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Integrating Ayurvedic Therapies in Chronic Kidney Disease Management: A Case Report on Symptom Improvement and Renal Function Enhancement

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ABSTRACT

Chronic kidney disease (CKD) affects 10–15% of adults globally and is often underdiagnosed due to limitations in standard serum creatinine assessments. This case report presents a 56-year-old male with a 1.5-year history of CKD and 5 years of hypertension, treated at Jeena Sikho Lifecare Limited Hospital, Derabassi, with a comprehensive Ayurvedic regimen including medicines and Panchakarma therapies. The patient showed marked improvement in multiple clinical parameters: pedal oedema decreased from grade 4° to 1°, pain resolved completely (3/10 to 0/10), sleep quality improved from 3/10 to 7/10, and itching, initially rated 6/10, was fully alleviated. Vital signs stabilized, with blood pressure maintained at 120/80 mmHg, and body weight reduced from 82 kg to 73 kg, reflecting positive effects of lifestyle and dietary modifications. Laboratory investigations demonstrated gradual improvement and stabilization, with haemoglobin ranging from 7.1 to 9.3 gm/dL, urea decreasing from 200.85 mg/dL to 66.5 mg/dL, creatinine improving from 7.25 mg/dL to 5.61 mg/dL, and uric acid declining from 9.87 mg/dL to 6.87 mg/dL. Overall, the patient achieved normalization of clinical and laboratory parameters, highlighting the potential of Ayurveda as a safe, cost-effective, and integrative approach for managing CKD, particularly for patients seeking holistic healthcare solutions.

INTRODUCTION

Chronic kidney disease (CKD) is a prevalent condition that affects 10-15% of adults and is characterized by progressive kidney damage or diminished function ^[1]. Approximately 7% of the general population is affected by CKD, which significantly contributes to morbidity and mortality, particularly due to its association with cardiovascular disease ^[2]. CKD has become a major global public health issue,

marked by the gradual deterioration of kidney function ^[3]. The prevalence of CKD is rising, particularly among older populations. This disease impairs renal function and often goes undiagnosed because serum creatinine levels may not reliably indicate changes in glomerular filtration rate (GFR) ^[4]. Screening is recommended for individuals at high risk, including those with hypertension, diabetes and cardiovascular disease ^[5]. CKD is categorized into five stages based on estimated glomerular filtration rate (eGFR), with

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stage 3 being the most prevalent [6]. Most kidney diseases remain asymptomatic until significant loss of kidney function occurs, underscoring the importance of early detection and ongoing monitoring [7].

In India, the prevalence of CKD varies widely, ranging from 0.89% to 17.2%, with notable regional differences. Contributing factors include lifestyle diseases, poverty and limited access to healthcare, especially in rural areas, leading to delayed diagnosis and management difficulties [8]. The main causes of CKD include diabetes mellitus, systemic hypertension, and chronic glomerulonephritis, which together account for around 75% of adult CKD cases [9]. Diabetes and hypertension contribute to 40-50% of CKD cases in India. Early detection and screening of high-risk populations are essential, as around 100,000 patients develop End-Stage Renal Disease (ESRD) each year, with limited access to treatment [10]. Only 3-5% of ESRD patients receive treatment, highlighting the urgent need for preventive measures [11]. The prevalence of CKD in India is rising

significantly, with mortality increasing from 0.59 million in 1990 to 1.18 million in 2016. Around 175,000 individuals are on chronic dialysis, resulting in a prevalence rate of 129 per million people [12]. Economic barriers limit access to treatment, with only 3-5% of ESRD patients receiving renal replacement therapy, underscoring the silent epidemic of CKD [13].

In *Ayurveda*, hypertension is not classified as a specific disease (*Vyadhi*) but is understood as a result of *Dosha* imbalances, affecting *Dushyas* and related *Srotas*, the *Samprapti Ghataka* (elements of pathogenesis) is mentioned in **Table 1** [14]. Blood pressure regulation in *Ayurveda* involves complex mechanisms, considering short-term neural responses and long-term renal, hormonal and vascular pathways [15]. The holistic approach of *Ayurveda* focuses on the balance of *Doshas*, strengthening the body's natural healing processes and improving kidney function through lifestyle modifications and *Ayurvedic* treatments [16].

Table 1 The Samprapti Ghataka

Ghataka	Details
Dosha	Predominantly <i>Vata</i> -type <i>Tridosha</i> imbalance (<i>Vata</i> is more affected than <i>Kapha</i> , and <i>Pitta</i> becomes involved in later stages)
Dushya (The affected body tissues)	<i>Rasa</i> (plasma), <i>Rakta</i> (blood), <i>Mamsa</i> (muscle), <i>Meda</i> (fat), <i>Majja</i> (bone marrow), <i>Shukra</i> (reproductive tissue), <i>Mutra</i> (urine)
Srotas (The bodily channels affected)	<i>Mutravaha</i> (urinary channels), <i>Raktavaha</i> (blood-carrying channels), <i>Medovaha</i> (fat-carrying channels), <i>Rasavaha</i> (plasma-carrying channels), <i>Udakavaha</i> (water-carrying channels)
Srotodushti (Pathology of the channels)	Obstruction (<i>Sanga</i>), Wrong passage or abnormal movement (<i>Vimarga gamana</i>), Nodular formations (<i>Granthi</i>)
Udbhava Sthana (Place of origin of disease)	Stomach (<i>Amashaya</i>)
Agni (Digestive fire)	Weak digestive fire (<i>Jatharagni mandya</i>) and defective tissue metabolism (<i>Dhatvagni dushti</i>), especially affecting <i>Rasa</i> and <i>Meda</i> dhatus
Ama (Toxins)	Presence of toxins or undigested material, especially in early or ' <i>saam</i> ' (with <i>ama</i>) stages of the disease
Adhithana (Site of manifestation)	<i>Vrikka</i> (<i>Kidneys</i>)
Vyadhi Swabhava (Nature of the disease)	Manageable with difficulty (<i>Yapya</i>), and curable with difficulty (<i>Krichchhra sadhya</i>)

Ayurvedic treatments focus on restoring balance in the body, addressing the root cause of kidney dysfunction and managing symptoms. For CKD patients, a specialized diet that limits protein, phosphorus and sodium intake is essential to slow the disease's progression [17]. *Ayurvedic* diet recommendations integrate these dietary restrictions while

offering personalized guidance to manage symptoms and improve quality of life. *Ayurvedic* herbs such as turmeric, ginger and *Punarnava*, known for their anti-inflammatory and antioxidant properties, are particularly beneficial for supporting kidney health [18-24].

OBJECTIVE

This study aims to assess the impact of Ayurvedic interventions combined with allopathic medicines for CKD with hypertension in a 56-year-old male patient.

MATERIALS AND METHODS

CASE REPORT

A 56-year-old male with a history of CKD for 1 and a half years and hypertension for 5 years visited Jeena Sikho Lifecare Limited Hospital, Derabassi, Punjab, India on March 4, 2024. A detailed and systematic examination was executed, including a whole medical history, family history, physical checkup and diagnostic assessments. His symptoms

were weakness, itching, back ache, gastric issues and frothy urine. The patient has a history of stroke 25 years ago. The vital signs along with *Ashta vidh pariksha* examination report during admission and discharge is detailed in **Table 2**. The patient was admitted for 10 days, during that period he received consolidated *Ayurvedic* treatments. This treatment procedure encompassed *Panchkarma* therapies such as *Matra Basti* with *Gokshura* and *Punarnava oil*, *Shiroabhyangam* with *Brahmi oil* and *Ksheerabala oil* and *Awagah Swedan* and HDT. These therapies were revised after 5 days to therapies such as *Awagah Swedan*, *Punarnava* and *Varuna Siddha Sneha Basti*, *Guduchi* and *Varuna Kashaya Basti*, *Shiropichu* with *Brahmi oil* and *Vrikk Basti* with *Varunadi oil*. Laboratory investigations observed during investigations conducted on the May 05, 2024 are detailed in **Table 3**. Laboratory investigations conducted during the treatment are mentioned in **Table 4**. The patient was afterward discharged on March 13, 2024. The basic vital examinations done during the visits is noted in **Table 5**.

Table 2 Vitals during the initial examination on first day of the visit

Parameter	March 4, 2024	March 13, 2024
Temperature	96.8°F	98.2°F
Blood Pressure	110/80 mm of Hg	130/80 mm of Hg
Pulse Rate	90/min	68/min
Weight	82 Kg	81 Kg
Oxygen Saturation	99%	99%
Respiration/min	18	18
<i>Nadi</i>	<i>Pittaj Kaphaj</i>	<i>Vataj Pittaj</i>
<i>Mutra (Urine)</i>	<i>Phenil Mutra (Frothy)</i>	<i>Avikrit (Normal)</i>
<i>Mala (Stool)</i>	<i>Avikrit (Normal)</i>	<i>Avikrit (Normal)</i>
<i>Jiwha (Tongue)</i>	<i>(Saam) Mild Coated</i>	<i>Avikrit (Normal)</i>
<i>Shabda (Voice)</i>	<i>Spashta (Clear)</i>	<i>Spashta (Clear)</i>
<i>Sparsha (Touch)</i>	<i>Anushna sheet (Normal)</i>	<i>Anushna sheet (Normal)</i>
<i>Drik (Eye)</i>	<i>Avikrit (Normal)</i>	<i>Avikrit (Normal)</i>
<i>Akriti (Physique)</i>	<i>Madhyam</i>	<i>Madhyam</i>

Table 3 Laboratory investigations observed during the date of admission

Parameter	Findings
Date	05-03-2024
Haemoglobin	8.5 gm/dL
Intact PTH	476.30 pg/dL
Rapid Tests	Non-reactive for HIV, HBsAg, and HCV
Pus cells	1-2
Epithelial cells	2-3
Total RBC	2.84 Mill/Cumm
MCH	29.9 pg
MCHC	38.20%
PCV/HCT ratio	24.1
eGFR	08 ml/min/1.73m ²
Lymphocytes	17%
Neutrophils	78%
Lipid Profile	
Total Cholesterol	144.87 mg/dL
HDL	34.27 mg/dL
LDL	73.13 mg/dL
VLDL	37.53 mg/dL
Cholesterol/HDL Ratio	4.23
Triglycerides	187.66 mg/dL

Table 4. Laboratory reports during the treatment period including follow ups (Fig 1)

Parameter	Findings								
Date	05 March 2024	08 March 2024	11 March 2024	19 March 2024	30 March 2024	14 April 2024	12 May 2024	26 May 2024	09 June 2024
Haemoglobin	8.5 gm/dL	9.2 gm/dL	9.3 gm/dL	7.6 gm/dL	-	7.4 gm/dL	8.9 gm/dL	7.1 gm/dL	8.5 gm/dL
Urea	200.85 mg/dL	200.05 mg/dL	154.3 mg/dL	100 mg/dL	92 mg/dL	82 mg/dL	78.9 mg/dL	84 mg/dL	66.5 mg/dL
Creatinine	7.25 mg/dL	7.49 mg/dL	6.87 mg/dL	5.85 mg/dL	5.1 mg/dL	5.66 mg/dL	5.84 mg/dL	6.27 mg/dL	5.61 mg/dL
Uric acid	9.87 mg/dL	8.67 mg/dL	7.41 mg/dL	7.4 mg/dL	6.5 mg/dL	6.8 mg/dL	7.44 mg/dL	4.6 mg/dL	6.87 mg/dL
Sodium	144 mEq/L	146.3 mEq/L	145.3 mEq/L	135 mEq/L	140 mEq/L	140 mEq/L	-	142 mEq/L	-
Potassium	4.43 mEq/L	4.73 mEq/L	5.20 mEq/L	5.1 mEq/L	5.2 mEq/L	5.0 mEq/L	-	5.0 mEq/L	-
Chloride	98.2 mEq/L	101.5 mEq/L	102.6 mEq/L	105 mEq/L	109 mEq/L	107 mEq/L	-	105 mEq/L	-
Calcium	-	-	-	7.3 mEq/L	7.8 mEq/L	8.2 mEq/L	-	7.7 mEq/L	6.30 mEq/L
Phosphorous	-	-	-	4.1 mEq/L	4.4 mEq/L	4.8 mEq/L	-	4.4 mEq/L	-

Table 5. The basic vital examinations done during the visits

Parameter	Findings							
Date	05 March 2024	08 March 2024	11 March 2024	14 April 2024	12 May 2024	27 May 2024	29 June 2024	
Blood pressure	130/80 mmHg	130/90 mmHg	120/80 mmHg	140/100 mmHg	130/80 mmHg	110/70mmHg	130/90 mmHg	
Pulse rate	74/ Min	92/Min	74/Min	64/Min	86/Min	86/Min	67/Min	
Weight	82 Kg	78 Kg	77.7 Kg	81 Kg	79 Kg	80 Kg	73 Kg	
SpO2	99%	99%	98%	98%	-	99%	99%	

Treatment Plan

Ayurvedic and Disciplined and Intelligent Person's (DIP) Diet Plan ^[25]:

The dietary guidelines provided by Jeena Sikho Lifecare Limited Hospital include the following key commendations:

.Avoid wheat, refined foods, dairy products, coffee, tea and packaged foods [26].

.Do not eat after 8 PM.

.When eating solid foods, take small bites and chew 32 times.

b. Hydration:

.Sip water slowly, ensuring you are mindful of the amount you consume each time.

.Drink approximately 1 liter of alkaline water 3 to 4 times a day.

.Make herbal tea, living water and turmeric-infused water a regular part of your daily routine.

.Boil 2 liters of water and reduce it to 1 liter before consuming.

c. Millet Intake^[27] :

.Include five types of millet into your diet: Foxtail (*Setaria italica*), Barnyard (*Echinochloa esculenta*), Little (*Panicum sumatrense*), Kodo (*Paspalum scrobiculatum*) and Browntop (*Urochloa ramosa*) ^[28,29,30].

.Cook millets using mustard oil in steel cookware

d. Meal Timing and Structure: (Table 6)

Time	DIP Diet
Early Morning (5:45 AM)	Started with herbal tea, one curry leaf (for 1 minute) or five curry leaf minutes), along with raw ginger and turmeric.
Breakfast (9:00-10:00 AM)	The patient had steamed seasonal fruits, <i>mugda yusha</i> , and a fermented mi (containing 4-5 varieties).
Morning Snacks (11:00 AM)	Red juice (150 ml) and soaked almonds will be provided.
Lunch (12:30 PM - 2:00 PM)	The patient received two plates: Plate 1 contained a steamed salad, while Plate 2 contained a cooked millet-based dish

e. Fasting:

. It was advised to observe one-day fasting.

f. Special Instructions:

.Express gratitude to the divine before consuming food or drinks.

.Sit in *Vajrasana* (a yoga posture) after each meal.

.10 minutes slow walk after every meal.

g. Diet Types:

.The diet consists of low salt solid, semi-solid and smoothie options.

.Recommended foods include herbal tea, red juice, green juice, a range of steamed fruits, fermented millet shakes, soaked almonds and steamed salads.

Lifestyle Recommendations

1. Include meditation for relaxation.
2. Engage in Yoga (*Sukhasana* and *Sukshma pranayama*) from 6:00 AM to 7:00 AM
3. Practice barefoot brisk walk for 30 minutes.
4. Ensure 6-8 hours of quality sleep each night.
5. Adhere to a structured daily routine.

Panchkarma procedures administered to patients

1. *Awagah Swedan*^[31]

- The patient was submerged in a tub of warm water,

with the water level reaching the navel.

- Sweating was promoted by keeping the water temperature at 42° Celsius.
- The patient was instructed to undergo this procedure for 20 to 60 minutes.

2. HDT^[31]

.The patient was placed on the therapy table that tilts the body so that the head is positioned below the level of the heart. The tilt angle usually ranges from 5-10 degrees.

.The patient remains in the tilted position for a set period, typically between 5 and 15 minutes.

.After the therapy, the patient is carefully and slowly returned to a neutral or upright position to prevent dizziness or discomfort.

3. *Matra Basti with Gokshura and Punarnava oil*^[32]

.Before the procedure, *Punarnava* and *Gokshura* was prepared by indirectly heating in water.

.The patient was rested in a relaxed position, lying on their left side with knees drawn up.

.Using an enema bulb or *Basti* tube, the nozzle was gently inserted into the rectum and administered approximately 120 ml of the medicated oil.

.The patient was advised to hold the oil inside for 15–30 minutes to allow absorption and therapeutic effects.

.After the treatment, the patient was advised to avoid physical exertion, stay warm and ideally lie down for 30–45 minutes.

4. *Abhyangam with Brahmi and Ksheera-bala oil* [33,34]

.The therapy was started by applying Brahmi oil to the scalp and gently massaging in circular motions to soothe the mind. *Ksheerabala* oil was used for the body, applying it with long, flowing strokes along the limbs and using circular motions around the joints and muscles.

.Smooth and long strokes were done for the limbs and kneading motions on the joints and muscles to release tension. Particular attention was paid to *Vata*-sensitive areas such as the elbows, knees and ankles, helping to nourish and hydrate the tissues.

.The oil was allowed to remain on the body for 10-15 minutes to fully absorb, then recommended a warm bath to remove any excess oil.

5. *Punarnava and Varuna Siddha Sneha Basti* [35,36]

.The patient was rested on his left side with knees bent, in a relaxed state.

.A mixture of *Punarnava* and *Varuna* oils was prepared and warmed to a comfortable temperature.

.The warm medicated oil (90 ml) mixture was slowly administered into the rectum using an enema bulb or *Basti* tube.

.The patient retained the *Basti* for 15–30 minutes to allow absorption through the rectal mucosa, promoting detoxification and reducing edema.

.After retention, the patient gently emptied their bowels and rest for 30–45 minutes.

.This was done alternate with *Guduchyadi* and *Varunadi Kashaya Basti*.

6. *Guduchyadi and Varunadi Kashaya Basti* [37,38]

.*Guduchyadi* and *Varunadi Kashaya* were prepared by boiling in water until the liquid is reduced by one-fourth.

.The prepared *Kashaya* warmed to a comfortable temperature and administered the decoction (350ml) into the rectum using a *Basti yantra*.

.The patient was advised to retain the *Kashaya* inside the body for 15-30 minutes.

.This was done alternate with *Punarnavadi* and *Varunadi Siddha Sneha Basti*.

7. *Shiropichu with Brahmi oil* [39]

.*Brahmi* oil was warmed up to a comfortable temperature and apply it gently to the scalp, focusing on the crown of the head.

.Massage in circular motion was done to ensure the oil covers the entire scalp.

.A soft cloth or cotton pad soaked in the *Brahmi* oil and placed on the scalp and left for 20-30 minutes to allow the oil to nourish and penetrate the scalp.

8. *Vrikk Basti with Varunadi oil* [40]

.The patient lies in a prone position, a dough ring (made from black gram/wheat flour) was placed over the kidney region (L1–L3).

.Lukewarm *Varunadi* Oil (39–41°C) was poured inside the dough ring and retained for 20–30 minutes.

.The oil temperature was maintained by reheating if needed, ensuring continuous warmth and absorption.

.The oil was removed, the area was cleaned, and the patient rested for 15–30 minutes, followed by dietary and lifestyle recommendations.

Medicinal Interventions

Allopathic medications (Table 7):

Along with *Ayurvedic* medications, previously prescribed necessary allopathic medicines like Nifedipine (20mg), Sodium Bicarbonate (500mg), Febuxostat (40mg), Torasemide (10mg) and Metoprolol Succinate (23.75mg) were also administered.

Ayurvedic medications

The *Ayurvedic* treatment employed in this case included Divya Shakti Powder, GFR Powder, Chander Vati, Renal support syrup, Charma Rog Har Vati, URI Plus Tablet, FE Capsule, Dhatu Poshak Capsule, Sama vati, Yakrit Shoth Har Vati, Hemotone Syrup, GE- Liv Forte Syrup, Vrikka tonic and Asthiposhak. The medicines administered during the treatment period with Anupana is mentioned in **Table 8** and the description of medicines is provided in **Table 9**.

Table 7. Allopathic medicine taken during IPD

Medicine	Dose	04-Mar	05-Mar	06-Mar	07-Mar	08-Mar	09-Mar	10-Mar	11-Mar	12-Mar
Nifedipine (20mg)	BD	SOS	×	×	×	×	×	×	×	×
Sodium Bicarbonate Tablet	TDS	✓	BD	BD	BD	BD	BD	BD	BD	BD
Febuxostat (40mg)	OD	✓	✓	BD	✓	✓	✓	✓	✓	✓
Torasemide (40mg)	BD	✓	✓	✓	✓	✓	✓	✓	✓	✓
Metoprolol Succinate (23.75mg)	HS	✓	✓	✓	✓	✓	✓	✓	✓	✓

Table 8. The Ayurvedic medicines administered during IPD

Date	Medicines	Dosage with <i>Anupana</i>
04-03-2024	Chander Vati	2 BD (<i>Adhobhakta</i> with <i>koshna jala</i> - After meal with lukewarm water)
	GFR Powder	Half a teaspoon BD (<i>Adhobhakta</i> with <i>koshna jala</i>)
	Renal Support Syrup	15 ml TDS (<i>Adhobhakta</i> with <i>sama matra koshna jala</i> - After meal with equal amount of lukewarm water)
	Blood Purifier Syrup	20 ml BD (<i>Adhobhakta</i> with <i>sama matra koshna jala</i>)
13-03-2024	Divya Shakti Powder	Half a teaspoon HS (<i>Nishikal</i> with <i>koshna jala</i> - Before bed with lukewarm water)
	GFR Powder	Half a teaspoon BD (<i>Adhobhakta</i> with <i>koshna jala</i>)
	Chander Vati	2 TAB BD (<i>Adhobhakta</i> with <i>koshna jala</i>)
	Renal support syrup	20 ml BD (<i>Adhobhakta</i> with <i>sama matra koshna jala</i>)
	Charma Rog Har Vati	2 TAB BD (<i>Adhobhakta</i> with <i>koshna jala</i>)
14-04-2024	Divya Shakti Powder	Half a teaspoon HS (<i>Nishikal</i> with <i>koshna jala</i>)
	GFR Powder	Half a teaspoon BD (<i>Adhobhakta</i> with <i>koshna jala</i>)
	Chander Vati Tablet	2 TAB BD (<i>Adhobhakta</i> with <i>koshna jala</i>)
	FE Capsule	2 Capsule BD (<i>Adhobhakta</i> with <i>koshna jala</i>)
	Dhatu Poshak Capsule	2 Capsule BD (<i>Adhobhakta</i> with <i>koshna jala</i>)

12-05-2024	Divya Shakti Powder	Half a teaspoon HS (<i>Nishikal with koshmajala</i>) (hold if loose stool)
	GFR Powder	Half a teaspoon BD (<i>Adhobhakta with koshmajala</i>)
	Chander Vati	2 TAB BD (<i>Adhobhakta with koshmajala</i>)
	Renal support syrup	20 ml BD (<i>Adhobhakta with samamatra koshmajala</i>)
	Sama vati	2 TAB BD (<i>Adhobhakta with koshmajala</i>)
	Yakrit Shoth Har Vati	2 TAB BD (<i>Adhobhakta with koshmajala</i>)
27-05-2024	GFR Powder	Half a teaspoon BD (<i>Adhobhakta with koshmajala</i>)
	Chander Vati	2 TAB BD (<i>Adhobhakta with koshmajala</i>)
	Sama vati	2 TAB BD (<i>Adhobhakta with koshmajala</i>)
	Hemotone Syrup	20 ml BD (<i>Adhobhakta with sama matra koshmajala</i>)
	GE- Liv Forte Syrup	20 ml BD (<i>Adhobhakta with sama matra koshmajala</i>)
29-06-2024	GFR Powder	Half a teaspoon BD (<i>Adhobhakta with koshmajala</i>)
	Vrikka tonic	20 ml BD (<i>Adhobhakta with sama matra koshmajala</i>)
	Asthiposhak	2 TAB BD (<i>Adhobhakta with koshmajala</i>)
	Chander Vati	2 TAB BD (<i>Adhobhakta with koshmajala</i>)
	Sama vati	2 TAB BD (<i>Adhobhakta with koshmajala</i>)

Table 9. The details of Ayurvedic medicines

Medicine Name	Ingredients	Therapeutic Effects
Chander Vati	Kapoor Kachri (<i>Hedychium spicatum</i>), Vacha (<i>Acorus calamus</i>), Motha (<i>Cyperus rotundus</i>), Kalmegh (<i>Andrographis paniculata</i>), Giloy (<i>Tinospora cordifolia</i>), Devdaru (<i>Cedrus deodara</i>), Desi Haldi (<i>Curcuma longa</i>), Atees (<i>Aconitum heterophyllum</i>), Daru Haldi (<i>Berberis aristata</i>), Pipla Mool (<i>Piper longum</i> root), Chitrak (<i>Plumbago zeylanica</i>), Dhaniya (<i>Coriandrum sativum</i>), Harad (<i>Terminalia chebula</i>), Bahera (<i>Terminalia bellirica</i>), Amla (<i>Phyllanthus emblica</i>), Chavya (<i>Piper chaba</i>), Vayavidang (<i>Embelia ribes</i>), Pippal (<i>Piper longum</i>), Kalimirch (<i>Piper nigrum</i>), Saunth (<i>Zingiber officinale</i> dried ginger), Gaj Pipal (<i>Scindapsus officinalis</i>), 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 (<i>Elettaria cardamomum</i> - small cardamom), Dalchini (<i>Cinnamomum verum</i>), Tejpatra (<i>Cinnamomum tamala</i>), Danti (<i>Baliospermum montanum</i>), Nishothra (<i>Operculina turpethum</i>), Vanslochan (<i>Bamboosilica</i>), Loh Bhasm (Iron ash - Ayurvedic preparation), Shilajeet (<i>Asphaltum punjabinum</i>), Guggul (<i>Commiphora wightii</i>).	<i>Raktashodhana</i> (Blood purifier), <i>Pitta Shaman</i> (<i>Pitta pacifier</i>), <i>Deepan</i> (Appetizer), <i>Pachan</i> (Digestant), <i>Vata-Pitta Shaman</i> (<i>Dosha pacifier</i>)
GFR Powder	Punarnava (<i>Boerhavia diffusa</i>), Gokshur (<i>Tribulus terrestris</i>), Kaasni (<i>Cichorium intybus</i>), Bhoomi Amla (<i>Phyllanthus niruri</i>), Badi Hard (<i>Terminalia chebula</i>), Makoy (<i>Solanum nigrum</i>) and Apamarg (<i>Achyranthes aspera</i>)	<i>Mutral</i> (Diuretic), <i>Shoth har</i> (Anti-inflammatory), <i>Virechana</i> (Purgation), <i>Raktaprasadana</i> (Blood purifier), <i>Vatanulomana</i> (<i>Vata regulator</i>), <i>Mutravirechana</i> (Urinary purgation), <i>Rasayana</i> (Rejuvenator), <i>Amapachan</i> (Toxin digestant), <i>Kledahara</i> (Moisture remover), <i>Vrikkadoshahara</i> (Kidney toxin eliminator)

Renal Support Syrup	Nimba (<i>Azadirachta indica</i>), Arjun (<i>Terminalia arjuna</i>), Gokshur (<i>Tribulus terrestris</i>), Hareetaki (<i>Terminalia chebula</i>), Ashwagandha (<i>Withania somnifera</i>), Karanja (<i>Pongamia pinnata</i>), Chiraita (<i>Swertia chirayita</i>).	Mutravirajaniya (Urine purifier), Shoth har (Anti-inflammatory), Raktashodhak (Blood purifier), Deepan (Appetizer), Pachan (Digestant), Rasayana (Rejuvenator)
Blood Purifier Syrup	Khair Chaal (<i>Acacia catechu</i>), Babchi (<i>Psoralea corylifolia</i>), Devdaru (<i>Cedrus deodara</i>), Daru Haldi (<i>Curcuma aromatica</i>), Haritaki (<i>Terminalia chebula</i>), Bhera (<i>Terminalia bellerica</i>), Amla (<i>Phyllanthus emblica</i>), Mahamajishtha (<i>Rubia cordifolia</i>), Dhamasa (<i>Gmelina arborea</i>), Sariva (<i>Hemidesmus indicus</i>), Amba Haldi (<i>Curcuma amada</i>), Kutki (<i>Picrorhiza kurroa</i>), Chiraita (<i>Swertia chirayita</i>), Rasont (<i>Ruta graveolens</i>), Satyanashi (<i>Cissampelos pareira</i>), Madhu (Honey), and Shaker (<i>Saccharum officinarum</i>)	Raktashodhak (Blood purifier), Shoth har (Anti-inflammatory), Deepan (Digestive stimulant), Rasayana (Rejuvenator), Vata-Pitta Shaman (Pacifier of Vata and Pitta doshas), Kushtahara (Anti-skin disease)
Divya Shakti Powder	Trikatu (<i>Zingiber officinale</i> , <i>Piper nigrum</i> and <i>Piper longum</i>), Triphala , Nagarmotha (<i>Cyperus rotundus</i>), Vayavidang (<i>Embelia ribes</i>), Chhoti Elaichi (<i>Elettaria cardamomum</i>), Tej Patta (<i>Cinnamomum tamala</i>), Laung (<i>Syzygium aromaticum</i>), Nisoth (<i>Operculina turpethum</i>), Sendha Namak , Dhaniya (<i>Coriandrum sativum</i>), Pipla Mool (<i>Piper longum</i> root), Jeera (<i>Cuminum cyminum</i>), Nagkesar (<i>Mesua ferrea</i>), Amarvati (<i>Achyranthes aspera</i>), Anardana (<i>Punica granatum</i>), Badi Elaichi (<i>Amomum subulatum</i>), Hing (<i>Ferula assafoetida</i>), Kachnar (<i>Bauhinia variegata</i>), Ajmod (<i>Trachyspermum ammi</i>), Sajjikshar , Pushkarmool (<i>Inula racemosa</i>), Mishri (<i>Saccharum officinarum</i>)	Ojakshaya (Loss of vitality/immunity), Agnimandya (Low digestive fire), Chakshukshaya (Weak vision), Deepan (Appetizer), Rasayana (Rejuvenator)
Charma Rog Har Vati	Amla (<i>Emblica officinalis</i>), Haritaki (<i>Terminalia chebula</i>), Behera (<i>Terminalia bellerica</i>), Giloy (<i>Tinospora cordifolia</i>), Guggal (<i>Commiphora wightii</i>), Sonth (<i>Zingiber officinale</i>), Mircha (<i>Piper nigrum</i>), Pippal (<i>Piper longum</i>), Nishoth (<i>Ipomoea turpethum</i>), Danti (<i>Baliospermum montanum</i>).	Raktashodhak (Blood purifier), Twak Shodhana (Skin cleanser), Lekhana (Scraping), Shoth har (Anti-inflammatory), Kushtahara (Anti-leprotic), Stambana (Astringent)
FE Capsule	Makoy (<i>Solanum nigrum</i>), Shilajeet , Yasad Bhasam , Loh Bhasam , Swarn Makshik Bhasam , Mukta Shukti Pishti .	Raktavardhaka (Haematinic), Rasasatmaka (Nutrient-rich), Balyakara (Strengthening), Shukraposhana (Semen nourisher), Deepan (Appetizer)
Dhatu Poshak Capsule	Chuna Shuddh , Shankh Bhasm , Mukta Shukti , Prawal Pishti , Kapardika and Loh	Dhatuposhaka (Tissue nourishing), Rasayana (Rejuvenative), Balya (Strengthening), Srotoshodhak (Channel cleansing), Vata-Pitta shaman (Vata and Pitta balancing), shodhak (Detoxifier), Agni Deepan (Digestive fire stimulant), Lekhana (Scraping / Lipolytic)
Sama vati	Gokshur (<i>Tribulus terrestris</i>), Kaunch (<i>Mucuna pruriens</i>), Shatawar (<i>Asparagus racemosus</i>), Ashwagandha (<i>Withania somnifera</i>), Vidarikand (<i>Pueraria tuberosa</i>), Beej Band Lal (<i>Sida cordifolia</i>), Akarkara (<i>Anacyclus pyrethrum</i>), Talmakhana (<i>Hygrophila auriculata</i>), Musli (<i>Chlorophytum borivilianum</i>), Aawla (<i>Emblica officinalis</i>), Sonth (<i>Zingiber officinale</i>), Jaiphal (<i>Myristica fragrans</i>), Swarn Makshik (<i>Chalcopyrite</i>), Shilajeet Shuddh (<i>Asphaltum punjabianum</i>).	Agnideepan (Digestive stimulant), Pachan (Digestant), Vatanulomana (Vata regulator), Shoth har (Anti-inflammatory), Raktashodhana (Blood purifier), Rasayana (Rejuvenator), Mutral (Diuretic), Srotoshodhana (Channel cleanser), Vishagna (Detoxifier), PittaShaman (Pitta pacifier)
Yakrit Shoth Har Vati	Punarnava (<i>Boerhavia diffusa</i>), Kalimirch (<i>Piper nigrum</i>), Pippali (<i>Piper longum</i>), Vayavidanga (<i>Embelia ribes</i>), Devdaru (<i>Cedrus deodara</i>), Kutha Haldi (<i>Picrorhiza kurroa</i>), Chitrak (<i>Plumbago zeylanica</i>), Harad (<i>Terminalia chebula</i>), Bahera (<i>Terminalia bellerica</i>), Amla (<i>Emblica officinalis</i>), Danti (<i>Baliospermum montanum</i>), Chavya (<i>Piper chaba</i>), Indra Jon (<i>Taraxacum officinale</i>), Pippala Mool (<i>Piper longum</i>), Motha Kalajira (<i>Nigella sativa</i>), Kayphal (<i>Myrica esculenta</i>), Kutaki (<i>Picrorhiza kurroa</i>), Nisoth (<i>Operculina turpethum</i>), Saunth (<i>Zingiber officinale</i>), Kakd Singhi (<i>Cucumis sativus</i>), Ajwain (<i>Trachyspermum ammi</i>), Mandur Bhasma (<i>Ferrum</i>).	Raktashodhak (Blood purifier), Deepan (Appetizer), Pachan (Digestant), Shoth har (Anti-inflammatory), Vata-kapha shamaka (Dosha-balancer), Rasayana (Rejuvenator), Ojovardhaka (Immunity enhancer)

Hemotone Syrup	Draaksha (<i>Vitis vinifera</i>), Aamalaki (<i>Emblica officinalis</i>), Punarnava (<i>Boerhavia diffusa</i>), Ashokam (<i>Saraca asoca</i>), Jambu (<i>Syzygium cumini</i>), Shaariba (<i>Hemidesmus indicus</i>), Haritaki (<i>Terminalia chebula</i>), Lakshmana (<i>Ipomoea sepiaria</i>), Kantakaari (<i>Solanum xanthocarpum</i>), Thaamalaki (<i>Phyllanthus niruri</i>), Katuki (<i>Picrorhiza kurroa</i>), Roheethakam (<i>Thespesia populnea</i>), Vidangam (<i>Embelia ribes</i>), Maricham (<i>Piper nigrum</i>), Pippali (<i>Piper longum</i>), Shundi (<i>Zingiber officinale</i>), Ealam (<i>Elettaria cardamomum</i>), and Sitha (Sugar)	Raktavardhaka (Blood builder), Raktaprasadana (Blood purifier), Rasayana (Rejuvenator), Dhatuposhana (Tissue nourisher), Pitta Shaman (Pitta pacifier), Balya (Strengthening), Agnideepan (Digestive stimulant), Shramahara (Anti-fatigue), Pandughna (Anti-anemic)
GE- LIV Forte Syrup	Bhringraj (<i>Eclipta alba</i>), Kalmegh (<i>Andrographis paniculata</i>), Kutaki (<i>Picrorhiza kurroa</i>), Vidhang (<i>Argyrea nervosa</i>), Nisoth (<i>Operculina turpethum</i>), Daruharidra (<i>Berberis aristata</i>), Chitrak Mool (<i>Plumbago zeylanica</i>), Bhumi Amla (<i>Phyllanthus niruri</i>), and Shadashan (<i>Acorus calamus</i>)	Raktashodhak (Blood purifier), Mutral (Diuretic), Agnideepan (Digestive stimulant), Vatanulomana (Vata regulator), Shoth har (Anti-inflammatory), Rasayana (Rejuvenator), PittaShaman (Pitta pacifier), Srotoshodhana (Channel cleanser)
Vrikka tonic	Punarnava (<i>Boerhavia diffusa</i>), Gokshura (<i>Tribulus terrestris</i>), Varuna (<i>Crataeva nurvala</i>) and Shilajeet	Raktashodhak (Blood purifier), Mutral (Diuretic), Agnideepan (Digestive stimulant), Shoth har (Anti-inflammatory), Vatanulomana (Vata regulator), Rasayana (Rejuvenator)
Asthiposhak	Godanti , Shudh Shilajit (<i>Asphaltum punjabianum</i>), Ashwagandha (<i>Withania somnifera</i>), Tabaqsheer (<i>Bambusa vulgaris</i>), Pippali (<i>Piper longum</i>), Amba Haldi (<i>Curcuma amada</i>), Hadjorh (<i>Cissampelos pareira</i>), Maida Saq .	Asthishamaka (Bone strengthener), Rasayana (Rejuvenator), Vata-pitta Shaman (Vata-Pitta pacifier), Bala vardhaka (Strength enhancer), Shoth har (Anti-inflammatory), Brimhana (Nourisher), Raktashodhak (Blood purifier), Shukra vardhaka (Semen enhancer)

RESULT

After 10 days of IPD, the patient experienced noteworthy development in symptoms, which denotes the interventions used in the study are effective against CKD and hypertension. The graphical representation of pain and itching score during IPD are depicted in Fig 2. Graphical representation of the assessment of the patient’s vital signs are represented in Fig 3. The DTPA scan is depicted in Fig 4. Also, the relief from the weakness, itching, gastric issues and frothy urine shows that the *Ayurvedic* interventions used in the case study are

effective for CKD. The pain, itching, sleep and pedal oedema score during the treatment is showed in Table 10.

Table 10 The pain, itching, sleep and pedal oedema score during the treatment

Conditions	Before treatment	After treatment
Pedal oedema ^[41]	4°	1°
Pain ^[42]	3/10	0
Sleep ^[43]	3/10	7/10
Itching ^[44]	6/10	0

Fig 2 Pain and itching score during IPD before and after treatment

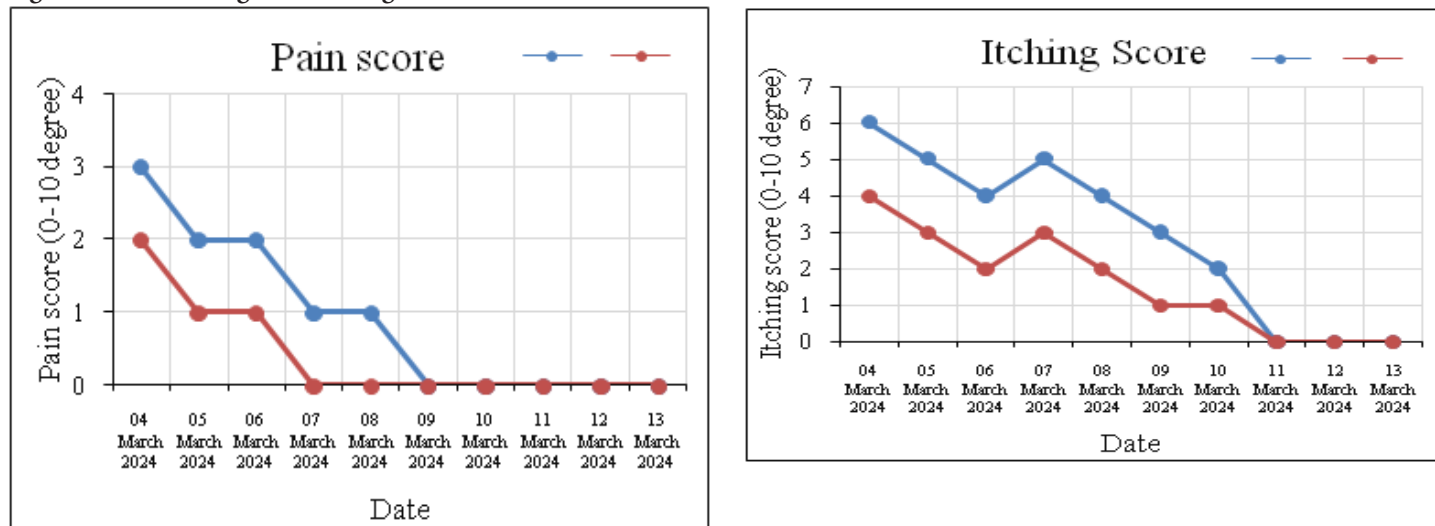
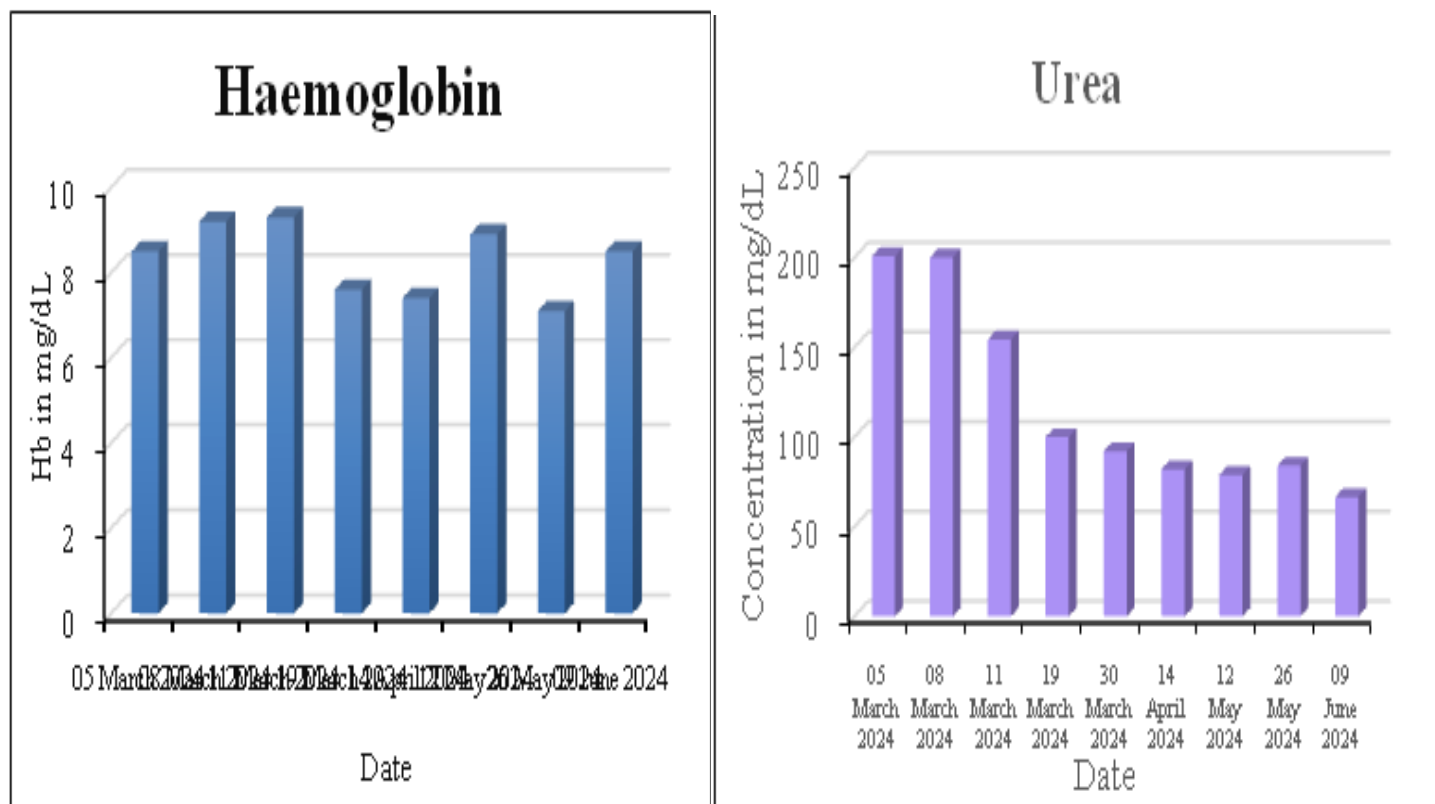
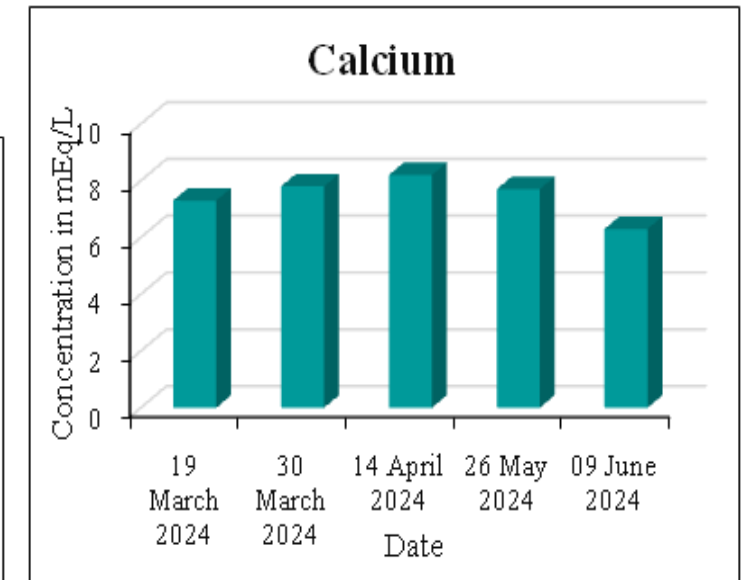
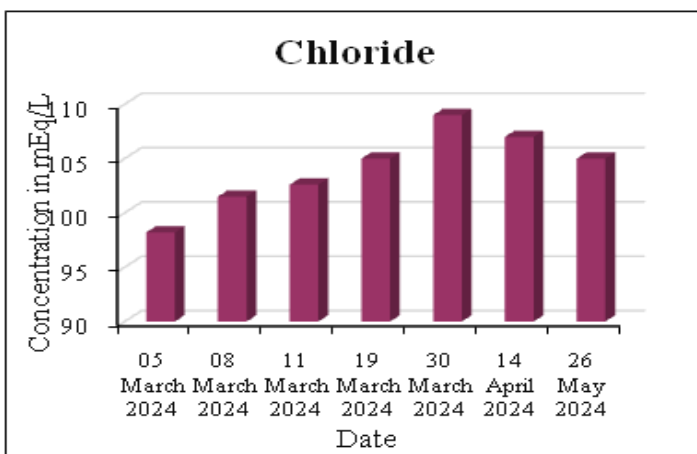
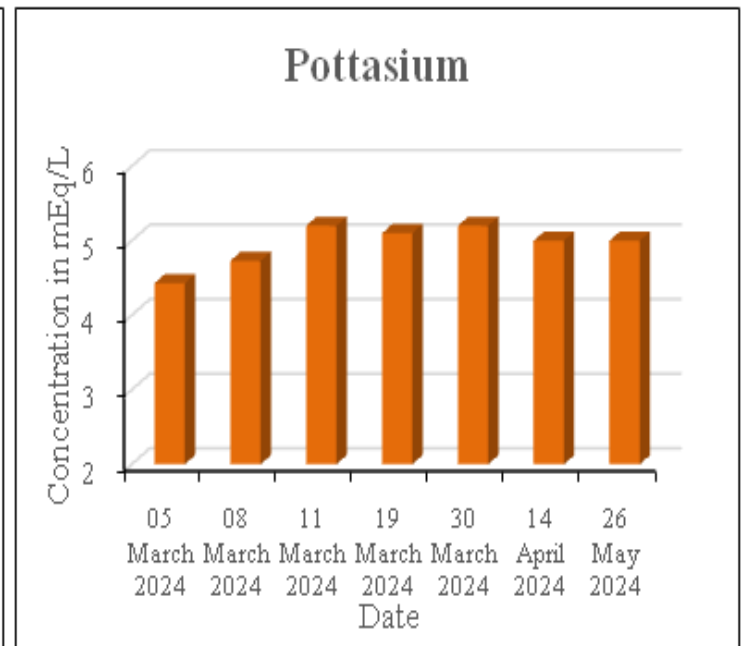
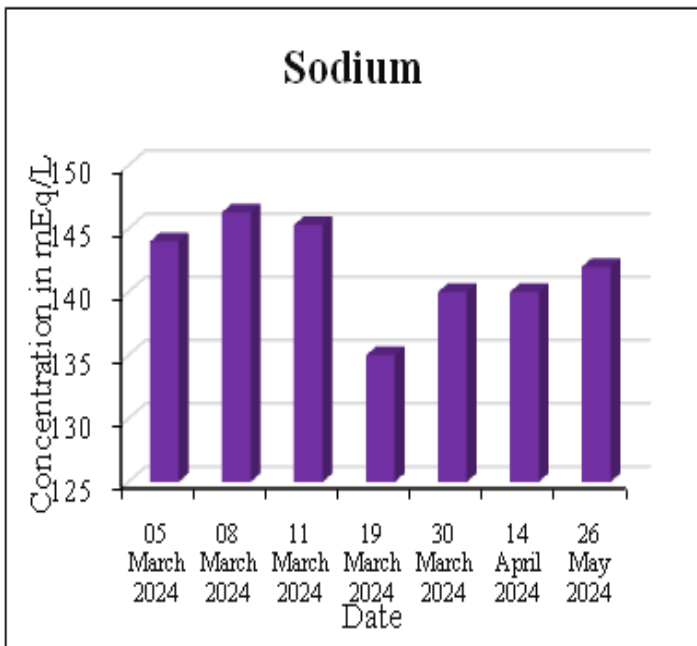
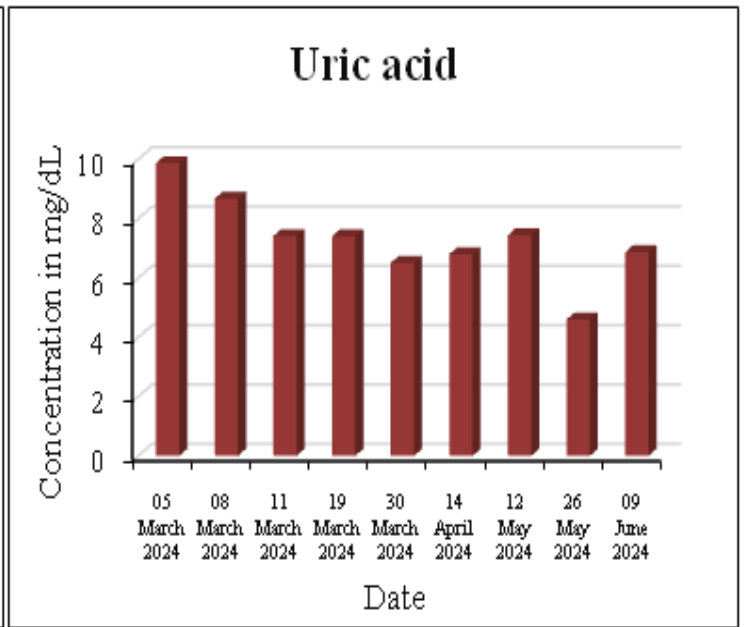
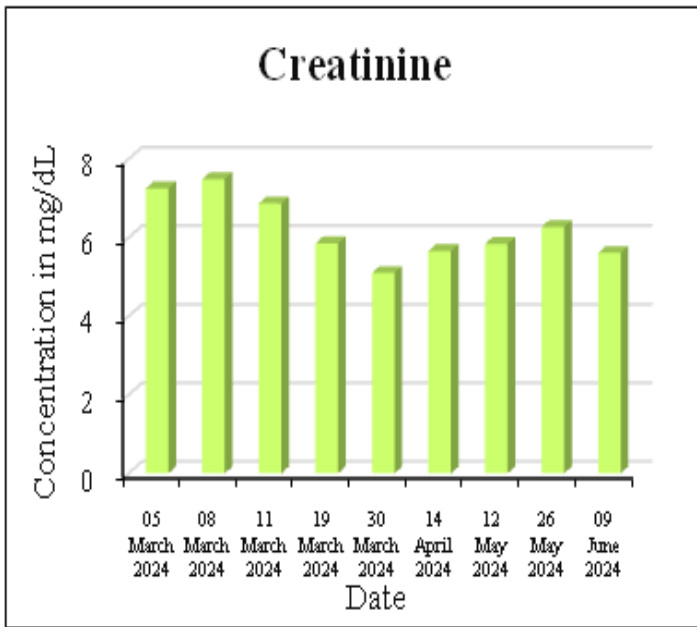


Fig.3 Graphical representation of the assessment of the patient’s vital signs.

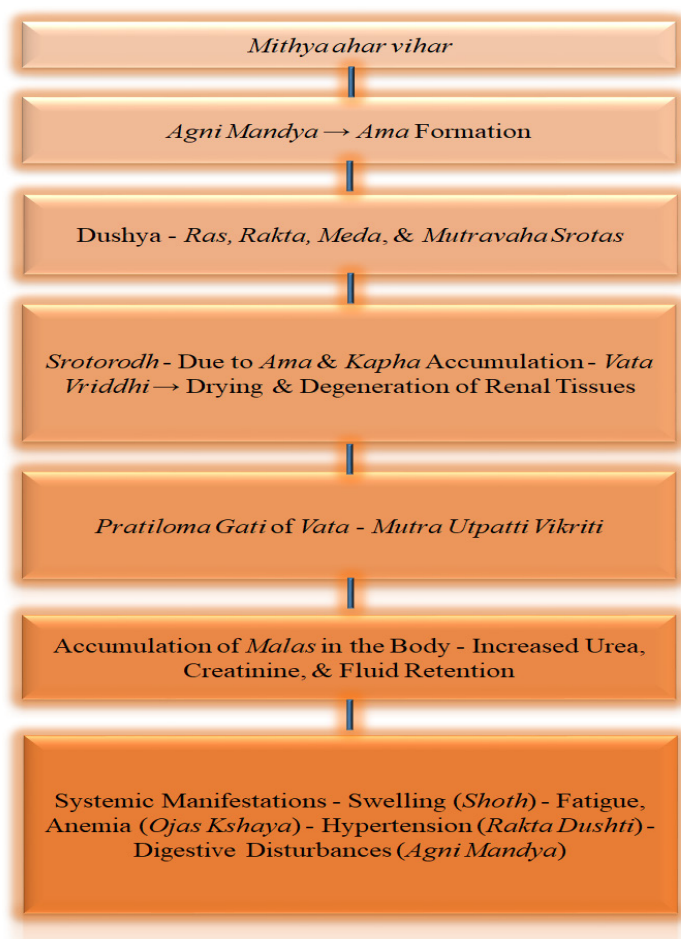




DISCUSSION

Integrating *Ayurvedic* interventions for the symptomatic relief of CKD shows a promising alternative for the conventionally practicing treatment methods. This case report is about the procedure of incorporating different *Ayurvedic* therapies in a 56-year-old male, diagnosed with CKD for 1 and a half years and hypertension for 5 years. The patient presented symptoms such as general weakness, itching, back ache, gastric issue and frothy urination. The *Samprapti*^[45] of this case study is depicted in Fig 4.

Fig 4 The *Samprapti* of this case study



1) The *Samprapti* and *Nidan Parivarjan*

CKD with hypertension can be understood in *Ayurveda* through the concepts of *Dosha-Dushya Sammurchana*. The primary *Nidana* (causative factors) include excessive intake of *Katu*, *Amla*, *Lavana Rasa*, *Guru*, *Abhishyandi Ahara*, suppression of natural urges, and chronic *Ajirna*. These factors vitiate *Vata* and *Kapha Dosha*, leading to *Rakta Dushti* and *Mutravaha Srotas Dushti*. Prolonged vitiation causes obstruction (*Sanga*) and degeneration (*Kshaya*) in *Mutravaha Srotas*, impairing kidney function. Hypertension further aggravates the pathology by increasing *Rakta Gati*

and damaging delicate *Sira-Srotas* of the kidneys. Over time, this dual pathology manifests as *Vrikk Vikar* with reduced filtration capacity (GFR), accumulation of metabolic toxins (*Ama* and *Mala Upasthiti*), and systemic complications like pedal oedema, weakness, and disturbed urine formation^[45]. The cornerstone of CKD management in *Ayurveda* is *Nidana Parivarjana*, which includes avoiding causative and aggravating factors. Patients are advised to refrain from high-salt, spicy, fermented, oily, and heavy-to-digest foods that aggravate *Kapha* and *Pitta* while following a kidney-friendly diet with easily digestible, light, and *Mutral Dravyas*^[46]. Lifestyle modifications include avoiding overexertion, suppression of natural urges, day sleep, and excessive stress, as these aggravate *Vata* and *Kapha*^[47]. Regular practice of mild yoga, pranayama, and meditation helps regulate *Rakta Gati* (blood pressure) and supports renal function^[48]. Timely correction of digestive impairment (*Agni Sandharana*), maintaining *Ahara-Niyama* (dietary discipline), and adopting a balanced daily routine (*Dinacharya*) and seasonal regimen (*Ritucharya*) form the basis of preventing disease progression. Thus, *Nidana Parivarjana* not only slows CKD progression but also helps in controlling hypertension naturally.

2) The effect of *Ahar-Vihar*

The *Ahar-Vihar* regimen followed by the patient, as per the Disciplined and Intelligent Person's (DIP) Diet Plan, played a crucial role in supporting renal health, improving metabolism, and stabilizing overall wellbeing. The dietary protocol emphasized the avoidance of aggravating foods such as wheat, refined products, dairy, packaged foods, coffee, and tea, thereby reducing the burden of *Ama* (toxins) and preventing *Kapha* and *Pitta* aggravation^[49]. Inclusion of millet varieties such as foxtail, barnyard, little, kodo, and browntop provided easily digestible, high-fiber, and low-glycemic nutrition, which supported kidney function and blood sugar control^[51]. Hydration with alkaline, herbal, turmeric-infused, and reduced water helped maintain electrolyte balance, prevented fluid overload, and enhanced *Mutravaha Srotas* cleansing^[52]. Timely meals, fasting, mindful chewing, gratitude practice, and *Vajrasana* after meals promoted digestive fire (*Agni*) and reduced metabolic stress. The diet's emphasis on steamed salads, seasonal fruits, fermented millet shakes, and juices provided antioxidants and essential micronutrients, which improved hemoglobin, reduced uremic load, and alleviated fatigue^[52]. Complementing the dietary regimen, *Vihar* (lifestyle modifications) such as daily yoga (*Sukhasana*, *Sukshma Pranayama*), barefoot brisk walking, meditation, and adherence to a structured routine helped regulate blood pressure, pulse, and body weight, while also improving mental calmness and sleep quality^[48,53,54]. Adequate rest, mindful movement, and controlled physical activity reduced *Vata* aggravation and strengthened cardiovascular

stability. Together, these *Ahar-Vihar* practices contributed to improved renal function, hemodynamic stability, and overall quality of life, showing *Ayurveda's* integrative potential in CKD management alongside conventional care.

3) The effect of *Panchakarma* therapies

The *Panchakarma* therapies administered to the patient provided multifaceted benefits in the management of CKD with hypertension by addressing *Dosha Dushti*, improving circulation, and enhancing renal function. *Awagaha Swedan* induced therapeutic sweating, helping in detoxification, relieving stiffness, and reducing fluid retention, while HDT (Head Down Tilt) therapy improved renal perfusion and supported hemodynamic balance [31]. *Matra Basti* with *Gokshura* and *Punarnava* oil, as well as alternate *Sneha* and *Kashaya Basti* with formulations like *Punarnava*, *Varuna*, and *Guduchi*, played a vital role in pacifying aggravated *Vata*, reducing edema, and facilitating removal of accumulated *Ama* through the colon, thereby improving urinary output and easing systemic toxin load [32,35,36,37,38]. *Abhyangam* with *Brahmi* and *Ksheerabala* oil nourished the tissues, improved joint flexibility, and calmed the nervous system [33,34], while *Shiropichu* with *Brahmi* oil provided mental relaxation, alleviated stress, and supported sleep regulation [39]. *Vrikk Basti* with *Varunadi* oil directly targeted the renal region, improving local circulation, reducing inflammation, and strengthening kidney function [40]. These therapies not only promoted detoxification and metabolic correction but also helped stabilize blood pressure, reduce pedal edema, improve urine quality, and enhance the patient's overall physical and mental wellbeing.

4) The effects of *Ayurvedic* medicines

The *Ayurvedic* formulations like *Chander Vati*, *GFR Powder*, *Renal Support Syrup*, *Blood Purifier Syrup*, *Divya Shakti Powder*, *Charma Rog Har Vati*, *FE Capsule*, *Dhatu Poshak Capsule*, *Sama Vati*, *Yakrit Shoth Har Vati*, *Hemotone Syrup*, *GE-Liv Forte Syrup*, *Vrikk Tonic*, and *Asthiposhak* are composed of herbs and minerals whose effects can be explained through their *Ras Panchaka* (*Rasa*, *Guna*, *Virya*, *Vipaka*, and *Prabhava*). Ingredients such as *Trikatu* (*Pippali*, *Marich*, *Saunth*), *Chitrak*, *Kalmegh*, *Kutki*, *Chiraita*, and *Daruharidra* possess *Katu-Tikta rasa*, *Laghu-Tikshna guna*, *Ushna virya*, and *Katu vipaka*, which make them potent *Deepana*, *Pachan*, and *Lekhana dravyas*, helping in *Ama pachana*, *Agni deepana*, and *Kapha-Vata shaman* [55-60]. Herbs like *Punarnava*, *Gokshura*, *Kaasni*, *Bhoomi Amla*, and *Varuna* are dominated by *Tikta-Kashaya rasa*, *Laghu-Ruksha guna*, *Sheeta virya*, and *Katu vipaka*, rendering them *Mutral*, *Shothahara*, and *Vrikkadoshahara*, beneficial in renal and urinary disorders [61-64]. *Rasayana dravyas* such as *Giloy*, *Amlaki*, *Haritaki*, *Ashwagandha*, *Shatavari*, and

Shilajit exhibit *Madhura rasa*, *Guru-Snigdha guna*, *Sheeta virya*, and *Madhura vipaka*, providing *Ojovardhana*, *Dhatu poshana*, and *Balya* effects [65-69]. Blood-purifying drugs like *Neem*, *Manjishtha*, and *Babchi* with *Tikta-Kashaya rasa*, *Laghu-Ruksha guna*, *Sheeta virya*, and *Katu vipaka* act as *Raktashodhaka*, *Kushtahara*, and *Pitta shamaka* [70,71,72]. Minerals like *Loh Bhasma*, *Mandur Bhasma*, *Yasad Bhasma*, *Swarn Makshik*, and *Mukta Shukti* are *Raktavardhaka*, *Ojovardhaka*, and *Dhatu poshaka* due to their unique *Prabhava*. Thus, through their combined *Ras Panchaka* properties, these formulations act as *Raktashodhaka*, *Mutral*, *Shothahara*, *Deepana-Pachana*, *Rasayana*, and *Tridosha shamaka*, supporting digestion, blood purification, kidney function, immunity, and overall rejuvenation [73].

Future Research perspectives:

This study focused on a CKD patient with hypertension, and while the results were promising, a more thorough evaluation is necessary, as the study involved only one patient. Additional research with a larger sample size and randomized controlled trials is needed to validate the reliability, efficacy and safety of the integrated *Ayurveda* therapies used in this study for CKD. This will support establish standardized protocols and guidelines for clinical practice.

CONCLUSION

This case study for the treatment of symptomatic relief in CKD through *Ayurvedic* interventions can be concluded as follows:

Symptoms: The patient showed marked improvement in multiple clinical conditions after treatment. Pedal oedema, initially graded as 4°, reduced to 1° post-treatment. Pain intensity decreased from 3/10 to complete relief (0/10). Sleep quality, which was previously poor at 3/10, improved significantly to 7/10. Additionally, itching, initially rated 6/10 [44], was completely resolved following the treatment.

Vitals: The patient's vital signs varied during the treatment period. Blood pressure stabilized at 120/80 during the inpatient care. The patient's weight dropped from 82 kg to 73 kg, there was a reduction in itching and pain, reflecting positive changes in lifestyle and diet.

Investigations: The patient's laboratory parameters show gradual improvement and stabilization over the course of follow-up. Haemoglobin levels fluctuated between 7.1 and 9.3 gm/dL. Urea levels decreased progressively from 200.85 mg/dL to 66.5 mg/dL, and creatinine improved from 7.25 mg/dL to 5.61 mg/dL. Uric acid levels reduced from 9.87 mg/dL to 6.87 mg/dL.

In conclusion, the integration of holistic *Ayurvedic* therapies alongside previously prescribed necessary allopathic treatments for CKD has shown promising results, including improvements in symptoms, vital signs and laboratory test outcomes. The combination of *Ayurvedic* interventions with prescribed medications appears to support better kidney function, reduce symptoms associated with CKD, contribute to the overall health and well-being of the patient. *Ayurvedic* therapies, through their focus on restoring balance and addressing underlying body imbalances, may play a crucial role in improving renal health.

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Fig 1 Laboratory investigation reports during the treatment

Fig 1a. Before treatment

WELLCARE CLINICAL LAB
 18, Pind Devinagar, Chandigarh - Delhi Highway Back Side of Jugraj Dhaba, Tehsil-Derabassi, Punjab-140507, Contact No.: +91 98729 96010
 Email : wellcareclinicallabd5573@gmail.com

LABORATORY REPORT

Patient Name : [REDACTED]
 Age / Gender : 55 years / Male
 Patient ID : UHID - 14852024
 Source : WELLCARE CLINICAL LAB

Scan to Validate

Referral : Dr. HIIMS HOSPITAL CHANDIGARH
 Collection Time : MAR 05, 2024, 09:10 A.M.
 Receiving Time : MAR 05, 2024, 09:10 A.M.
 Reporting Time : MAR 05, 2024, 10:17 A.M.
 Sample ID : 200355

Test Description	Value(s)	Reference Range	
Complete Blood Count (CBC)			
Hemoglobin (HB)	8.5	13.0 - 17.0	g/dL
Total Leucocytes Count (TLC)	6700	4000 - 11000	/cmm
DIFFERENTIAL COUNT			
Neutrophils	78	40 - 75	%
Lymphocytes	17	20 - 45	%
Monocytes	03	2 - 10	%
Eosinophils	02	1 - 5	%
Basophils	00	0 - 1	%
Total RBC Count	2.84	3.50 - 6.50	Mill/Cumm
Platelet Count	2.10	1.50 - 4.50	Lacs/Cumm
PCV/HCT	24.1	35.0 - 47.0	%
Red cell distribution width (RDW)	13.4	13.0 - 18.0	%
Mean corpuscular volume (MCV)	85.0	75.0 - 96.0	fL
Mean Corpuscular Hemoglobin (MCH)	29.9	27.0 - 32.0	pg
Mean Corpuscular Hemoglobin Concentration (MCHC)	35.2	30.0 - 35.0	%
Microscopy, Fully Automated Hematology Analyser alfa swelab double chamber 3 Part			
RENAL FUNCTION TEST (RFT)			
Blood Urea	200.85	15.0 - 46.0	mg/dl
Serum Creatinine	7.25	0.70 - 1.60	mg/dL
Serum Uric Acid	9.87	3.0 - 7.2	mg/dL
Liver Function Test (LFT)			
Total Bilirubin	0.55	0.20 - 1.00	mg/dL
Direct Bilirubin	0.21	0.00 - 0.60	mg/dL
Indirect Bilirubin	0.34	0.00 - 0.80	mg/dL
AST (SGOT)	22.12	15.0 - 50.0	IU/L
ALT (SGPT)	24.28	15.0 - 50.0	IU/L
Alkaline Phosphatase (ALP)	81.37	0.00 - 150.0	U/L
Total Protein	6.98	6.4 - 8.2	g/dL

CONDITIONS OF LABORATORY TESTING & REPORTING
 The reporting result are for the information and for interpretation of the referring doctor only. * If the result of the test (s) are alarming or unexpected, the patient is advised to contact the laboratory immediately for possible remedial advice. * This report is not valid for medico-legal purposes. * Wellcare Clinical Lab not its employees assume any liability to for any loss or damage that may be incurred by any person as a result of presuming the meaning or contents of the report. * It is Presumed that the tests performed on the specimen belong to the patient; names or identified. * Results of tests may vary from laboratory to laboratory and also in some parameter from time to time for the same patient. Only such medical professional who understand reporting units, reference ranges and limitations or technologies should interpret result. * Reports valid until stamped by labs authorized signatory.

NOT VALID FOR MEDICO LEGAL PURPOSE | EMERGENCY 24 HOURS | TIMINGS : 8.00 AM TO 8.00 PM Page 1 of 5

Fig 1b. After treatment



Accuprobe Diagnostics




LAB REPORT

Customer Care Number
9599593622
9599593625

Accuracy Matters...

Barcode No: **85956709**

Patient Name: [REDACTED]

Age/Sex: **56 YRS/Male**

Referred By: **SELF**

Client Code/Name: **AP021118 HEALTH CLUB & LABORATORY**

Ref. Lab/Hosp: [REDACTED]

Panel Address: **SCF-85,Phase-5,SAS NAGAR Mohali-14005**

Lab No: **01932406090005**

Reg Date: **09/Jun/2024 11:34AM**

Sample Coll. Date: **09/Jun/2024 10:38 AM**

Sample Rec. Date: **09/Jun/2024 01:36 PM**

Report Date: **09/Jun/2024 03:21 PM**



Test Name With Methodology	Result	Unit	Biological Ref.Interval
.IMMUNO BIOCHEMISTRY-1			
Kidney Profile Mini			
Blood Urea <small>Serum, Ureaase, GEDH</small>	66.5	mg/dL	21-40.0
Serum Creatinine <small>Serum, Creat</small>	5.61	mg/dL	0.7-1.2
Uric Acid <small>Enzymatic colorimetry</small>	6.87	mg/dL	3.4 - 7.0
Calcium <small>Serum, NM-BAPFA</small>	6.30	mg/dL	8.6-10.0
BUN (Blood Urea Nitrogen) <small>Serum, Urea Nit</small>	31	mg/dL	6.0-20.0
BUN/Creatinine Ratio <small>Calculated</small>	5.53	Ratio	10-20
eGFR <small>Calculated</small>	11.2	mL/min/1.73 m2	>90

The National Kidney Foundation recommends using the Estimated GFR using MDRD Creatinine Equation (2021) to estimate GFR. (<http://surl.li/lwaub>)

Kindly correlate clinically. Advise for recheck from fresh sample in case, it is not correlation clinically, to rule out any pre-analytical error.

Dr. Vidhu Wadhwa

Dr. Vidhu Wadhwa, MD
(Consultant Pathologist)

Processed at: A.D. Regional Lab, Sector-54 Mohali, Punjab



Dr Prashant Goyal
(Chief Pathologist)

Page 3 of 6

Accuprobe Healthcare & Diagnostics Pvt. Ltd.
Corporate Office & Reference Lab:
B-14/2, Jhilmil Industrial Area, Delhi-110095
E: info@accuprobe.in | W: www.accuprobe.in
Customer Care Number : 9599593622, 9599593625

Fig 4. The DTPA scan report

9w-4

INDIAN INSTITUTE OF NUCLEAR MEDICINE & SCANNING
(A Unit of Indian Institute Of Nuclear Medicine & Scanning, Sector 69, Mohali)

NOT FOR MEDICO LEGAL PURPOSES

Dr. AWADHESH PANDEY
Chief Consultant & Head
Ex. - Faculty N.I.M.S. Hyderabad.

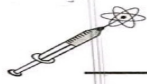
NAM: [REDACTED] **AGE:** 55Y **SEX:** M **DATE:** 05/03/2024
REG. NO. REN-190-24 **UHD: 14852024**
ATTENDING HOSPITAL - HIIMS HOSPITAL (DERA-BASSI)
CLINICAL STATUS: To Know FUNCTIONALINAGE PATTERN, SPLIT FUNCTION & GFR

PROVOCATIVE DYNAMIC RENAL SCINTIGRAPHY

	LEFT KIDNEY	RIGHT KIDNEY
ISOTOPE: 99mTc-DTPA		DOSE: 5mCi
PERFUSION PHASE		
VISUALISATION	poor	poor
RELATIVE PERFUSION	poor	poor
UPTAKE PHASE		
SIZE	shrunk	shrunk
SHAPE	normal	normal
POSITION	normal	normal
CONCENTRATION	poor	poor
CORTICAL MARGIN DELINEATION	poorly - defined	poorly -defined
SPLIT FUNCTION.	52.0%	48.0%
EXCRETORY PHASE		
COLLECTING SYSTEM	normal	normal
DRAINAGE PATTERN	normal	normal
DIURETIC RESPONSE	normal	normal
URETER	normal	normal
GFR	4.4ml/min	4.1ml/min

CONT ON PG 2

BASEMENT HIIMS HOSPITAL, DEVI NAGAR, DELHI HIGHWAY CHANDIGARH, DERA BASSI.
MOBILE : 99888 62091



INDIAN INSTITUTE OF NUCLEAR MEDICINE & SCANNING

(A Unit of Indian Institute Of Nuclear Medicine & Scanning, Sector 69, Mohali)

NOT FOR MEDICO LEGAL PURPOSES

Dr. AWADHESH PANDEY

Chief Consultant & Head
Ex. - Faculty N.I.M.S. Hyderabad.

Page 2

IMPRESSION :- 99m Tc DTPA RENOGGRAM REVEALS:

LEFT KIDNEY i) SHRUNK IN SIZE
ii) SEVERELY COMPROMISED CORTICAL FUNCTION.
iii) THERE IS NORMAL DRAINAGE SEEN.

RIGHT KIDNEY i) SHRUNK IN SIZE
ii) SEVERELY COMPROMISED CORTICAL FUNCTION
iii) THERE IS NORMAL DRAINAGE SEEN.

- GLOBAL GFR=8.5ml/min/ 1.96sq m BSA
(Normal range for BSA 75.0ml/min \pm 17ml/min)

-SPLIT FUNCTION: LEFT KIDNEY=52.0%
RIGHT KIDNEY=48.0%

- REPEAT DTPA SCAN AFTER 3 MONTHS (05/06/2024) TO SEE PROGRESSION OR REGRESSION.

Awadhesh Pandey
Dr. AWADHESH PANDEY
Sr. CONSULTANT & HEAD

BASEMENT HIIMS HOSPITAL, DEVI NAGAR, DELHI HIGHWAY CHANDIGARH, DERA BASSI.
MOBILE : 99888 62091

[Redacted] 55Y/M ID: REN-190-24 SEX: M
STUDY: Renal Scan STUDY DATE: 05/03/2024

