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RESEARCH ARTICLE

CASE STUDY ON INTEGRATING CONVENTIONAL TREATMENT WITH AYURVEDIC THERAPIES FOR CHRONIC KIDNEY DISEASE, HYPERTENSION, DIABETES, AND CARDIOVASCULAR HEALTH

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Abstract

Chronic kidney disease (CKD) is a progressive condition characterized by a decline in kidney function, often linked to comorbidities like hypertension, diabetes, and coronary artery disease (CAD). This case study evaluates the integration of Ayurvedic interventions with conventional treatments for a 65-year-old male patient with CKD, Hypertension, Type 2 Diabetes Mellitus (T2DM), and CAD. The patient underwent a 22-day inpatient treatment at Jeena Sikho Lifecare Hospital, incorporating Panchakarma therapies (Awagaha Swedan, Shiropichu, Matra Basti, Vrikka Basti, and Kashaya Basti) alongside Ayurvedic formulations. Significant clinical improvements were observed, including reductions in pedal edema, frothy urine, constipation, and enhanced kidney function, as indicated by decreased Blood urea, Serum creatinine, and Uric acid levels. This case demonstrates the potential benefits of combining Ayurvedic treatments with conventional care, suggesting a promising holistic approach to CKD management. However, further clinical trials are necessary to confirm these findings and establish standardized protocols for Ayurvedic interventions in CKD treatment.

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Introduction:-

Chronic kidney disease (CKD) is characterized by a continuous decline in kidney function, diagnosed by a glomerular filtration rate (GFR) of less than 60 mL/min per 1.73 m² or kidney damage lasting at least three months^[1]. End-stage kidney disease (ESKD) requires replacement therapy when kidney function can no longer sustain life

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^[1]. CKD often remains asymptomatic but can cause hypertension, fluid retention, bone pain, and peripheral neuropathy as it progresses ^[2,3]. Obesity, hypertension, and diabetes are key risk factors for CKD advancement, and CKD patients face higher cardiovascular mortality than dialysis patients ^[4]. Anemia worsens as CKD progresses, especially in diabetes ^[5]. Diabetes, the most prevalent cause of kidney disease globally, is often linked to hypertension ^[6]. Obesity increases CKD risk, as it can lead to diabetes ^[7]. CKD is also associated with hereditary factors like polycystic kidneys ^[8]. Ayurveda links CKD to disruptions in the Srotas and Doshas, with anemia resembling Vataj Pandu^[9]. Ayurvedic treatments, gaining attention for their holistic approach, aim to balance body, mind, and spirit, slowing CKD progression, reducing symptoms, and improving quality of life. Detoxification practices like Panchakarma and herbs such as Punarnava and Ashwagandha offer diuretic, anti-inflammatory benefits, supporting kidney function ^[10-16]. Ayurveda, particularly Panchakarma therapy, has shown promise in managing Coronary Artery Disease (CAD) by addressing metabolic disorders and improving overall health. Panchakarma therapy involves detoxification, restoring balance, and improving quality of life. It is often combined with a low-calorie, high-protein diet, which has been linked to reduced mortality rates and improved risk factors^[17,18]. Ayurvedic treatments are holistic, tailored to individual needs, and use medicinal preparations with modern medical practices to address complex health issues more effectively. This study aims to assess the impact of Ayurvedic interventions combined with conventional treatments for CKD with hypertension, T2DM and CAD in a 65-year-old male patient.

Case Report:-

On November 20, 2024, a 65-year-old male with known case of CKD along with a history of Hypertension, Type 2 diabetes mellitus and Coronary artery disease (CAD) visited Jeena Sikho Lifecare Limited Hospital in Derabassi, Punjab. He was admitted for 22 days. A comprehensive medical history, family history, physical examination, and diagnostic evaluations were all part of the methodical and thorough examination. He has a history of HTN for 12 years, T2DM for 12 years and heart issues since 23 years. He experienced pitting pedal oedema, constipation, loss of appetite, low urine output, frothy urine and SOB on exertion. The vital signs along with Ashtsthana pareeksha examination report during the first day of visit is detailed in

Table 1.

Table 1 Vitals during the initial examination on first day of the visit

Parameter	Findings
Temperature	97°F
Blood Pressure	120/80 mm of Hg
Pulse Rate	66/min
Weight	68 Kg
Nadi	Vataj Pittaj
Mutra	Phenila Mutra
Shabda	Madhyama
Mala	Vibandh

The patient was on IPD for 7 days, during that period he received consolidated Ayurvedic treatments. This treatment procedure encompassed Panchakarma therapies such as Matra Basti with Arjuna oil and Punarnava oil, Kashaya Basti with Gokshuradi and Punarnavadi, Awagahaswedan, Shiropichu with Brahmi oil and Vrikka Basti with Arjuna oil. The lipid profile during November 22, 2024 is mentioned in Table 2. The liver and protein tests during November 22, 2024 and December 01, 2024 is mentioned in Table 3. The medicine administration during the IPD is mentioned in Table 4. The detailed description of the medicines provided during the IPD is in Table 5. The allopathic medications administered during the IPD is mentioned in Table 6. After 22 days of treatment, the patient experienced significant improvement, including relief from constipation, loss of appetite, frothy urine and pedal oedema.

Table 2Lipid Profile Investigation on November 22, 2024

Parameter	Findings
Date	22-11-2024
Total Cholesterol	120.85 mg/dL
HDL	35.96 mg/dL
LDL	40.77 mg/dL
VLDL	44.12 mg/dL
Triglycerides	220.62 mg/dL
CHOL/HDL	3.36

Table 3Liver and protein tests during November 22, 2024 and December 01, 2024

Parameter	Findings	
Date	22-11-2024	01-12-2024
Total Bilirubin	2.52 mg/dL	2.28 mg/dL
Direct Bilirubin	1.48 mg/dL	0.96 mg/dL
Indirect Bilirubin	1.04 mg/dL	1.32 mg/dL
SGOT	131.39 IU/L	73.39 IU/L
SGPT	72.84 IU/L	98.87 IU/L
ALP	120.48 U/L	107.61 U/L
Total protein	6 g/dL	5.93 g/dL
Albumin	3.14 g/dL	3.38 g/dL
Globulin	2.86 g/dL	2.55 g/dL
Albumin/Globulin	1.1	1.33

Table 4

The medicine administration during the I

Medicine name	Dosage	22.11.24	23.11.24	24.11.24	25.11.24	26.11.24	27.11.24	28.11.24	29.11.24	30.11.24	1.12.24	2.12.24	3.12.24	4.12.24	5.12.24	6.12.24	7.12.24	8.12.24	9.12.24	10.12.24	11.12.24
Hrid Care	1 CAP TDS (Adhobhakta with Koshna jala)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prameh Rog Har	Half a teaspoon BD (Adhobhakta with Koshna jala)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mutavardhak vati	1 TAB BD (Adhobhakta with Koshna jala)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DM Capsule	2 CAP TDS (Adhobhakta with Koshna jala)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dr. CKD	1 TAB BD (Adhobhakta with Koshna jala)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GFR Powder	Half a teaspoon BD (Adhobhakta with Koshna jala)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rakt Stambhan	1 TAB TDS (Adhobhakta with Koshna jala)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Yakrit Sanjesevani	Half a teaspoon BD (Adhobhakta with Koshna jala)	✖	✖	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Udar vikar powder	15 ml BD (Adhobhakta with Koshna jala)	✖	✖	✖	✖	✖	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kidney Shuddhi Ark	15 ml BD (Adhobhakta with Koshna jala)	✖	✖	✖	✖	✖	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cardiovascular Support Syrup	15 ml BD (Adhobhakta with Koshna jala)	✖	✖	✖	✖	✖	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Jalodharhar Vati	1 TAB BD (Adhobhakta with Koshna jala)	✖	✖	✖	✖	✖	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Castor Oil	10 ml HS Nishakala with Koshna jala)	✓	✖	✓	✖	✖	✖	✓	✖	✖	✖	✓	✖	✖	✓	✖	✖	✖	✓	✖	✖

Table 5 The medicines provided during the IPD

Medicine name	Ingredients	Dosage	Therapeutic Effects
Hrid Care	Lahshun BI. Ext. (<i>Allium sativum</i>), Arjun Bk. Ext. (<i>Terminalia arjuna</i>), Brahmi Lf. Ext. (<i>Bacopa monnieri</i>), Giloy St. Ext. (<i>Tinospora cordifolia</i>), Makoy Fr. Ext. (<i>Solanum nigrum</i>), Sarpagandha Sd. Ext. (<i>Rauvolfia serpentina</i>), Shankh Bhasam (<i>Turbinella pyrum</i>).	1 CAP TDS (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Used for CAD, HTN, acidity, insomnia, high blood pressure and arotic disease
Prameh Rog Har	Kutki (<i>Picrorhiza kurroa</i>), Chiraita (<i>Swertia chirata</i>), Neem (<i>Azadirachta indica</i>), Karela (<i>Momordica charantia</i>), Rasonth (<i>Berberis aristata</i>), Imli Beej (<i>Tamarindus indica</i>), Kala Namak, Giloy (<i>Tinospora cordifolia</i>), Sonth (<i>Zingiber officinale</i>), Babool Chaal (<i>Vachellia nilotica</i>), Sarpagandha (<i>Rauvolfia serpentina</i>), Trivang Bhasam, Yashad Bhasam, Revend Chinni (<i>Rheum emodi</i>), Sodhit Guggulu (<i>Commiphora mukul</i>), Methi (<i>Trigonella foenum-graecum</i>), Jamun (<i>Syzygium cumini</i>), Babool Fruit (<i>Vachellia nilotica</i>), Karanj (<i>Milletia pinnata</i>), Shilajit, Haldi (<i>Curcuma longa</i>), Harad (<i>Terminalia chebula</i>), Inderjaun (<i>Holarrhena antidysenterica</i>), Banshlochan (<i>Bambusa arundinacea</i>), Bahera (<i>Terminalia bellirica</i>), Amla (<i>Phyllanthus emblica</i>), White Musli (<i>Chlorophytum borivilianum</i>), Gurmar (<i>Gymnema sylvestre</i>).	Half a teaspoon BD (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Helps in lowering blood sugar levels, Lowers Blood Pressure, Reduces sugar cravings, Beneficial in relieving constipation, headache, acidity etc, Rich source of antioxidants, vitamins & minerals
Mutavardhak vati	Gokshura (<i>Tribulus terrestris</i>), Guggul (<i>Commiphora wightii</i>), Sonth (<i>Zingiber officinale</i>), Kalimirsch (<i>Piper nigrum</i>), Pippal (<i>Piper longum</i>), Bahera (<i>Terminalia bellerica</i>), Haritaki (<i>Terminalia chebula</i>), Amla (<i>Phyllanthus emblica</i>), Motha (<i>Cyperus rotundus</i>).	1 TAB BD (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Used for treating kidney stones, dysuria, painful micturition, high blood pressure, and inflammatory conditions, while also providing relief in osteoarthritis (O.A.), hyperuricemia, and exhibiting antithesis properties.
DM Capsule	Amba Haldi (<i>Curcuma Amada</i>), Giloy (<i>Tinospora cordifolia</i>), Safed Musli (<i>Chlorophytum borivilianum</i>), Methi (<i>Trigonella foenum-graecum</i>), Neem (<i>Azadirachta indica</i>), Karela (<i>Momordica charantia</i>), Jamun (<i>Syzygium cumini</i>), Bilva Patra (<i>Aegle marmelos</i>), Gudmar (<i>Gymnema sylvestre</i>), Shudh Shilajeet	2 CAP TDS (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Helps to stimulate insulin production, Beneficial for managing blood glucose levels and increases metabolism and energy levels
CKD Shuddhi	Pashanbhed (<i>Bergenia ciliata</i>), Varun (<i>Crataeva nurvala</i>), Punarnava (<i>Boerhavia diffusa</i>), Gokhru (<i>Tribulus terrestris</i>), Apamarg (<i>Achyranthes aspera</i>), Haldi (<i>Curcuma longa</i>), Charila (<i>Embelia ribes</i>), Kulthi (<i>Dolichos biflorus</i>), Haritaki (<i>Terminalia chebula</i>), Bhumiawla (<i>Pyrrosia piloselloides</i>), Giloy (<i>Tinospora cordifolia</i>), Shitalchini (<i>Vernonia cinerea</i>), Anantmool (<i>Hemidesmus indicus</i>), Khas (<i>Vetiveria zizanoides</i>), Yab Kshar, Muli Kshar (<i>Raphanus sativus</i>), Kalmi Shora, Sajji Kshar, Shilajit, Hajral Yahud, Shwet Parpati.	1 TAB BD (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Used for treating kidney disease, urinary tract infections (UTI), burning micturition, and supporting liver health.
GFR Powder	Bhoomi Amla (<i>Phyllanthus niruri</i>), Badi Harad (<i>Terminalia chebula</i>), Bahera (<i>Terminalia bellirica</i>), Kasni (<i>Cichorium intybus</i>), Makay (<i>Zea mays</i>), Punarnava (<i>Boerhavia diffusa</i>), Gokshur (<i>Tribulus terrestris</i>)	Half a teaspoon BD (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Supports kidney function and reduces inflammation, helping with renal symptoms.
Yakrit Sanjeevani	Kutki (<i>Picrorhiza kurroa</i>), Bhumi Amla (<i>Barleria prionitis</i>), Kalmegh (<i>Andrographis paniculata</i>), Sarpankha (<i>Rhazya stricta</i>), Bhringraj (<i>Eclipta prostrata</i>), Giloy (<i>Tinospora cordifolia</i>), Makoy (<i>Solanum nigrum</i>), Punarnava (<i>Boerhavia diffusa</i>), Pitt Papda (<i>Fumaria indica</i>), Nagarmotha (<i>Cyperus scariosus</i>), Harar (<i>Terminalia chebula</i>), Bahera (<i>Terminalia bellerica</i>), Amlaki (<i>Phyllanthus emblica</i>), Black Pepper (<i>Piper nigrum</i>), Long Pepper (<i>Piper longum</i>), Ginger (<i>Zingiber officinale</i>).	Half a teaspoon BD (<i>Adhobhakta</i> with <i>Koshna jala</i>)	For Liver Detox, Fatty Liver, Hepatitis and Indigestion
Udar vikar powder	Hing (<i>Ferula asafoetida</i>), Ajwain (<i>Trachyspermum ammi</i>), Jeera (<i>Cuminum cyminum</i>), Saunf (<i>Foeniculum vulgare</i>), Dhania (<i>Coriandrum sativum</i>), Amla (<i>Phyllanthus emblica</i>), Bala (<i>Sida cordifolia</i>), Pippali (<i>Piper longum</i>), Chitrak (<i>Plumbago zeylanica</i>), Shunthi (<i>Zingiber officinale</i>), Triphala (<i>Phyllanthus emblica</i> , <i>Terminalia chebula</i> , <i>Terminalia bellirica</i>).		Helps in stimulating the digestive system, alleviating gas, promoting appetite, and improving bowel movements

Rakt Stambhan	Sudh Parad, Sudh Gandhak, Giloy (<i>Tinosporacordifolia</i>), Heeradokhi, Semal (<i>Bombax ceiba</i>).	1 TAB TDS (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Used to manage hemorrhoids, hematuria, abscess, hemoptysis and menorrhagia
Kidney Shuddhi Ark	Punarnava (<i>Boerhavia diffusa</i>), Varuna (<i>Crataeva nurvala</i>), Gokshura (<i>Tribulus terrestris</i>), Bhumyamalaki (<i>Phyllanthus niruri</i>), Palash Pushp (<i>Butea monosperma</i>) and Shigru (<i>Moringa oleifera</i>)	15 ml BD (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Kidney detoxification, Maintain urinary tract health and Support for kidney stones
Cardiovascular Support Syrup	Nimba (<i>Azadirachta indica</i>), Arjuna (<i>Terminalia arjuna</i>), Bilwa (<i>Aegle marmelos</i>), Jambu (<i>Syzygium cumini</i>), Bibitek (<i>Terminalia bellirica</i>), Brahmi (<i>Bacopa monnieri</i>), Amalaki (<i>Phyllanthus emblica</i>), Gokshura (<i>Tribulus terrestris</i>), Hareetaki (<i>Terminalia chebula</i>), Ashwagandha (<i>Withania somnifera</i>), Karanja (<i>Pongamia pinnata</i>), Chirayata (<i>Swertia chirayita</i>).	15 ml BD (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Used for cardiac disease, reduce stress, anxiety, preventing artery blockage, maintaining BP and maintain healthy cholesterol
Jalodharhar Vati	Punarnava (<i>Boerhavia diffusa</i>), Gokshura (<i>Tribulus terrestris</i>), Mustaka (<i>Cyperus rotundus</i>), Shallaki (<i>Boswellia serrata</i>), Vacha (<i>Acorus calamus</i>), Guduchi (<i>Tinospora cordifolia</i>), Bala (<i>Sida cordifolia</i>), Triphala (<i>Phyllanthus emblica</i> , <i>Terminalia chebula</i> , <i>Terminalia bellirica</i>), Shankh Bhasma (<i>Turbinella pyrum</i>), Amla (<i>Phyllanthus emblica</i>).	1 TAB BD (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Reduce water retention, support kidney and liver function, and help with detoxification
Castor Oil	Castor	10 ml HS (<i>Nishikala</i> with <i>Koshna jala</i>)	Detoxification

Table 6. Allopathic medications administered during IPD

Medicine	Dosage	Therapeutic Effects	21 November 2024	22 November 2024	23 November 2024	24 November 2024	25 November 2024
Aspirin (75mg) + Atorvastatin (20mg) + Clopidogrel (75mg)	1 TAB HS	Prevention of heart attack	✓	✓	✓	✓	✓
Taurine (500mg) + Acetylcysteine (150mg)	1 TAB BD	Treatment of chronic kidney disease	✓	✓	✗	✗	✗
Acenocoumarol (1mg)	1 TAB HS	Anticoagulant that helps prevent harmful blood clots	✓	✓	✗	✗	✗
Etizolam (0.25mg)	1 TAB HS	Treat short-term anxiety and insomnia	SOS	SOS	SOS	SOS	SOS
Bisoprolol (5mg)	1 TAB BBF	Beta-blockers	✓	✓	✗	✗	✗
Torsemide (20mg)	1 TAB BBF BD	Diuretics	✓	✓	✗	✗	✗
Dapagliflozin (10mg) + Sitagliptin (100mg)	1 TAB before lunch	Helps control blood sugar levels	✓	✓	✗	✗	✗
Ivabradine (5mg)	1 TAB BD	Treatment of angina and chronic heart failure	✓	✓	✗	✗	✗

During the IPD, the pedal oedema reduced after November 24, 2024 and the bowel was cleared after November 27, 2024. The diabetes chart during the IPD is mentioned in Table 7. The therapy and vitals after therapy is depicted in Table 8. The daily vitals during the IPD is in Table 9. The laboratory investigations during the treatment period is mentioned in Table 10. The patient was discharged on December 11, 2024. The vitals during the discharge is mentioned in Table 11. The medications during discharge is detailed in Table 12.

Table 7The diabetes chart during the IPD

Date	Time	Weight in Kg	Temperature in F	Blood Pressure (mmHg)	Pulse/min	Pain score	Therapy
21-Nov-24	6:00 PM	68 Kg	97° F	135/85	65	0/10	Shiropichu, Matra Basti
22-Nov-24	6:00 PM	68 Kg	98 ° F	134/85	64	0/10	Shiropichu, Matra Basti, Hridya Basti
23-Nov-24	6:00 PM	68 Kg	98 ° F	125/84	65	0/10	Abhyanga, Nadi swedan, Hridaya Basti, Kashaya Basti
24-Nov-24	6:00 PM	69 Kg	98 ° F	123/83	73	0/10	Hridaya Basti, Shiropichu, Matra Basti
25-Nov-24	6:00 PM	68 Kg	98 ° F	133/83	73	0/10	Hridaya Basti, Abhyangam, Kashaya Basti, Nadi swedan
26-Nov-24	11:30 AM	68 Kg	98 ° F	123/82	78	0/10	Hridaya Basti, Shiropichu, Matra Basti
27-Nov-24	11:00 AM	68 Kg	98 ° F	133/83	73	0/10	Hridaya Basti, Abhyangam, Matra Basti, Nadi swedan
28-Nov-24	11:00 AM	65 Kg	98 ° F	124/82	83	0/10	Hridaya Basti, Shiropichu, Matra Basti
29-Nov-24	8:00 AM	63 Kg	98 ° F	131/88	101	0/10	Hridaya Basti, Abhyangam, Kashaya Basti, Nadi swedan
30-Nov-24	10:00 AM	68 Kg	98 ° F	131/85	90	0/10	Hridaya Basti, Shiropichu, Matra Basti
01-Dec-24	10:00 AM	68 Kg	98 ° F	134/83	87	0/10	Abhyanga, Nadi swedan, Hridaya Basti
02-Dec-24	10:00 AM	68 Kg	98 ° F	123/88	92	0/10	Hridaya Basti, Shiropichu, Matra Basti
03-Dec-24	10:00 AM	68 Kg	98 ° F	135/80	95	0/10	Abhyanga, Matra Basti, Hridaya Basti
04-Dec-24	10:00 AM	68 Kg	98 ° F	133/86	108	0/10	Hridaya Basti, Shiropichu, Matra Basti
05-Dec-24	10:00 AM	68 Kg	98 ° F	126/87	101	0/10	Abhyanga, Kashaya Basti, Hridaya Basti
06-Dec-24	10:00 AM	68 Kg	98 ° F	127/81	112	0/10	Hridaya Basti, Shiropichu, Matra Basti
07-Dec-24	10:00 AM	68 Kg	98 ° F	127/95	108	0/10	Abhyanga, Kashaya Basti, Hridaya Basti
08-Dec-24	10:00 AM	68 Kg	98 ° F	132/91	121	0/10	Hridaya Basti, Shiropichu, Matra Basti
09-Dec-24	10:00 AM	67 Kg	98 ° F	120/65	75	0/10	Abhyanga, Kashaya Basti, Hridaya Basti
10-Dec-24	10:00 AM	67 Kg	98 ° F	116/79	108	0/10	Shiropichu, Matra Basti
11-Dec-24	11:00 AM	67 Kg	98 ° F	132/95	126	0/10	Abhyanga, Kashaya Basti, Hridaya Basti

Table 8 The therapy and vitals after therapy

Date	Time	Weight in Kg	Temperature in F	Blood Pressure (mmHg)	Pulse/min	Respiration/min	SpO2
20-Nov-24	8:00 PM	-	98.2° F	120/80	62	20	99%
21-Nov-24	5:20 AM	-	98.2° F	110/70	68	20	99%
	9:30 AM	-	98.4° F	120/80	66	18	98%
	8:25 PM	68 Kg	97.8° F	120/80	70	20	98%
22-Nov-24	5:30 AM	-	98.2° F	120/80	74	18	99%
	9:40 AM	-	97.6° F	110/70	60	18	98%
	8:00 PM	-	98.2° F	110/80	84	20	98%
23-Nov-24	5:30 AM	-	98.2° F	120/80	78	18	99%
	9:40 AM	68 Kg	98.2° F	120/70	66	18	98%
	8:40 PM	-	98.2° F	110/80	80	20	98%
24-Nov-24	5:40 AM	-	97.8° F	110/80	84	18	99%
	9:45 AM	-	98.4° F	120/80	68	18	98%
	8:15 PM	-	97.8° F	100/70	70	20	99%
25-Nov-24	5:20 AM	-	98.2° F	100/70	72	20	99%
	9:40 AM	-	98.4° F	130/90	78	18	98%
	8:30 PM	-	98.2° F	120/80	74	20	99%
26-Nov-24	5:20 AM	-	97.8° F	110/80	78	20	98%
	8:40 AM	68.4 Kg	97.1° F	120/90	72	18	98%
	8:00 PM	-	98.2° F	120/80	82	20	99%
27-Nov-24	5:20 AM	-	97.8° F	120/80	84	18	99%
	9:20 AM	-	98.2° F	110/70	78	20	98%
	9:10 PM	-	97.8° F	120/80	72	18	99%
28-Nov-24	5:00 AM	-	98° F	120/80	84	19	99%
	9:10 AM	-	98.2° F	110/70	72	20	99%
	8:40 PM	65.400 Kg	97.8° F	120/80	78	18	99%
29-Nov-24	5:00 AM	-	97.8° F	110/70	68	19	99%
	9:55 AM	63.4 Kg	97.3° F	130/90	88	18	99%
	8:50 PM	63.4 Kg	97.8° F	120/80	90	18	99%
30-Nov-24	5:00 AM	-	97.8° F	120/80	90	18	99%
	1:00 PM	-	97.4° F	140/90	94	18	99%
	9:10 PM	64.4 Kg	97.8° F	120/70	94	18	99%
01-Dec-24	5:00 AM	-	97.8° F	120/80	84	19	99%
	1:00 PM	-	98.2° F	120/80	100	18	98%
	8:40 PM	63 Kg	97.8° F	130/80	88	20	99%
02-Dec-24	5:00 AM	-	97.4° F	130/80	84	19	99%
	8:00 PM	-	98	130/90	92	20	99%
03-Dec-24	5:00 AM	-	97.4° F	130/80	80	18	98%
	8:00 PM	-	98	130/80	92	20	98%
04-Dec-24	5:00 AM	-	98° F	130/80	86	18	99%
	9:10 AM	62.240 Kg	98.2° F	130/80	110	20	99%
	8:00 PM	-	98° F	130/80	70	18	98%
05-Dec-24	5:00 AM	-	97.2° F	140/80	100	20	99%
	9:40 AM	-	98.2° F	130/80	70	18	98%
	9:00 PM	-	98° F	130/80	68	20	99%
06-Dec-24	5:00 AM	62 Kg	98° F	130/80	80	18	98%
	9:00 AM	-	98° F	140/80	88	18	99%
	9:00 PM	-	98° F	130/80	74	16	99%

Table 9 The daily vitals during the IPD

07-Dec-24	5:00 AM	-	98.1° F	130/80	74	18	99%
	10:00 AM	-	98.2° F	130/80	70	18	97%
	9:00 PM	61.8 Kg	98.1° F	130/80	74	16	99%
08-Dec-24	5:00 AM	-	98.1° F	130/80	76	18	99%
	1:45 PM	-	97.8° F	120/80	82	20	99%
	8:00 PM	-	98.1° F	130/80	74	16	99%
09-Dec-24	5:00 AM	-	98.1° F	130/80	70	18	98%
	10:40 AM	-	98.1° F	140/80	108	18	98%
	8:00 PM	60 Kg	98.1° F	130/80	80	18	98%
10-Dec-24	5:00 AM	-	98.1° F	120/80	80	18	99%
	8:00 PM	-	98.1° F	130/80	74	16	99%
11-Dec-24	-	-	98.1° F	130/80	70	18	99%

Table 10. The laboratory investigations during the treatment period

Date	Breakfast		Lunch		Dinner	
	Before	After	Before	After	Before	After
20-Nov-24	-	-	-	-	-	367 mg/dL
21-Nov-24	240mg/dL	-	309 mg/dL	-	-	234 mg/dL
22-Nov-24	183 mg/dL	-	-	-	240 mg/dL	200 mg/dL
23-Nov-24	125 mg/dL	-	-	-	168 mg/dL	150 mg/dL
24-Nov-24	135 mg/dL	-	-	-	227 mg/dL	183 mg/dL
25-Nov-24	127 mg/dL	-	217 mg/dL	-	129 mg/dL	173 mg/dL
26-Nov-24	137 mg/dL	-	-	-	270 mg/dL	-
27-Nov-24	-	-	220 mg/dL	-	197 mg/dL	160 mg/dL
28-Nov-24	124 mg/dL	-	177 mg/dL	-	155 mg/dL	200 mg/dL
29-Nov-24	107mg/dL	-	-	-	160 mg/dL	188 mg/dL
30-Nov-24	99 mg/dL	-	-	-	-	207 mg/dL
01-Dec-24	100 mg/dL	-	-	135 mg/dL	-	189 mg/dL
02-Dec-24	98 mg/dL	-	-	126 mg/dL	-	250 mg/dL
03-Dec-24	88 mg/dL	-	-	180 mg/dL	-	223 mg/dL
04-Dec-24	97 mg/dL	-	-	182 mg/dL	-	163 mg/dL
05-Dec-24	86 mg/dL	-	-	170 mg/dL	-	145 mg/dL
06-Dec-24	81 mg/dL	-	-	153 mg/dL	-	192 mg/dL
07-Dec-24	104 mg/dL	-	-	-	-	200 mg/dL
08-Dec-24	87 mg/dL	-	-	125 mg/dL	-	-

Parameter	Findings			
Date	22-11-2024	26-11-2024	01-12-2024	06-12-2024
Haemoglobin	12.2 gm/dL	11.9 gm/dL	11.7 gm/dL	11.6 gm/dL
Urea	171.85 mg/dL	110.43 mg/dL	68.23 mg/dL	35.23 mg/dL
Creatinine	3.15 mg/dL	2.10 mg/dL	1.68 mg/dL	1.43 mg/dL
Uric acid	11.88 mg/dL	10.20 mg/dL	7.45 mg/dL	5.58 mg/dL
Sodium	135.2 mEq/L	139.3 mEq/L	138.5 mEq/L	145.3 mEq/L
Potassium	4.72 mEq/L	4.27 mEq/L	3.92 mEq/L	3.96 mEq/L
Chloride	105.1 mEq/L	103.7 mEq/L	101.2 mEq/L	105.6 mEq/L

Table 11. The vitals during the discharge

Parameter	Findings	Parameter	Findings
Temperature	98.1°F	Mutra	Samanya
Blood Pressure	120/70 mm of Hg	Jivha	Samanya
Pulse Rate	69/min	Shabda	Samanya
Weight	60 Kg	Sparsha	Samanya
Nadi	Vataj Pittaj	Mala	Samanya

Table 12. The medications advised during the discharge

Medicine Name	Ingredients	Dosage	Therapeutic Effects
Mutra Vardhak Vati	Gokshura (<i>Tribulus terrestris</i>), Guggul (<i>Commiphora wightii</i>), Sonth (<i>Zingiber officinale</i>), Kalimirch (<i>Piper nigrum</i>), Pippal (<i>Piper longum</i>), Bahera (<i>Terminalia bellerica</i>), Harad (<i>Terminalia chebula</i>), Amla (<i>Phyllanthus emblica</i>), Motha (<i>Cyperus rotundus</i>).	1 TAB BD (<i>Adhobhakta</i> with <i>koshna jala</i>)	Used for treating kidney stones, dysuria, painful micturition, high blood pressure, and inflammatory conditions, while
Dr. CKD Tablet	Pashanbled (<i>Bergenia ciliata</i>), Varun (<i>Crataeva nurval a</i>), Punarnava (<i>Boerhavia diffusa</i>), Gokhru (<i>Tribulus terrestris</i>), Apamarg (<i>Achyranthes aspera</i>), Haldi (<i>Curcuma longa</i>), Charila (<i>Embelia ribes</i>), Kulthi (<i>Dolichos biflorus</i>), Harad (<i>Terminalia chebula</i>), Bhumiawla (<i>Pyrosia piloselloides</i>), Giloy (<i>Tinospora cordifolia</i>), Shitalchini (<i>Vernonia cinerea</i>), Anantmol (<i>Hemidesmus indicus</i>), Khas (<i>Vetiveria zizanoides</i>), Yab Kshar, Muli Kshar (<i>Raphanus sativus</i>), Kalmi Shora, Sajji Kshar, Shilajit, Hajral Yahud, Shwet Parpati	1 TAB TDS (<i>Adhobhakta</i> with <i>koshna jala</i>)	Used for treating kidney disease, urinary tract infections (UTI), burning micturition, and supporting liver health.
Hrid Care	Lahshun BI. Ext. (<i>Allium sativum</i>), Arjun Bk. Ext. (<i>Terminalia arjuna</i>), Brahmi Lf. Ext. (<i>Bacopa monnieri</i>), Giloy St. Ext. (<i>Tinospora cordifolia</i>), Makoy Fr. Ext. (<i>Solanum nigrum</i>), Sarpagandha Sd. Ext. (<i>Rauvolfia serpentina</i>), Shankh Bhasam (<i>Turbinella pyrum</i>).	1 CAP BD (<i>Adhobhakta</i> with <i>Koshna jala</i>)	Used for CAD, HTN, acidity, insomnia, high blood pressure and arotic disease
Dr. Madhumeh	Gudmar (<i>Gymnema sylvestre</i>), Methi (<i>Trigonella foenum-graecum</i>), Giloy (<i>Tinospora cordifolia</i>), Neem (<i>Azadirachta indica</i>), Haritaki (<i>Terminalia chebula</i>), Karela (<i>Momordica charantia</i>), Chirayita (<i>Swertia chirayita</i>), Jamun (<i>Syzygium cumini</i>), Vijaysar (<i>Pterocarpus marsupium</i>), Daruhaldi (<i>Berberis aristata</i>), Karanj (<i>Pongamia pinnata</i>)	1 TAB BD (<i>Adhobhakta</i> with <i>koshna jala</i>)	Used for the management of kidney disorder and UTI
Divya Shakti Powder	Trikatu, Triphala, Nagarmotha (<i>Cyperus rotundus</i>), Vay Vidang (<i>Embelia ribes</i>), Chhoti Elaichi (<i>Elettaria cardamomum</i>), Tej Patta (<i>Cinnamomum tamala</i>), Laung (<i>Syzygium aromaticum</i>), Nishoth (<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>), Sazzikhar, Pushkarmool (<i>Inula racemosa</i>), Mishri (<i>Saccharum officinarum</i>).	Half a teaspoon HS (<i>Nishikal</i> with <i>koshna jala</i>)	Enhances overall vitality and energy levels, addressing fatigue and weakness.

An accurately designed DIP Diet was provided to the patient to complement the Ayurvedic treatments administered for CKD^[17]:

Treatment Plan:

Diet Plan:

Dietary Guidelines from Jeena Sikho Lifecare Limited Hospital:

- Avoid wheat, refined foods, dairy, coffee, tea, and packaged foods.
- Do not eat after 8 PM.
- When eating solid foods, take small bites and chew each bite 32 times.

Hydration:

- Sip water slowly, mindful of the amount consumed each time.
- Aim to drink 1 liter of alkaline water 3 to 4 times a day.

- Incorporate herbal tea, living water, and turmeric-infused water into your daily routine.
- Boil 2 liters of water and reduce it to 1 liter before drinking.

Millet Consumption:

- Include five types of millet in your diet: Foxtail, Barnyard, Little, Kodo, and Browntop millet.
- Cook the millets in mustard oil using stainless steel cookware.

Meal Timing and Structure:

- Early Morning (5:45 AM): Begin with herbal tea along with raw ginger and turmeric.
- Breakfast (8:30-9:30 AM): Have fruits (Apple/Papaya) and a fermented millet shake.
- Morning Snacks (11:00-11:20 AM): 100 gm of sprouts and 150 ml of red juice and soaked almonds.
- Lunch (12:30 PM - 2:00 PM): Two plates—Plate 1: steamed salad; Plate 2: cooked millet-based dish.
- Evening Snacks: Green juice (100-150 ml) and 4-5 almonds.
- Dinner (6:15-7:30 PM): Plate 1: raw salad, chutney, green garden delight, and soup; Plate 2: millet khichdi/fermented millets/ millet chapati.

Fasting:

- It is recommended to fast for one day.

Special Instructions:

- Offer thanks to the divine before eating or drinking.
- Practice Vajrasana after every meal.
- Take a slow 10-minute walk after each meal.

Diet Types:

- The diet includes low-salt solid, semi-solid, and smoothie options.
- Suggested foods include herbal tea, red juice, green juice, a variety of steamed fruits, fermented millet shakes, soaked almonds, and steamed salads.

Lifestyle Recommendations

1. Include meditation as a method for relieving stress.
2. Practice Yoga (Sukhasana and Sukshma Pranayama) between 6:00 AM and 7:00 AM.
3. Go for a brisk 30-minute barefoot walk.
4. Aim for 6-8 hours of restful sleep each night.
5. Follow a structured daily routine to maintain balance and organization in your life.

Panchakarma procedures administered to patients

AwagahSwedan^[18]

Procedure:

- The patient was submerged up to the navel in a tub of warm water.
- A carefully chosen blend of Ayurvedic medicines was added to the water.
- The temperature of water was maintained at 42°C.
- The patient spent 20 minutes under the conditions provided.

Physiology and mode of action:-

- Immersion in warm water causes vasodilation, increasing blood flow to the skin and stimulating sweating (Swedana), which helps eliminate toxins and metabolic waste, while improving oxygen and nutrient delivery to tissues.
- The heat opens skin pores, allowing better absorption of Ayurvedic compounds that reduce inflammation, fight oxidative stress, and promote healing by modulating pathways like NF-κB.
- The warmth activates the parasympathetic nervous system, lowering cortisol levels, relaxing muscles, and enhancing vagal tone to reduce stress and promote a sense of calm and overall body balance.
- Improved circulation and sweating stimulate the lymphatic system, aiding detoxification and supporting immune function to eliminate accumulated toxins and enhance overall health.

Shiropichu with Brahmi oil:**Procedure:**

- The patient was seated comfortably, and their scalp and forehead were cleansed.
- Brahmi oil was warmed to a comfortable temperature.
- The warmed Brahmi oil was gently applied to the forehead and scalp.
- A cloth pad soaked in the oil was placed on the forehead, covering the AjnaChakra and crown, and left in place for 15-30 minutes.

Physiology and mode of action

- Brahmi oil's active compounds, like bacosides, are absorbed through the scalp, improving neurotransmission, boosting acetylcholine release, and enhancing memory, focus, and mental clarity.
- The oil's antioxidant properties neutralize reactive oxygen species (ROS) in the brain, preventing neuronal damage, while its anti-inflammatory effects protect against neuro-inflammation and support cognitive function.
- Brahmi oil reduces cortisol levels, alleviating stress and calming the central nervous system, which helps stabilize emotions and promotes relaxation.
- Applying warm Brahmi oil enhances blood flow to the brain, delivering oxygen and nutrients to improve mental sharpness, while also balancing Vata and Pittadoshas to promote restful sleep and reduce insomnia.^[19,20]

MatraBasti with Arjuna oil and Punarnava oil**Procedure:**

- The Arjuna oil (45 ml) and Punarnava oil (45 ml) were mixed and warmed to body temperature.
- The enema kit was filled with the warmed oil mixture (90 ml) and cleaned thoroughly.
- The patient was positioned on the left side, and the oil was gently administered through the enema nozzle into the rectum.

Physiology and mode of action:

- The oils are absorbed through the rectal mucosa, entering the bloodstream directly, bypassing digestion, and nourishing tissues. This helps balance Vatadosha and supports overall tissue regeneration and vitality.
- Arjuna oil strengthens the heart, improves circulation, reduces blood pressure, and supports healthy blood vessels.
- Punarnava oil promotes kidney function, detoxifies the body, and reduces fluid retention, aiding in the elimination of waste and maintaining fluid balance.
- Both oils have anti-inflammatory properties, reducing inflammation in the heart, kidneys, and other tissues.
- Arjuna and Punarnava oils promote healing, rejuvenate tissues, improve heart and kidney function, and provide long-lasting benefits for detoxification and overall wellness^[21].

VrikkaBasti with Arjuna oil:**Procedure:**

- The patient was positioned in a prone posture, and a dough ring was placed over the kidney region (L1–L3).
- Warm **Arjuna** Oil (39–41°C) was poured into the dough ring and retained for 20–30 minutes.
- The oil temperature was maintained throughout the procedure by reheating as needed.
- After completion, the oil was removed, the area was cleaned, and the patient was advised to rest for 15–30 minutes.

Physiology and Mode of action:

- Arjuna oil is absorbed through the Skin, directly entering the bloodstream, where it nourishes the kidneys, enhances filtration, and supports detoxification by improving renal blood flow and waste elimination.
- Arjuna oil has cardiogenic properties, improving circulation, reducing blood pressure, and supporting heart function.
- The oil's anti-inflammatory properties reduce swelling and inflammation in the kidneys and other tissues, while its detoxifying effects help cleanse the body by eliminating toxins, supporting kidney function and reducing fluid retention.

- Arjuna oil promotes tissue regeneration and helps balance Vata dosha, reducing dryness and improving kidney function, leading to long-term healing, vitality, and overall well-being^[22].

Kashaya Basti with Gokshuradi and Punarnavadi:

Procedure:

- The Gokshuradi and Punarnavadi Kashaya were prepared by boiling the herbs and reducing the liquid.
- The decoctions were warmed to body temperature, and 300 ml of the prepared decoction was filled in the enema kit.
- The patient was positioned in the left lateral or knee-chest position.
- The enema nozzle was gently inserted into the rectum, and the Kashaya decoction (300 ml) was slowly administered.
- The patient rested for 10-15 minutes to allow the decoction to be absorbed.

Physiology and mode of action:

- The Kashaya decoction is absorbed through the rectal mucosa, allowing the medicinal compounds of Gokshura and Punarnava to quickly enter the bloodstream and target the kidneys, urinary tract, and lower abdomen.
- Gokshura improves kidney filtration and urinary flow, while Punarnava detoxifies the kidneys and reduces fluid retention, enhancing overall renal health and urinary function.
- Both herbs reduce inflammation in the kidneys and urinary tract, while promoting detoxification by eliminating accumulated toxins through the urinary system.
- Kashaya Basti balances Vata dosha, supports kidney function, and promotes the regeneration of kidney tissue, helping to restore overall fluid balance and improve vitality^[23,24].

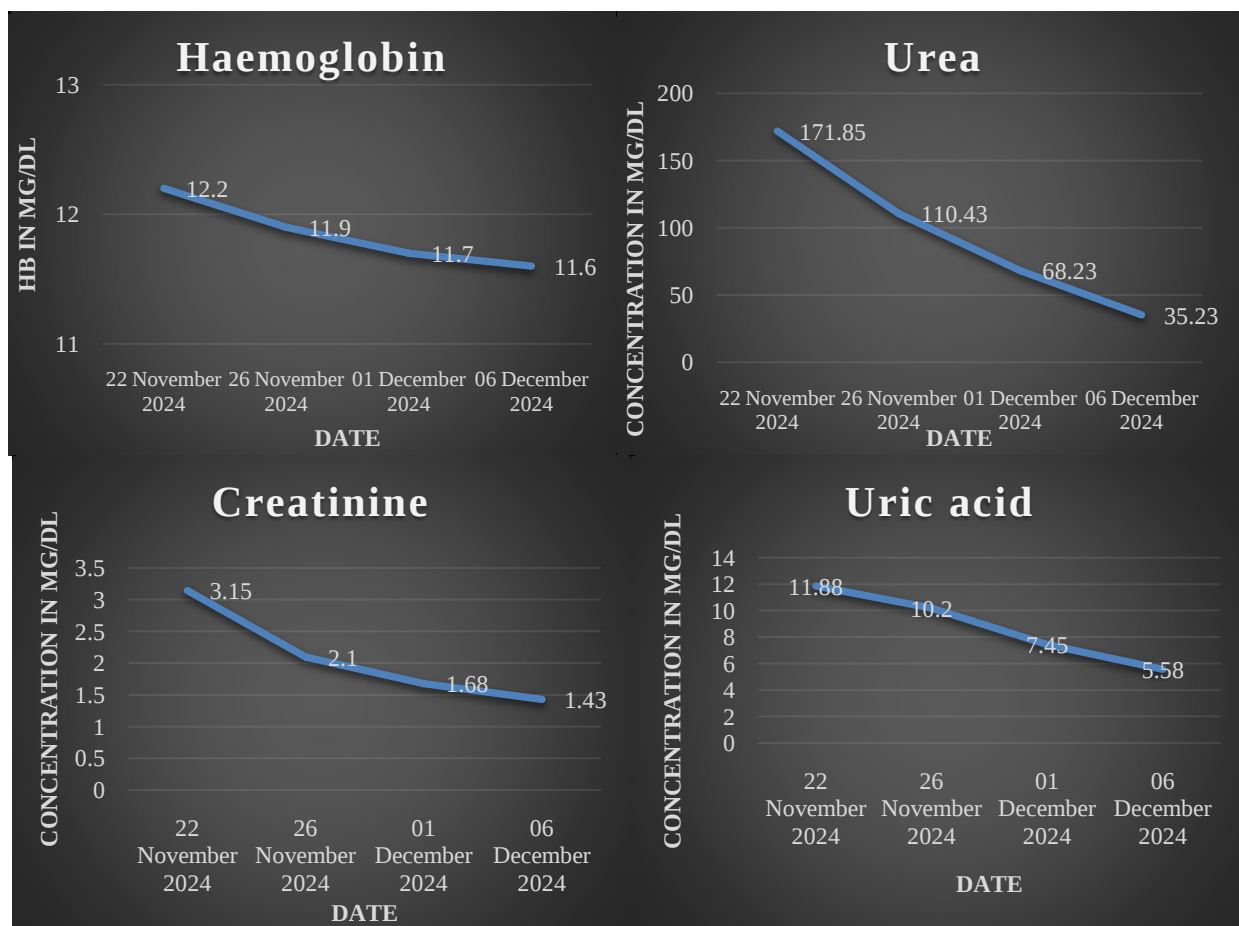
Medicinal Interventions:-

The Ayurvedic treatment employed in this case included Mutra Vardhak Vati, CKD Tablet, Hrid Care, Dr. Madhumeh, Divya Shakti Powder, Hrid Care, Prameh Rog Har, Mutavardhak vati, DM Capsule, CKD Shuddhi, GFR Powder, Yakrit Sanjeevani, Udar vikar powder, Rakt Stambhan, Kidney Shuddhi Ark, Cardiovascular Support Syrup, Jalodharhar Vati and Dr. CKD Tablet along with Panchakarma therapies.

Result:-

Effectiveness of Ayurvedic Treatments: The patient underwent IPF for 22 days, after the treatment he experienced noteworthy development in symptoms, which denotes the interventions used in the study are effective against CKD, hypertension, CAD and T2DM. Graphical representation of the assessment of the patient's vital signs are represented in **Fig 1**. At the time of discharge, the patient was well oriented and there was relief from pedal oedema and frothy urination which shows that the Ayurvedic interventions used in the case study are effective for CKD.

Fig 1 Graphical representation of the assessment of the patient's vital signs.

**Implications for Future Research:-**

A CKD patient with hypertension, CAD and T2DM was the subject of the current investigation, which produced encouraging findings. However, a more thorough assessment is necessary because of the small sample size of just one case. Future studies should use randomized controlled trials and bigger sample sizes to verify the safety, effectiveness, and dependability of the integrated Ayurvedic treatments. These kinds of investigations will be essential for creating standardized therapeutic standards and methods.

Discussion:-

Ayurvedic treatment integration for CKD offers a viable substitute for conventional medical methods. This case study describes the application of several Ayurvedic treatments to a 65-year-old man who has been diagnosed CKD with T2DM and Hypertension for 12 years and heart issues since 23 years. The patient's symptoms included constipation, loss of appetite, low urine output, frothy urination, SOB on exertion, 3° pitting pedal oedema. During his 22 days IPD, he underwent Panchakarma treatments as part of the Ayurvedic therapy regimen.

1. **AwagahaSwedan:** The patient is submerged in warm water with Ayurvedic herbs at 42°C for 20 minutes, promoting sweating, enhancing circulation, and detoxifying the body. It aids absorption of healing compounds, reduces stress, improves immune function, and promotes relaxation and overall health.
2. **Shiropichu with Brahmi oil:** Warm Brahmi oil is applied to the forehead and scalp, enhancing cognitive function, reducing stress, improving blood flow, and promoting relaxation and restful sleep.
3. **MatraBasti with Arjuna oil and Punarnava oil:** A 90 ml oil mixture is administered via enema, nourishing the heart and kidneys, promoting detoxification, heart health, and overall vitality.
4. **VrikkaBasti with Arjuna oil:** Warmed oil is absorbed via skin, nourishing kidneys, supporting detoxification, improving circulation, reducing inflammation, and promoting tissue regeneration, supporting long-term vitality.

5. **Gokshura and PunarnavaKashayaBasti:** A 300 ml decoction is administered via enema, improving kidney filtration, urinary flow, and detoxification, promoting regeneration, and balancing Vatadosha for overall wellness.

The Ayurvedic treatment regimen for this patient included a combination of ayurvedic formulations and Panchakarma therapies to address kidney dysfunction and related symptoms. Key remedies included Mutra Vardhak Vati for promoting healthy urine flow, CKD Tablet for chronic kidney disease support, and Hrid Care for cardiovascular health. Dr. Madhumeh helped manage blood sugar, while Divya Shakti Powder boosted vitality. Prameh Rog Har and Mutavardhak Vati targeted urinary and kidney health, especially in cases of fluid retention. DM Capsule supported diabetes management. GFR Powder improved Glomerular Filtration Rate, and Yakrit Sanjeevani supported liver detoxification. Udar Vikar Powder addressed digestive issues, and Rakt Stambhan promoted circulation. Kidney Shuddhi Ark and Jalodharhar Vati focused on detoxification and reducing fluid retention. Cardiovascular Support Syrup maintained heart health. Alongside these, Panchakarma treatments helped detoxify the body, with significant improvement in symptoms like constipation, pedal edema, and frothy urine. This case study highlights the benefits of combining traditional medical treatments with Ayurvedic therapy for managing CKD. Ayurvedic treatments offer a cost-effective approach targeting underlying imbalances, improving renal function, and addressing coexisting conditions like diabetes, CAD and hypertension. Further research is needed to confirm their effectiveness and safety in CKD management.

Conclusion:-

This case study evaluating the treatment of CKD with hypertension, CAD and T2DM through Ayurvedic interventions yields the following findings:

Symptoms: Upon admission, the patient presented with frothy urination, constipation, loss of appetite, low urine output and pedal oedema. After IPD Ayurvedic treatment, significant improvements were observed. The patient reported relief from pedal oedema, constipation, frothy urine with no new symptoms emerging, suggesting a marked improvement in kidney function and overall health.

Vitals: The patient's vital signs fluctuated during the treatment period. Blood pressure stabilized at varying levels throughout IPD. The patient's weight decreased from 68 kg to 60 kg, and there was a notable reduction in itching and lower limb ache, reflecting positive changes in both lifestyle and diet.

Investigations: Laboratory tests conducted during the treatment showed significant improvements in renal function. Blood urea levels decreased gradually from 171.85 mg/dL to 35.23 mg/dL, indicating enhanced kidney function. Similarly, serum creatinine levels reduced from 3.15 mg/dL to 1.43 mg/dL. Uric acid level also reduced from 11.88 mg/dL to 5.58 mg/dL. These results underscore the potential efficacy of Ayurvedic therapies in managing CKD.

The combination of allopathic treatments and Ayurvedic therapies for 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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