinks. Eating is recommended at regular intervals with moderation, avoiding both overeating and prolonged fasting [29]. *Vihar* emphasizes regular physical activity, meditation, proper sleep patterns (rising before 6:00 AM and sleeping by 9:00 PM), mindful eating with thorough chewing, and adequate hydration. Adherence to these *Aahar-Vihar* principles under the DIP diet promotes improved digestion, weight management, enhanced immunity, better skin health, increased energy, and a reduced risk of chronic diseases such as diabetes, hypertension, and obesity. Overall, integrating these practices supports a balanced, healthful lifestyle and complements therapeutic interventions for systemic well-being [30].

This case study highlights the benefits of *Ayurvedic* treatments for managing CKD. *Ayurvedic* treatments offer a cost-effective approach targeting underlying imbalances, improving renal function, and addressing coexisting conditions like hypertension. Further research is needed to confirm their effectiveness and safety in CKD management.

Implications for Future Research

This study, conducted on a CKD patient with hypertension, showed promising results. However, due to the limited sample size of a single case, a more extensive evaluation is needed. Future research should focus on randomized controlled trials with larger sample sizes to validate the safety, efficacy, and reliability of *Ayurvedic* treatments. These studies will play a key role in establishing standardized therapeutic guidelines and treatment approaches.

Conclusion

This case study evaluating the treatment of CKD with hypertension through *Ayurvedic* interventions yields the following findings:

Symptoms: After the treatment, a marked improvement was observed in the patient's clinical condition. Pedal oedema reduced from grade 3 to grade 1. Itching severity decreased from 4/10 to 0/10, indicating complete relief. Urinary characteristics improved from smelly and frothy to clear. Dyspnea (breathlessness) showed significant improvement, with the severity score reducing from 9/10 to 2/10.

Vitals: The patient's blood pressure was reduced from 160/80 mmHg to 140/90 mmHg.

Investigations: Laboratory tests conducted during the treatment showed significant improvements in renal function. Serum urea levels decreased gradually from 198.2 mg/dL to 146.3 mg/dL, indicating enhanced kidney function. Similarly, serum creatinine levels reduced from 8.72 mg/dL to 5.96 mg/dL. These results underscore the potential efficacy of *Ayurvedic* therapies in managing CKD.

Ayurvedic therapies for managing CKD showed positive results, improving lab tests, vital signs, and symptoms. *Ayurvedic* treatments focus on restoring balance and addressing imbalances, enhancing renal health. Further clinical trials are needed to confirm these findings and establish standardized treatment methods for CKD.

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