

AYURVEDIC MANAGEMENT OF DERANGED SERUM CREATININE AND UREA - A CASE STUDY

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ABSTRACT

Sedentary lifestyle and ever-changing food habits had lead a toll on human health. Processed food and day to day piling up of mental stress has long term effects on mind and body affecting physiological process of vital systems. When liver and kidney functions are affected it results in altered serum creatinine and urea levels. According to *Ayurveda* liver - *Yakrut* is place of digestive fire and *Moolasthan* of *Rakta dhatu*^[1], while kidneys are formed by *Sara bhaga* of this *Rakta dhatu* and *Meda dhatu*.^[2] By considering this a case was studied for deranged serum creatinine and urea levels and was subjected to Ayurvedic line

of management. *Varunadi Kwath*, *Cap. Hemron* (Heil German) and *Chandraprabha vati* were given to subject for one month. Reports taken before and after the study showed satisfactory results.

KEYWORD: *Rakta dhatu, Meda dhatu, Varunadi Kwath, Chandraprabha vati.*

INTRODUCTION

The process of metabolism in human body is a complex mechanism. According to *Ayurveda* initial part of intestine - *Grahani* is the seat for digestive fire - *Agni*. By virtue of this *Agni* it has following roles; *Annam gruhati* - *pachati*- *vivechati*- *munchati*^[3] which means to ingest food - to digest it - separate useful and unwanted parts - excretion of unwanted parts. When *Agni* is not in its optimum functioning it eventually affects above stated roles, thus resulting in various ailments. As stated in *Ayurvedic* texts *Agni mandya* results in formation of *Aam*

which is root cause of all diseases. Formation of good quality *dhatu* thus cannot be achieved resulting in *Dhatvagni mandya*. This *Dhatvagni mandya* forms low quality *dhatu*s which are seat for underlying disease condition. In modern science perspective deranged serum creatinine and urea are directly reflecting on improper kidney function. The glomerular filtration is affected resulting in these deranged values in serum. The efficacy of basic kidney unit - Nephron is hampered by idiopathic causes and thus Glomerular filtration rate is altered.

In present case study Ayurvedic management was given to subject by considering his *Agni bala*, *Aam*, *Dhatu* quality by *Dhatvagni mandya*, and balancing vitiated Doshas.

CASE REPORT

Patient name; xyz

Age/sex - 65yrs, F

Date of T/T - 18/01/2019 to 27/02/2019

c/o -

- Oliguria (2-3 times in 24 hr)
- Loss of appetite
- Nausea
- General fatigue
- Puffiness all over the body

No any significant past history.

No any addiction.

O/e -

G.C. fair, afebrile

Pulse rate- 86/min

B.P. - 146/90 mm of Hg

Investigation

BSL, Sr. creatinine and urea

Treatment

Following treatment was given to the subject,

1. Varunadi Kashaya - (B.R. 36/4)^[4]

(40ml with water - empty stomach in morning)

2. Cap.Hemron* (1 BD after food)

| Content | Wt. in mg. |
|-------------------------|------------|
| <i>Punarnava mandur</i> | 200 |
| <i>Amalki Ghana</i> | 100 |
| <i>Guduchi Ghana</i> | 50 |
| <i>Bhirngaraj Ghana</i> | 50 |
| <i>Haritaki Ghana</i> | 50 |
| <i>Behada Ghana</i> | 50 |

* Ayurvedic proprietary medicine (Heil German)

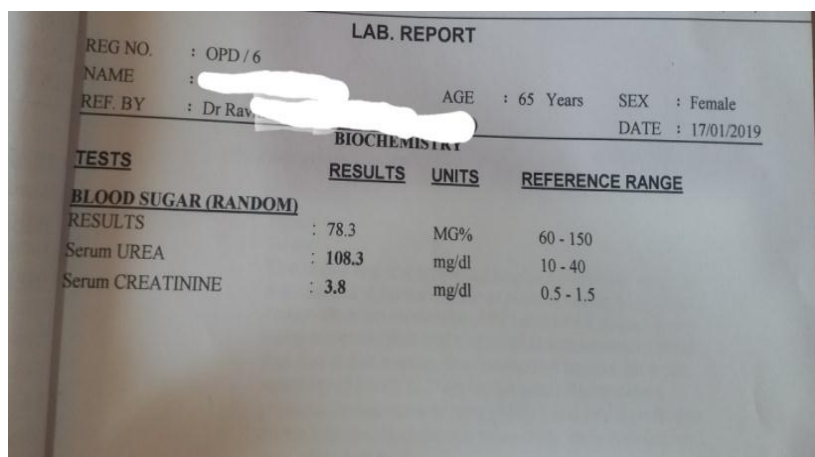
3. Candraprabha Vati - (Sha.S.M.K. 7/40-44)^[5]

(1 B.D. before food)

Above treatment protocol was followed for one month.

RESULT

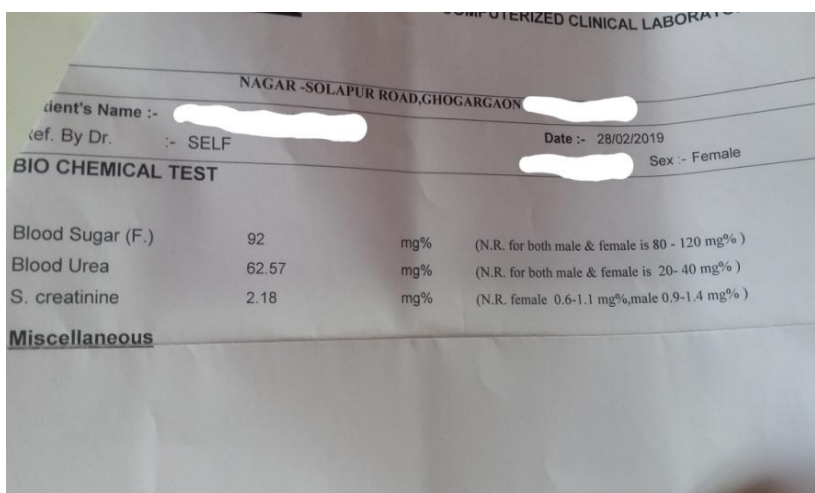
Objective criteria of assessment - Lab investigation.



A photograph of a handwritten lab report. The header 'LAB. REPORT' is at the top. Patient details include REG NO. : OPD / 6, NAME : [redacted], REF. BY : Dr. Rav [redacted], AGE : 65 Years, SEX : Female, and DATE : 17/01/2019. The section 'BIOCHEMISTRY' contains a table with columns 'TESTS', 'RESULTS', 'UNITS', and 'REFERENCE RANGE'. The tests listed are BLOOD SUGAR (RANDOM), Serum UREA, and Serum CREATININE, with their respective results and units.

| TESTS | RESULTS | UNITS | REFERENCE RANGE |
|----------------------|---------|-------|-----------------|
| BLOOD SUGAR (RANDOM) | 78.3 | MG% | 60 - 150 |
| Serum UREA | 108.3 | mg/dl | 10 - 40 |
| Serum CREATININE | 3.8 | mg/dl | 0.5 - 1.5 |

Above are the lab reports before the case study.



A photograph of a handwritten lab report. The header 'COMPUTERIZED CLINICAL LABORATORY' is at the top. Patient details include Patient's Name :- [redacted], Ref. By Dr. :- SELF, Date :- 28/02/2019, and Sex :- Female. The section 'BIO CHEMICAL TEST' contains a table with columns for the test name, result, unit, and reference range. The tests listed are Blood Sugar (F.), Blood Urea, and S. creatinine, with their respective results and units.

| TEST | RESULT | UNIT | REFERENCE RANGE |
|------------------|--------|------|---|
| Blood Sugar (F.) | 92 | mg% | (N.R. for both male & female is 80 - 120 mg%) |
| Blood Urea | 62.57 | mg% | (N.R. for both male & female is 20- 40 mg%) |
| S. creatinine | 2.18 | mg% | (N.R. female 0.6-1.1 mg%, male 0.9-1.4 mg%) |

These are the lab reports taken after one month of *Ayurvedic* management.

Subjective criteria for assessment

The subjective symptoms such as oligurea, nausea, loss of appetite were decreased satisfactorily, while general fatigue and all body puffiness were not decreased considerably.

DISCUSSION

The difference in before and after results of objective as well as subjective criteria can be discussed on the basis of drug action mechanism.

Varunadi Kwath is mentioned in *Bhishajya ratnavali Ashmarirog chikitsa*. Its contents such as *Varuna*, *Gokshura*, *Trun panchamula*, *Kulith* and *Musali* have direct correcting effect on *Vrikka*. It improves the nephron function and thus may increase the Glomerular filtration which directly corresponds to serum creatinine levels. *Gokshura* and *Trun panchamula* helps to evacuate the unwanted excess waste materials through kidneys. It was advocated to take this empty stomach, as *Kwath* preparation is heavy to digest and it needs optimum *Agni* to assimilate it and enhance its functioning.

Cap. Hemron has *Punarnava mandur* as one of its content. It is a classical *Ayurvedic* medicine which helps to improve *Rakta dhatu* qualitatively. The serum is a part of blood and thus improving the quality of it would decrease the load on kidneys filtration. Other contents such as *Bhringaraj*, *Amalki Ghana*, *Guduchi Ghana*, *Hiritaki Ghana* and *Behada Ghana* improve the functioning of *Yakrut*. Its proper functioning tends to rectify the digestive fire - *Agni*, which in turn produces good quality of *Dhatu*s and also aids *Grahani* to eliminate waste products. By above combined effect the production of *Rakta* and *Meda dhatu* is improved which are *moolsthana* of *Vrikka*. Hence is supporting in elevating kidney functions.

Chandraprabha vati is also a classical *Ayurvedic* medicine. Its contents such as *shilajatu*, *loha bhasma*, *vacha*, *musta*, *triphala* it balances the water content - *Kleda* of body. The regulation of *Kleda* is done through urination. By virtue of this drug the urine output increases and eventually it supports elimination of unwanted toxic substances through urine. The *Snigdhatva* of *Meda dhatu* is also controlled by rectifying *dhatvagni mandya* of the same. It also has kidney protective effect from various insults which tend to deteriorate its functions.

CONCLUSION

To correct the underlying pathology one has to think about its cause - *Nidana* and factors influencing it. In context of above case study it can be concluded that Ayurvedic way of management helps to identify the *Nidana* and also the factors influencing normal kidney function. Here to manage deranged serum creatinine and urea level the concept of organ development - *Avayav utpatti* is useful. The kidneys - *Vrika* are made up of *Rakta* and *Meda dhatu*. Also there is *Agni mandya* resulting in accumulation of toxic metabolites - *Aam*. Hence holistic treatment protocol of acting on *Rakta - Meda Dhatu* along with altering *Agni mandya* had given satisfactory outcome.

REFERENCES

1. Prof. Ravi Dutt Tripathi, Charak Samhita, Purvardha, reprint, Varanasi, Choukhamba Prakashan, 2011; 588.
2. G.D. Singhal, Susruta Samhita, Part -2, 2nd edition, Varanasi, Choukhamba Prakashan, 2007; 41.
3. Dr. Bramhanand Tripathi, Charak Samhita, Utardha, reprint, Varanasi, Choukhamba Prakashan, 2013; 561.
4. Shri Kaviraj Ambikadatta Shastri, Bhaisajyaratnavali, reprint, Varanasi, Choukhamba Prakashan, 2018; 712.
5. Dr. Bramhanand Tripathi, Sarangadhara Samhita, reprint, Varanasi, Choukhamba Prakashan, 2006; 201.