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MANAGEMENT OF CHRONIC KIDNEY DISEASE IN AYURVEDIC SETTING : A CASE REPORT

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ABSTRACT :

Chronic diseases have become a major public health problem. Chronic diseases are a leading cause of morbidity and mortality in India and other low and middle income countries. The chronic diseases account for 60% of all deaths worldwide. Here we are reporting a case of CKD of a 34 year old male patient. The direct description of the disease is not available in Ayurvedic science, So we can compare the disease with Ayurvedic concepts only on the basis of general signs and symptoms. The possible understanding of the case in terms of Ayurveda and a therapeutic protocol with promising result has been discussed.Clinical finding of the patients suggest that chronic kidney disease is a disease of *Mutravaha Strotas.* So our aim was to improve the function of *Mutravaha Srotas* by *Mutravaha Srotosudhi*.The initial clinical history of the patient suggest that there *agnimandyata* and *amadoshasanchaya* play a important role in *Mutravaha srotodusti*.So *aamdoshapachan* along with *mutravaha srotosodhan* formed the basics of our treatment protocol.Our treatment protocol shows significant results in reduction blood urea and Serum creatinine level. Aalong with objective parameters significant results was obtained in subjective finding like marked reduction in swelling in bilateral lower limb,generalizrd weakness,pain in lower back etc in significant interval of time.

Keywords : Chronic kidney diseases, *Mutravaha srotodusti*, *Agnimandyata.*

INTRODUCTION: Chronic kidney diseases(CKD) encompasses a spectrum of different pathophysiologic processes associated with abnormal kidney function and a progressive decline in glomerular filtration rate(GFR). The epidemiologic transition has been fuelled by rapid economic development and globalization, leading to rapid urbanization, major lifestyle changes, and altered eating habits. This has been paralleled by a rapid spurt in the incidence and prevalence of non-communicable or so-called lifestyle diseases such as hypertension, diabetes, coronary artery disease, malignancies and chronic kidney disease (CKD).Eighty percentage of chronic disease deaths worldwide occur in low- and middle-income countries[1]. The global annual growth of number of ESRD patients is reported at 7% .[2,3]The incidence was suggested to be 100 per million population (pmp)[4,5] by single center studies from tertiary care hospitals and from experience of opinion leaders. The prevalence of CKD was reported to be 0.79% in study from Delhi which screened 4972 adults. This study used a serum creatinine cut off>1.8mg/dl to define CKD and hence underestimating the prevalence[6]. Another study by Mani et al in a South Indian village reported the prevalence of GFR < 15ml/min (CKD stage V) to be 0.09%.[7] Etiology of CKD in india is diabetic nephropathy(31.2%), undetermined

(16.4%),chronic glomerulonephritis13.8%, hypertension(12.8%), tubulointestinal diseases(7%),obstructive usropathy(3.4%),autosomal dominant polycyctic kidney diseases(2.5%),renovascular diseases(0.8%),kidney transplant graft loss(0.3%),others(11.7%).Clinical and laboratory manifestation of Chronic kidney diseases include fluid,electrolyte and acid base disorders,disturbed potassium homeostasis,metabolic acidosis,disorders of calcium and phosphate metabolism,cardiovascular abnormality include ischaemic heart diseases,heart failure,hypertension and left ventricular failure and pericardial diseases,haematological abnormalities include anemia,neuromuscular abnormalities,G.I.T and nutritional abnormalities,endocrine and metabolic disturbanceetc.[8] The initial approach for evaluation of patients with CKD include history and physical examination,laboratory investigations includes RFTs,serum concentration of calcium,phosphorus,PTH to evaluate metabolic bone diseases,Hb,iron,folic acid,foliate,24 h urine evaluation,imaging studies and renal biopsy.[9] Treatment of CKD aimed at specific causes of CKD. For slowing the progress of CKD concern is given to protein restriction,reducing intraglomerular hypertension and proteinuria,control of blood sugar,managing the complications.Finally renal replacement theraphy is option.

Case Report: A 34 year old male patient admitted to N.I.A. hospital on dated 12-9-2014 with chief complaints of generalized weakness, pain in back region, vertigo, swelling in bilateral lower limb since 2 years.

Associated complaints: Decreased appetite, sleep disturbance.

History of present illness : According to patient he was asymptomatic 3yr ago. Then he developed fever with chills and generalized weakness. Patient consulted to physician. He undergoes blood investigation, USG and U/E(urine examination) and diagnosed as UTI. He was given treatment accordingly. Then after 1 year he developed ulcer in his right leg. He consulted to physician and his B.P. found to be high. He was given medicine for that. Patient continue the medicine and after 6 months he c/o swelling in B/L lower limbs(it was of pitting type). He again undergoes RFT and USG and took treatment but swelling did not subside. Then he visited to SAFDARJANG HOSPITAL DELHI and took treatment for 4 months. Swelling subside but advised for kidney transplantation. After 3 months his urea and creatinine level found to be further increased. He stopped all medicine and took Amway products for 3 months. But the improvement was not satisfactory. During the same period he was also developed easy fatigue weakness (patient got tired with mild exertion) pain in back region(nonradiating ,dull type, increase after prolong sitting and standing and relieved by lying down) vertigo and diagnosed as hypothyroidism and eltroxin(25 mcg) started. As he did not get adequate result so he visited to N.I.A. for Ayurvedic treatment.

Past History: H/O HTN since 2 years, hypothyroidism since 6 months.

No h/o DM, TB, No any surgical history,

Drug history: Anti HTN (Beta blockers since 2 years), Eltroxin since 6 months.

Vitals at the time of admission in N.I.A.:

Nadi - 84/min, Mala –normal, Mutra-normal, Jiva- Saam,Shabda-clear, Sparsh-rukash, Druk-normal, Akruti-thin

B.P. 130/90mm of Hg,Temprature-98.4 ^{0}F,Body weight-45 kg,R.R.-18/min.

Physical examination: General condition – fair**,** Pallor$^+$, Icterus^0, Cyanosis^0, Club-bing^0 **,** Pedal Oedema^{++} pitting**,**Lymph node not palpable**,**Respiratory system-abdominothoracic respiration,NAD

G.I. tracts: NAD ,CVS-NAD,CNS-NAD.

Lab Investigation done

Blood examination: (on dated 12-9-2014)

CBC: mild normocytic normochromic anemia

LFT:Serum albumin-2.5gm/dl
Serum globulin-1.81gm/dl
Serum total protein -4.81 gm/dl

RFT : Serum urea-150 mg /dl
Serum creatinine- 4.8 mg/dl

Electrolyte: Serum Na-130 mmol/lit
Serum pottasium-6.6 mg/dl
Serum calcium(ionic)-1.44 mg/dl

Lipid profile:
Serum cholesterol-448 mg/dl

Urine examination:
24hr urinary protein-2 plus

CXR : NAD

USG: 8-3-2013 - Chronic renal paren-chymal diseases

20-1-2014 - B/L small kidney with grade 3 increased cortical echogenicity

DIAGNOSIS:

- On the basis of Signs and symp-toms and the past history of the disease, The initial indications were suggestive of involvement of *Mutravaha Strotas.*
- As the patients was also diagnosed as Hypothyroidism so there must be decrease in BMR of the body which also lead to *Agnimandyata* and further *Amasancaya.*

So our aim was to improve the function of *Mutravaha Srotas* by *Mutravaha Srotosudhi* and *Ama Doshapachana*

MATERIAL AND METHODS

MATERIAL:

1. *Bakayana Swarasa* - 10 ml BD
2. Tab. *Shiva Gutika* - 500 mg BD
3. Cap . *Bakayana* - 500 mg BD
4. Cap. *Bhringraj*- 500mg BD
5. Cap. Nephromed- 500mg BD

METHODS:

Centre of study-NIA Jaipur

Method of sampling & Study Design-Simple randomized single case study.

RESULTS

Table :1RFT level before taking treatment from N.I.A.

Date	25-7-13	27-8-13	28-9-13	8-2-14	24-2-14	23-3-14	22-4-14	23-6-`14	12-9-14
Blood Urea(mg/dl)	73	105	91	136	120	45	87	81.7	150
Blood Creatinine (mg/dl)	2.5	5.6	5.8	5.4	4	3.8	5	5.4	4.8

Table :2 RFT level after taking treatment from N.I.A.

Date	24-9-14	20-10-14	28-11-14
Blood Urea(mg/dl)	114	120	83
Blood Creatinine(mg/dl)	4.6	4.6	2.7

Table :3 The improvement shown on different parameters in nutshell

	B.T.	A.T.
1.Sr. Urea	150	83
2.Sr. Creatinine	4.8	2.7

DISCUSSION ON RESULTS: As we know that a normal kidney filters Urea and Creatinine through glomular membrane So decrease in Sr. Creatinine level shows that there is an improvement in Glomular filtration.The propable action of drug will be-

1. ***Bakayana*** : It is known nephroprotective drug[10,11] having mainly *Tikta Rasa* which also has the property of *Deepana, Pachana, Lekhana* and *Shodhana*.

2.*Shiva Gutika*[12] : It contains *Shilajith,Shunthi, Pippali, Katuka, Karkatashringi, Maricha, Vidarikanda,Talisapatra,Vamshalochana,Patra, Twak,Nagakeshra,Ela,Seasamum oil, Sugar, Ghee, Honey.Shilajatu* the main ingredient of *Shiva Gutika* .It is useful in alleviating *tridosha*.It possess *Rasayana, Vrishya* properties[13]. It is said that there is no such diseases which cannot be cure with *Shilajatu*[14].*Shilajatu* is also used as *yogavaha* as it increase efficacy of many drugs. *Shilajatu* has significant anti-inflammatory, analgesic, immunomodulatory,antiviral and antioxidant activity[15] Its main constituent is *Shilajit* which acts on *Mutravaha Srotas* and also has the *Rasayana* property.

3. ***Bhringraj*:** It is well known heptoprotective drug[16] and also established as Anti HTN drug through clinical trials.[17]

4. **Nephromed:** It is patent medicine of SURYA pharmacy which mainly contains drugs acting on *Mutravaha Srotas*. It contain drugs like *Punarnava, Gokhru, Trinpanchmool, Apamarg, Shigru, Lal chandan, Shirish, Varunatwak.*

CONCLUSION: On the basis of above case study it can be concluded that *Bakayan* Swaras and capsule, *Bhringraj, Shiva gutika* and cap nephromed is quite effective in management of chronic renal failure.

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