

Case Study: Naturopathy Intervention in Management of Creatinine Levels in CKD Patient

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Abstract: *Chronic renal failure is another name for chronic kidney disease. Naturopathy treatment has been shown to reduce creatinine levels, enhance renal functions, minimize water retention, and alleviate stress and accompanying symptoms such as weakness. Similarly, there are numerous complications with medication. A 39-year-old man arrived with chronic kidney failure and hypertension. He was treated for symptom relief, decreased creatinine levels, improved KFT fluctuations, and changes in urine routine examination, all of which were followed by naturopathy treatments. Yoga was practiced three times per week as part of a two-month follow-up. The results indicate that naturopathy treatment is good in terms of symptom reduction, creatinine level, and stable vital data. However, this case report shows that naturopathy treatment, yoga and life style changes helps to improve creatinine level along with other associated parameters, but need to try this in further cases to come to conclusion.*

Keywords: Chronic kidney diseases; Alternative medicine; Naturopathy; Diet; GFR; Serum creatinine

1. Introduction

CKD stands for Chronic Kidney Disease, a medical condition characterized by the gradual loss of kidney function over time. Kidneys are vital organs responsible for filtering waste products and excess fluids from the blood, producing urine, regulating blood pressure, and maintaining electrolyte balance in the body. When the kidneys are unable to perform these functions effectively due to damage or disease, it results in chronic kidney disease, it is represented by a glomerular filtration rate (GFR) of less than 60mL/min per 1.73m², or markers of kidney damage, or both, of at least 3 months duration.

CKD is typically divided into five stages, ranging from Stage 1 (mild kidney damage) to Stage 5 (end-stage renal disease, or ESRD). The severity of CKD is determined by a patient's GFR values, which measures how well the kidneys are filtering waste from the blood. Progression of chronic renal disease is associated with a number of serious complications including increased incidence of cardiovascular disease hyperlipidaemia, anaemia and metabolic bone disease.

In Indian scenario the prevalence of CKD was made out to be 17.2% with ~6% have CKD 3rd stage or worse. (<https://pubmed.ncbi.nlm.nih.gov/23714169>) This study discusses the alternative strategies and treatment option for reducing the serum creatinine level by improving the functions of kidney. In this study we had given naturopathy treatment. Naturopathy is a system of health care. Naturopathy is also defined as a system of medicine for cure of diseases by encouraging natural curative reactions inherent in every diseased cell through methods and treatments based upon the fundamental laws which govern health. The holistic approach to health care makes

Naturopathy very attractive to many people, but it also makes scientific evaluation very challenging because so many factors must be taken into account. Water is a main component of Naturopathy.

2. Case Report

A 39-year-old aged who have diagnosed with chronic renal failure associated with Hypertension since 5yr. He also had a family history of Hypertension. He had visited a naturopathy and yoga Hospital in the northern part of India. He has presented complaints of a water retention in legs, face, headache, nausea and lack of appetite since 3 months. Blood pressure was not under control. Lab report reading of Creatinine level was 4.39 mg/dl.

Clinical findings:

On initial examination his blood pressure was 170/102mmHg, Pulse rate was 88beats per minute and weight was 76kg. He underwent laboratory investigation (Table 5).

Following receipt of the written informed consent, the naturopathy treatments were scheduled to meet the patient's needs in an outpatient setting. NT was administered by a naturopathy therapist with over 15 years of clinical experience in the fields of naturopathy and yoga, who was recommended by a naturopathy and yoga physician for the first 60 days.

Treatment History

The patient is on anti hypertensive medicines since 2018 - 19, and during recent investigation in February 2023 the condition of CKD was diagnosed and the patient put on medication as per protocol mentioned in table 1.

Table 1

Medication
Tab. Nicardia CD Retard 30 mg
Tab. Cardivas 6.25mg
Tab. Tide 10 mg
Tab. Arkamine
Tab. Ativan 1mg
Tab. Sevcar 400mg
Tab. Febutaz 40mg

Line of Naturopathy Treatment:

The science of naturopathy is centred on using natural remedies to treat illnesses. It is based on the notion of working in tandem with the laws of nature, which are ever - present both inside and outside the body, and it exclusively employs natural resources—such as food, water, air, light, heat, and so forth—to treat illness (8). Naturopathy is a drugless, non - invasive, rational, and scientific medical system founded on the ideas of vitality, toxemia, the body's capacity for self - healing, and healthy living. Natural ingredients are used to administer treatments.

The naturopathic lifestyle, which has been practised for thousands of years as a comprehensive approach to mind - body health, is accessible and simple to follow (9) Kidney pack1. Your lower to middle back should be covered with a hot water bag. Place an ice pack over the lower part of the chest and the stomach. Flannel and dry cotton/khadi material ought to be wrapped over this. It will run between forty - five and an hour. Blood waste or excess fluid is removed by it. Foltation, which reroutes blood from the kidney's renal artery branches, leads off some of the blood from the renal vein into the muscular branches. The cold treatment causes

the blood vessels in the kidneys to narrow, which increases renal activity. This pack is beneficial when the urinary system is inflamed and the kidneys are severely congested. Because it fortifies the kidney, it helps with burning urine and albuminuria, or the outflow of albumin from the kidney.

Alternate hip bath:

It's common to call this unpleasant hipbath. The ideal temperature ranges for the hot tub and cold tub are 40 to 45 degrees Celsius and 10 to 18 degrees Celsius, respectively. For five minutes, the patient should alternate between sitting in the hot and cold tubs. Usually, the soak takes ten to twenty minutes. The head and neck should be kept cool with a cold compress. A final burst of cold water applied to the hips should conclude the treatment. This bath relieves sciatica, lumbago, ovaritis, cellulitis, and other genito - urinary organ neuralgias as well as chronic inflammatory disorders of the pelvic viscera. It provides relief from a variety of genito - urinary neuralgia conditions.

Mud Pack:

It is guaranteed that there are no rocks, compost, or other impurities in the mud. To create a smooth paste, it is combined with warm water. After allowing the liquid to cool, it is divided into strips of cloth that are different sizes based on the requirements. The patient received condition - specific counselling, was encouraged to seek regular treatments, and was given the assurance that naturopathy could address his complaints. The patient was also given an explanation of the treatment's basic principles. The patient was instructed to follow the treatment plan for three months.

Table 2: Details of Treatment:

Naturopathy Treatment:

S. No	Naturopathy Treatment	Duration	Frequency
1.	Abdominal massage	10minutes	6 Days a week
2.	Kidney pack	30 minutes/ regularly	6 Days a week
3.	Alternate hip bath	10minutes/regular	6 Days a week
4.	Mud pack to abdomen	10minutes/regular	6 Days a week
5.	Full body massage	45 minutes/Once a week	Once a week
6.	Steam bath with neutral chest pack	3 - 5minutes/twice a week	2 days a week
7.	Full body mud bath	Once a week	Once a week

Yoga Treatment:

The Yogic Viewpoint, The practical application of Indian philosophy is yoga. It addresses the consciousness factor and is the art and science of self - realization. Yoga seeks to

enhance not only one's physical well - being but also promotes disease prevention and treatment through regular practice.

Table 3: Yoga Protocol

S. No.	Yoga practice	position	No of rounds and times	Minutes
1.	Hands in and out breathing	Standing	12	4
1.	Abdominal breathing	Supine (lying down)	10	3
3.	Nadisuddhi	Sitting	8	2
4.	Bhramari	Sitting	4	3
5.	Sitali	Sitting	3	2
6.	Yogic relaxation techniques	Supine	10minutes	10
	Total			24minutes

DIET Therapy:

His diet was closely monitored, and specific recommendations were made, such as avoiding a high -

protein diet, limiting liquid intake, and utilising low - potassium foods. Steer clear of junk food and processed foods.

Table 4: Diet chart

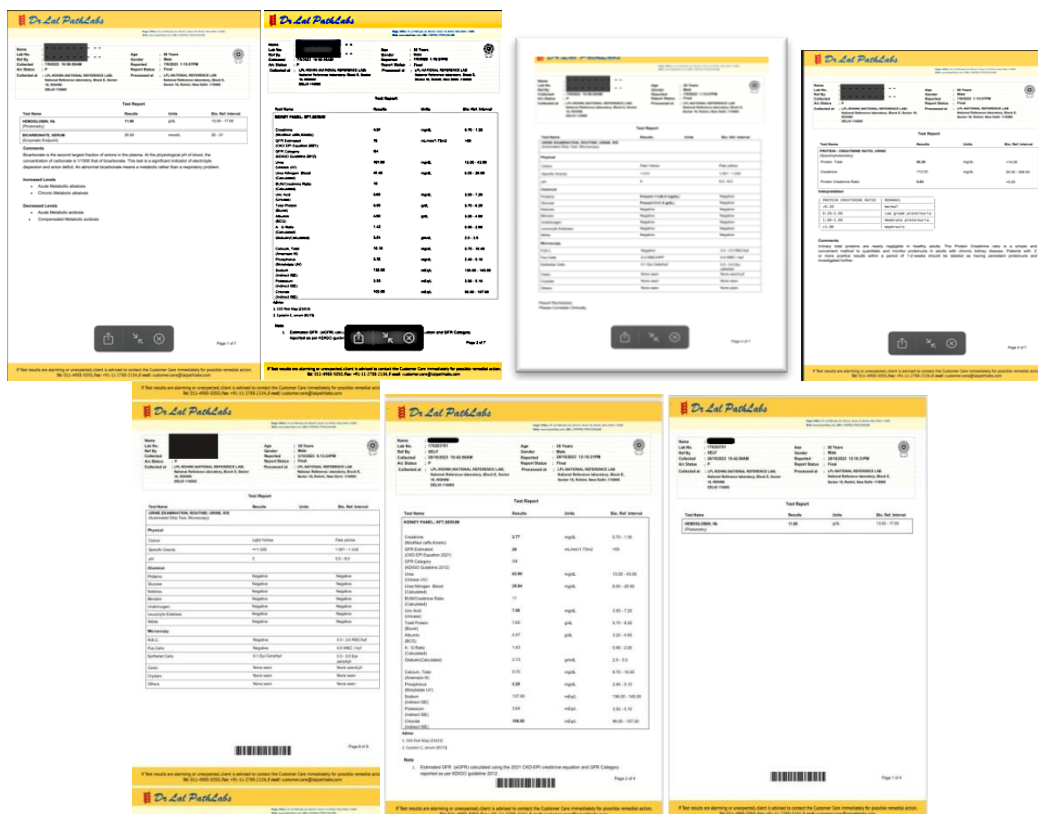
5.30 am	50ml of ash gourd juice
6.00pm	Coriander tea 10ml
8.00am	2 wheat dosa + coconut chutney+ / veg Dalia
11.00am	3 - 4 pieces of cucumber + Beetroot + carrot
1.00pm	1bowl rice +simmer vegetables + dal (leaching process)
4.00pm	Coriander tea
5.30pm	3 - 4 pieces of cucumber + Beetroot + carrot
7.00pm	2 – 3 Rotis + Boiled vegetables + dal
9.00pm	100 ml of skimmed milk

Table 5: Investigation Results: -

Reports	Before Treatment on 07/09/23	After Treatment 35 th Day	After Treatment 51 st Day
Serum Creatinine	4.57mg/dl	3.14mg/dl	2.77mg/dl
Haemoglobin	11.90g/dl	10.20g/dl	11.00g/dl
GFR	16mL/min	25mL/min	29mL/min/1.73m
Urea	101.64mg/dl	82.07mg/dl	63.90mg/dl
Uric acid	8.60mg/dl	7.91mg/dl	7.50mg/dl
Total protein	8.46g/dl	7.68g/dl	7.60g/dl
Albumin	4.99g/dl	4.59g/dl	4.47g/dl
Phosphorus	5.78mg/dl	3.68mg/dl	2.29mg/dl
Urine Routine Examination			
Proteins	Present I+ (30mg/dl)	Negative	
Glucose	Present 3+ (1.0g/dl)	Negative	

Table 5 displays the noteworthy decrease in serum creatinine that was noted over a 51 - day period starting on the day of treatment. GFR improved, going from 16 mL/min prior to the start of the naturopathy intervention to 29 mL/min on the 51st day of treatment. Table 5 shows the improvement in the

other parameters. Vital signs such as blood pressure, heart rate, breathing rate, and so forth remain constant both during and after the treatment. There was no weakness or weariness, and the patient was stable.



Follow Up:

The patient was instructed to stay on the treatment for the final nine days. The patient is recommended to continue treatment for a further three months, for a total of fourteen days (alternating days) every month, following the completion of the sixty - day course.

3. Discussion

Prior research indicates that people with chronic renal disease can instantly lower their serum creatinine levels by using alternative medicine. In contemporary medicine, managing hypertension, diabetes, proteinuria, anaemia,

mineral metabolism, lifestyle modifications, and renal replacement therapy (either dialysis or transplantation) are all part of managing chronic kidney illnesses.

In addition to traditional treatments, people with renal atrophy may benefit from lifestyle modifications and the usage of suggested foods. For patients with chronic renal insufficiency, the amount of protein consumed through diet may have a significant role in determining how quickly their renal function declines. Restricting one's diet's protein intake can effectively halt the progression of chronic renal failure.

Studies on the relationship between dietary salt limitation and the onset or development of chronic renal disease have not been conducted. "Naturopathy is a system of treatment which recognises the existence of the vital curative force within the body, " states the British Naturopathic Association's platform. Further research is necessary to determine how the intervention affected other indicators, such as glomerular filtration rate, as this study only examined the impact of the intervention on serum creatinine levels. It is necessary to investigate the herbal medicine's efficacy and safety. Research on complementary and alternative medicine strategies aimed at enhancing kidney function is required.

4. Conclusion

Previous research indicates that individuals with chronic renal disease may see a brief decrease in their serum creatinine level. Patients with chronic renal disease benefit greatly from naturopathic interventions, such as food therapy, which decrease serum creatinine levels.

To confirm the long - term effects of the alternative medicine intervention, which involves completely changing one's lifestyle to become more in line with nature, more research using different assessment instruments may be necessary.

More large - scale clinical trials are required for this study in order to demonstrate the impact of diet, yoga and naturopathy intervention on serum creatinine levels in the long run.

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Consent:

The authors attest that they have all necessary patient permission paperwork in their possession. The patient has provided permission on the form for the journal to publish additional clinical data. The patient is aware that although every attempt will be made to hide his identity and his name and initials will not be published, anonymity cannot be ensured.

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Conflicts of interest

There are no Conflicts of interest.

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