

Ayurvedic Management towards Chronic Kidney Disease-A Single Case Study

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ABSTRACT

Wide emergence of chronic kidney disease (CKD) may be considered as a global threat, but with simple diet, lifestyle modification and early intervention, it can be managed through Ayurveda. It is possible to withhold morbidity and mortality, which occurs due to CKD. Currently, available conventional treatments for CKD have their own limitations. Considering those, alternate remedies for curing and curbing the disease progression are being worldwide welcomed. . In the present study, 40-year-old female patient visited the outpatient department complaining, swelling in feet and ankle , nausea tiredness, etc. , she was prescribed with *Varunadikwatha* ,*punarnavaghanvati*were prescribed in the of management further treatment was altered and tailored according to the patient's condition, and The case clearly reveals the significance of ayurveda treatment modality in the management of CKD.

Keywords: *Ayurveda, Chronic Kidney Disease, Varunadi Kwatha, Punanrnnavadi Ghanvati*

INTRODUCTION

CKD is identified by blood test for creatinine, which is a breakdown product of muscle metabolism. Higher level of creatinine indicates a lower glomerular filtration rate and as a result a decreased capability of the kidneys to excrete waste products. The modern management of CKD is not satisfactory and the ultimate goal is renal transplant. It seeks attention from nephrologists and researchers to find out suitable remedial measure from other alternative resources, Ayurveda is one of them. The management diseases in Ayurveda are based on its totality effect of drugs and measures with minimal unwanted and side effects. Ayurveda proclaims that naming of diseases is not necessary but the mainstay is to assess the *Dosha, dushya, adhishtana* along with strength of disease and patient, then incorporate the appropriate therapeutic interventions. The disease CKD is not fairly known in Ayurveda, but on the basis of pathogenetic events we can assess and plan the management. In this regard we share our clinical experience of a 40 years old female who was suffering from chronic kidney disease since last 6 months.

MATERIAL AND METHOD

Method:

- Patient was treated on OPD basis
- Simple Random Single Case Study.

History of Present Illness:

The patient is known case of CKD since six years, and having complaints of body ache, pedal oedema , constipation ,vomiting and nausea. So, For *Ayurvedic* treatment, patient came to Kayachikitsa OPD Departmentof Dr. R. N. Lahoti Ayurved College, Hospital and Research Institute, Sultanpur, DistBuldhana of our institute.

Personal history:

O/E:

Name – XYZ	Pulse rate – 84/min	Sleep – Little Disturbed
Age – 40 yrs	B.P.- 150/90mmhg	<i>Agni – kshudhamandya</i>
Gender– Female	Temperature: 98.6 ⁰ F	
Marital status- Married	Bowel habit – Normal	
Prakruti - Pittakaphaj	Appetite – Reduced	

CHIEF COMPLAINTS

Difficulty in breathing, reduced appetite, swelling over face & lower limb, feverishness, incomplete evacuation of bowel, reduced urinary output and general weakness- since last 6 months.

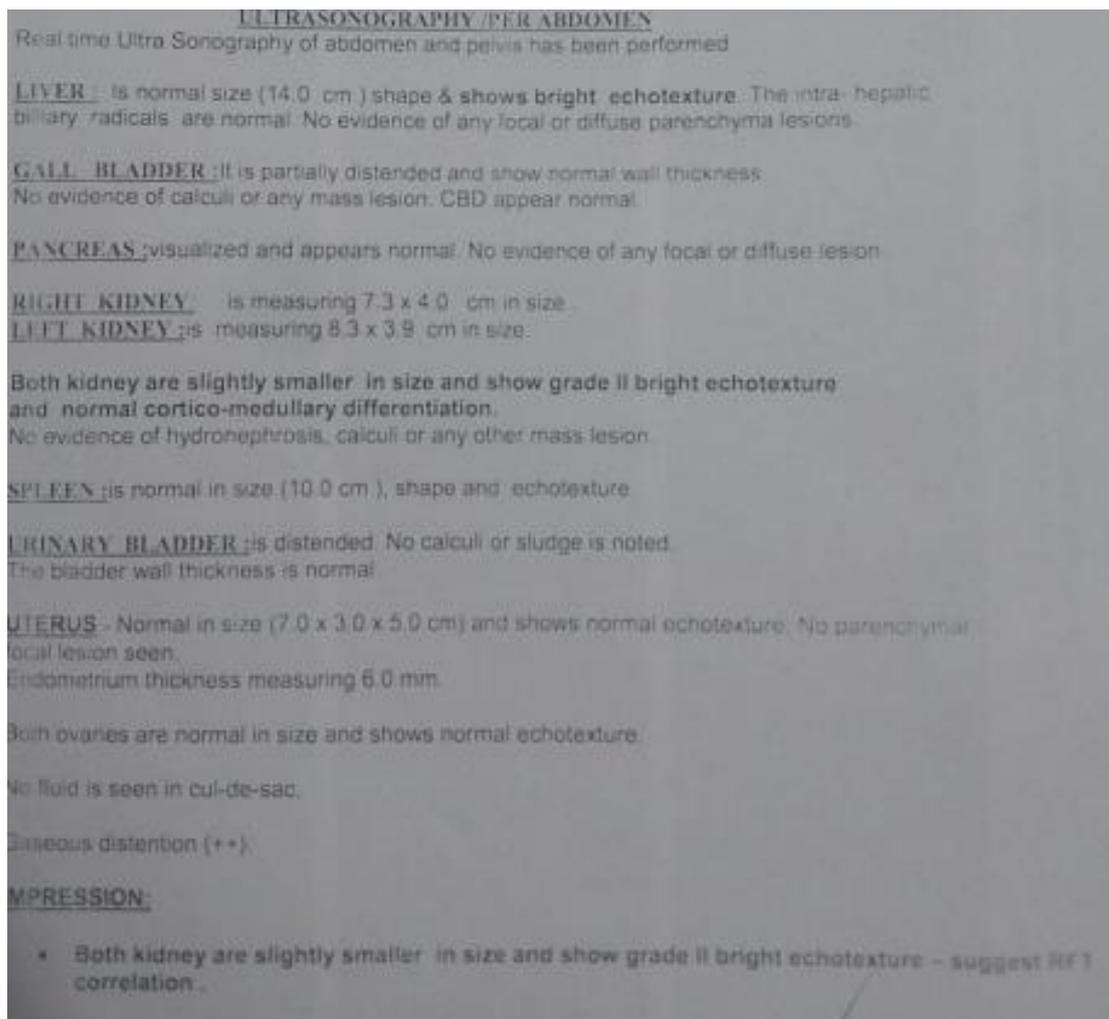
<p>NAME OF PATIENT-XYZ Age – 40 yrs Gender– Female Marital status-married Prakruti - Pittakaphaj Agni – <i>kshudhamandya</i> Appetite-reduced Sleep – Little Disturbed</p>	<p>INVESTIGATION- USG Biochemistry-Uric Acid Blood Urea Nitrogen,Serum Creatinine, Serum Urea</p>
<p>PHYSICAL EXAMINATION General condition- Ill looking B.P.:140/90mm of Hg. PR:85 regular, full bound Temperature:98.4⁰ F Respiration:18/min Tonsils: Normal (not enlarged) Tongue: Uncoated Thyroid : Not enlarged Jugular venous pressure: Not raised</p>	<p>Pallor: <i>Present(++)</i> Icterus: Absent Clubbing: Absent Cyanosis: Absent Lymph node: Not palpable Oedema : <i>Pedal oedema , and ankle swelling present - since 6 months</i> Lymphadenopathy: Not noticeable Local lesion: Absent</p>
<p>PERSONAL DETAILS: Build - lean Height - 5.3” Weight - 50 kg Personal history: Diet: mixed Appetite: reduced Bowel habits: constipated & off and on mucoid stool</p>	<p>Menstruation history- normal & regular Menstrual cycle- 25 to 30 days, lasting for 5 days, No abnormal vaginal bleeding and discharge. Micturition habit: reduced frequency, quantity and presence of sediments. Sleep: disturbed Marital status: married Addiction: no addiction Family history: no any history present</p>
<p>Systemic examination: CNS: Well oriented to person, place and time with intact higher mental function (memory, speech & intelligence) Motor- Normal DTR, Plantar-flexion Sensory- Intact sensory function (touch, pain, temp. pressure) CVS: Normal apex beat in 5th ICS, no murmur found. R/S: Inspection-B/l symmetry with normal movement of chest having no any scar. No</p>	

3. Veggies: bottled guard, bitter guard, ridge guard, smooth guard, pumpkin which contains water: easy for digestion,
4. Use of Barley (Yava), Sorghum (Jwara), Indian Gooseberry (Amla), Butter milk (Takra) , Green Gram (Mudga), Horse Gram (Kulattha)⁷.

- Breathing techniques **Prānāyāma**⁶ (total ~ 10-minute session)- Hands in and out breathing (10 rounds in 2 minutes),hand stretch breathing (10 rounds in 2 minutes),tiger breathing (10 rounds in 2 minutes), alternate nostril breathing (Nādisuddhi; in 5 minutes),left nostril breathing (Chandra AnulomaViloma; 27 rounds in 5 minutes, 4 times per day), humming bee breath (Bhramari; in 2 minutes), Cooling pranayama (Shitali; 9 rounds) and abdominal breathing in lying-down position in 2 minutes.

Observations & Result:

Sign and Symptoms	Before treatment	After treatment
Oedema	2	1
Nausea /Vomiting	2	1
Loss of Appetite	2	1
Serum Creatinine	5.40 mg/dl	3.7 mg/dl
BUN	92 mg/dl	39.23mg/dl
Uric Acid	6.1mg/dl	4.4 mg/dl



Above table show, that there is significant result of *ayurvedic treatment* in CKD.

EXAMINATION OF BLOOD				
TEST	PATIENT'S VALUES	UNITS	REFERENCE RANGE	
Sr. CREATININE	5.40	MG/DL	M 0.70 — 1.4	MG/DL
			F 0.60 — 1.2	MG/DL
BUN	92.00	MG/DL	07 — 21	MG/DL

EXAMINATION OF BLOOD		
INVESTIGATIONS	OBSERVED VALUE	NORMAL VALUE
Serum Creatinine	3.7 mg /dl	0.5 -1.4 mg /dl

CREATININE			
Test Name	Result	Unit	Reference Range
Serum Creatinine	4.27	mg/dl	0-1 month: 0.00-1.00 1 month-1 year: 0.10-0.80 1-16 years: 0.2-1.00 >16 years, female: 0.50-1.20 >16 years, male: 0.60 - 1.30
Techniques & Kits Used		Jaffe's Method, Sample Type - Serum	

Reports, Followup And Outcome

The treatment response was assessed on the basis of clinical symptomatology after a course of medicines for 15 days and significant improvement was found in the associated symptoms. The patient was advised to continue the given medicine for 15 days and asked to report.

In first follow up (after 15 days) it was found that patient got 50% improvement. The improvement in term of the patient's view in clinical symptoms was as follows: -

1. Reduction in breathlessness.
2. Reduction in facial and pedal oedema
3. Improvement in desire of intake of food
4. decrease observed in creatinine level from 5.40 to 3.7 mg/dl, uric acid level from 6.1 to 4.4 mg/dl, and blood urea level from 92 mg/dl to 39.23 mg/dl.

DISCUSSION

To treat CKD on Ayurvedic principles, it is necessary to identify the nature of disease in terms of its component *Dosha* (~humour), *Dushya* (~part which is affected), and *Adhishtana* (~abode). In CKD, impairment of renal function is

brought about by the derangement of *Tridoshas* (~three humours; *Vata*, *Pitta*, and *Kapha*), with predominance of *Vatadosha*, *Agnimandya* (~weak digestive fire), *Srotosanga* (~obstruction in microchannels of *Mutravahasrotas*), and *Vimargagamana*. It is essential to break the pathogenesis to get the desired results. In this case we observed that the given Ayurvedic drugs were significantly reduced the blood urea, sr. creatinine level. This is probably due to reno-protective and nephron-genetic effect of *Punarnawa*, which is the major part of current Ayurvedic prescription. Thus, the treatment of CKD aims at the enhancement of digestive fire, balancing vitiated *Doshas*, diuresis and control of excessive salt and water retention, *Srotoshuddhi* and *Rasayanachikitsa*; which may create an improved nutritional status by acting on levels of *Rasa*, *Agni*, and *Srotas*. In view of above line of treatment, the treatment of the present case was started.

The patient was a diagnosed case of CKD, with elevated serum urea, uric acid, creatinine level. Urea is nitrogenous end product produced from protein and amino acid catabolism, thereby excreted by the kidneys. The elevated levels are indicative of kidney hypofunction. Serum creatinine is a waste product produced as a result of muscle activity and removed by the kidney. Therefore, elevated level observed in renal disease. *varunadikashaya* and *Punarnavaghanvati* have depicted par excellence in the diseases of *Mutravahasrotas* by virtue of their *Rasayana* action, hence, included in the treatment.

The patient was administered *Varunadikwatha* due to its *Vatapittashamaka*, diuretic, kidney stimulant, and hemopoetic properties. By the virtue of *Rasa*, *Guna* it is *Pitta* pacifying, thereby maintaining normalcy, improving digestion and metabolism. It also alleviates oedema, being nephroprotective and anti-inflammatory ingredients has been prescribed. CKD involves the *Mutravahasrotas* primarily involving *Vata* vitiation, further causing degeneration of kidney tissue and structure. *Rasayana* drugs possess special tissue healing capabilities, thereby improving tissue qualities and increased resistance to structural damage.

CKD is a disease, which leads to gradual loss of kidney function. Dialysis is the only option for the patient and even though modern science, considers CKD as a irreversible disease. Ayurvedic treatment can be seen promising for the patients since they are cost effective and a positive result was seen during this patient treatment. Treatments through Ayurvedic medicine have shown significant improvement in this case. A significant reduction in Serum Creatinine, BUN, and uric acid was shown. Thus, we can say that the given ayurvedic drugs, diet management and Pranayama are effective in CKD.

CONCLUSION

The ayurvedic treatment has the capacity to normalize the associated clinical symptoms and laboratories parameters related to CKD. It provides a positive lead for further scope of the ayurvedic treatment in CKD.

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