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# AYURVEDIC MANAGEMENT OF CLINICAL MICROALBUMINIURIA IN A CASE OF PRAMEHA W.S.R TO DIABETES MELLITUS

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***Abstract*** :– Diabetes mellitus is a chronic heterogenous metabolic syndrome characterized by persistent hyperglycemic due to absolute or relative deficiency of insulin or insulin resistance or both which affect the metabolism of carbohydrate, fats, and protein along with significance disturbance of water electrolyte hemostasis.

Diabetes mellitus is generally more common in today era due to the lifestyle disorder. As per WHO in India more than 77 million people > 18 years are suffering from Type 2 Diabetes from which diabetic nephropathy is the commonest and second cause in renal disease. Microalbuminuria is considered as the earliest detection sign of renal damage in Diabetes mellitus. The Clinical microalbuminuria range is >300mg/24hr. Though there is no direct reference of Diabetic Nephropathy in ayurveda but we can corelate this condition with Prameha which is mentioned under Meda pradoshaja vikara and pradhan dushya of Prameha is Meda so medavaha srotodusthi definitely occurs in this condition. The origin of Medavaha srotos are vrikka and vapavahan. So, it is clearly indicating that there is involvement of Vrikka in Prameha roga. In Prameha the Kha Vaigunya occurs in Vasti which refers to whole Mutravaha Srotos. In this present study a 71 years old female patient presented in OPD of kayachikitsa at IPGAE & R at SVSP hospital Kolkata on 19.07.2024 with chief complaint of excessive passing of frothy urine (Avila Phena Mutrata) since 15days, swelling of both lower limbs from knee joint upto feet since 1month (Pada Sotha), burning sensation in both upper and lower limbs since 6month (Kara Pada Daha). The positive findings of the raised glucose level in blood and the significant increase of clinical microalbuminuria confirms the case as Prameha with Diabetic nephropathy. The treatment plan was adopted for this, case is the use of shaman ousadhis with Dasamula Kashaya and trikatu, Nisaamalakiadi yog , Punnarva mandura, Gokshuradi guggul along with proper Pathya Ahara and Vihara for 3months. After the completion of 3 months there was marked improvement of subjective and objective parameters related to this case.

***Keywords*** – Prameha, Medavaha Srotos Mutravaha Srotos, Microalbuminuria

## ❖ INTRODUCTION

Purvaroopa of Prameha is mentioned under Meda Pradoshaja Vikar (disease caused by vitiated Meda dhatu) [1]. Prameha which is explained as increased frequency and altered turbidity of urine. In Dalhan tikka it is mentioned as ***Avila Prabuta Mutra***. Here **AVILA** refers to the term ***"Samala"*** which means urine vitiated with any kind of doshas; **PRABUTA** means excess amount of urine. Prameha should be considered as group of urinary disorders [2]. The sign and symptoms of the particular Prameha along with the characteristic of mutra depends on the qualitative and quantitive derangement of involved doshas. As broadly Prameha is classified into 3 Types which is again subdivided into 20 types 1. Kaphaja (10types) 2. Pittaja (6types) 3. Vataja(4types).[3]. But as per the Samprapti, all tridoshas are vitiated and the Pradhan dosha is **Kapha dosha** and Pradhan dushya is **Bahu Abaddha Meda dhatu** which refers to altered state of meda dhatu. [4]. The types of Dosha which have entered the Vasti in vitiated condition give rise to the respective types of Meha with their dominance. It is also mentioned in Charak Samhita that meda, mamsa and kleda are definitely vitiated in all type of Prameha.

As this is a single case study of a patient suffering from Prameha along with lakshana excessive passing of frothy urine (Avila Phena Mutrata), swelling of both lower limbs from knee joint upto feet (Pada Sotha), burning sensation in both upper and lower limbs (Kara Pada Daha). The Ayurvedic Management through Shaman Ousadhi not only control the Prameha, but the earliest sign of renal damage i.e. clinical microalbuminuria and the pitting edema scale of grade4+ was also reduced and was back to normal through proper and logical treatment.

## ➢ Case Report-

A 71-year-old female patient attended the OPD of IPGAE & R at SVSP Hospital Kolkata, West Bengal and she was admitted in our hospital for better management.

### Chief complaint :-

1. **Avila Phena Mutrata** (Excessive passing of frothy urine since 15 days

2. **Pada Sotha** (Swelling of both lower limbs) since 1 month

3.**Kara Pada daha** (Burning sensation of both upper and lower limbs) since 6 months.

### History of present illness –

Patient was apparently well before 6months then gradually the symptoms started like passing frothy urine since 15days along with development of swelling of both lower limbs since 1 month and burning sensation of palm and sole since 6months .There was also history of irregular intake of oral hypoglycemic drug such as Metformin(500mg) and Glimipride (2mg).

**History of Past illness :** No such relevant history found.

**Family history**:- No such relevant history found in her family

**Menstrual history: -** Surgical Menopause at the age of 51years

**Surgical history:-** Hysterectomy

**Drug history:-** Metformin 500mg. ; Glimepiride 2 mg

**Personal history:-** Appetite – Poor

Bowel – Unsatisfactory and irregular bowel

**Bladder- Frequent urination at night**

Sleep- Disturbed

Addiction – No such addiction

**General Examination**:-

Patient was conscious, alert and well oriented

1. Appearance – Anxious
2. Decubitus – Off choice
3. Build – Moderate.
4. Nutrition – Weight – 65Kg; Height – 5'1 BMI – 28kg/$m^2$
5. Pallor – Moderate
6. Cyanosis- Absent.
7. Jaundice- Absent
8. Clubbing – Absent
9 **. Oedema- Pitting edema scale**

Grade - 4

**Systematic Examination**: -

- Nervous system Higher function ------- Intelligence, Memory, Orientation within normal limits.

  Cranial Nerve Examination------ within normal limits

  Motor and sensory nerve --------- No abnormality detected

- Respiratory system Inspection --- No such abnormality seen, bilaterally symmetrical

  Palpation --- No such tenderness seen

  Percussion ----No such abnormalities seen

  Auscultation ---- Normal bronco-vesicular breath sound, no added sound heard.

- Cardiovascular system: - S1 S2 Audible, no murmur found.

- Musculoskeletal system: - Look ---- No such abnormality seen

  Feel ---- Rise in Temperature of both lower limbs

  Movement ---- Active and passive ---- within normal limits.

- Gastrointestinal system: - Inspection ---No such abnormality seen

  Palpation --- superficial palpation ----No such tenderness seen

  Deep Palpation ----- No Organomegaly seen

  Percussion ----no such abnormalities

  Auscultation ---- Intestinal peristaltic sound nor

**Vital Data** :-

1.Pulse Rate- 68/min

2.Respiration Rate- 18/min

3.Blood Pressure- 110/80 mmHg.

4.Temperature – 98.6 ℃

**Asthavidha Pariksha**

1. Nadi – Vata Kaphaja

2. Mutra- Frequency

   7-8 times/day; 3-4 times/night

   Appearance - turbid and frothy

3.Mala- 2times /day

4. Jihwa- Malavrit (coated)

5. Shabdha- Gambhira

6.Sparsha- Snigdha

7.Drik- Prakrit

8.Akriti- Madhayama

**Dashvidha Pariksha**

1. Prakriti- Vata-kaphaja

2. Vikriti- Vata dosha mainly and meda dhatu

3. Sara- Madhyama

4. Samahana- Madhyama

5. Satmaya- Madhyama

6. Satva- Madhyama

7. Pramana- Madhyama

8. Ahara Shakti

   i) Abhyaharana shakti – Madhyama

   ii) Jarana shakti - Madhyama

9.Vyayama Shakti- Madhyama

10. Vaya- Briddhaavstha

❖ **Diagnosis**: -

As per the symptoms patient was diagnosed as: -

➡ Ayurvedic Diagnosis – Prameha

Modern Diagnosis – Diabetic Nephropathy with clinical microalbuminiuria.

➡ Treatment Assessment Parameters

* Both subjective and objective criteria.

❖ **Nidan Of Prameha**

***"आस्यासुखं स्वप्नसुखं दधीनि ग्राम्यौदकानूपरसाः पयांसि । नवान्नपानं गुडवैकृतं च प्रमेहहेतुः कफकृच्च सर्वम् "***

- The ASAYASUKHA means who loves to be at a same place without any movement for long time
- The SWAPNASUKHA means as per arundatta commentary shyaana viddhi viparijita who sleeps at any time, excessive sleep or nidra hani (awakes a lot) [5]
- The Person who leads sedentary lifestyle, with diet of dairy products and products made up of Jaggery mainly which are kaphakarak Dravyas mainly having guru and snigdha guna.
- Here The term ***कफकृच्च*** Kapha -means kapha doshas aggravating dravya that is samaniya nidan and the letter ***cha*** means specific nidan which can aggravate doshas (Pitta, Vata) other than Kapha said By Vijayarakshit intrepretating Prameha is a **Kapha Pradhan tridosha vyadhi** [6]

Guru Ahara- Guru Ahara leading to abhisyandi that which leads to srotoavaradh mainly Rasavaha srotos by Acharya Sharangdhar

***"Picchalyat guruta dravya rudva rasavaha srotas yat gaurava tat"***

**Interpretation from Nidan**

1. **Alteration Of Agni-** The Kapha dushti leads to a state of Mandagni (i.e, hypo-functioning of the digestive fire/enzymes) which affect the process of digestion of food leading to synthesis of ama (toxin). The food further gets metabolic transformation by Bhutagni & Dhatvagni which are also altered. Thus, alteration of agni causes heterogenous changes of dhatu in Prameha leading to metabolic disorders in Diabetes mellitus
2. **Formation Of Ama** - the production of ama along with ahara rasa causes vitiation in the functions of Rasa dhatu. The other function of imparting nutrition for the formation of its subsequent dhatus chronologically is also hampered. As the improper rasa will not be able to impart the essence to the later dhatu i.e., Rakta needs for its physiological functioning. This scenario continues till Sukra & lastly Oja (strength or immunity) is also disrupted. As there is pathological dhatupaka there is less formation of prasad bhag and more formation of kitta bhaga.[7]

❖ **PurvaRupa: -**

*"खेदोऽङ्गगन्धः **शिथिलाङ्गता** च शय्यासनस्वप्नसुखे रतिश्च । हृन्नेत्रजिह्वाश्रवणोपदेहो **घनाङ्गता** केशनखातिवृद्धि*

*शीतप्रियत्वं गलतालुशोषो माधुर्यमास्ये **करपाददाहः** ....."*[8].

The interpretation is done only limited for the single case study

**Interpretation from Purvarupa**

1. **1.STHILIYA ANGATA AND GHANA ANGATA** – The Vitated ansha of kapha dosha guna i.e Guru, Snigdha, Picchila and Bahu & abadha meda (abadha means asamhata) i.e, meda dhatu both is excessively aggravated & altered where the srotoavrodh takes place,as mentioned by Madhava Nidan undergoes liquefaction & results in rise of its level in circulation causing body shtiliyata and ghanata.
2. **KARA PADAHA DAHA** – As the Vayu is aggravated in Prameha it takes pitta from amashaya to the periphery leading to kara pada daha

❖ **Samprapti:-**[9]

Nidan

⬇

Simultaneously vitiation of kapha predominant tridosha.

⬇ ⬇ ⬇

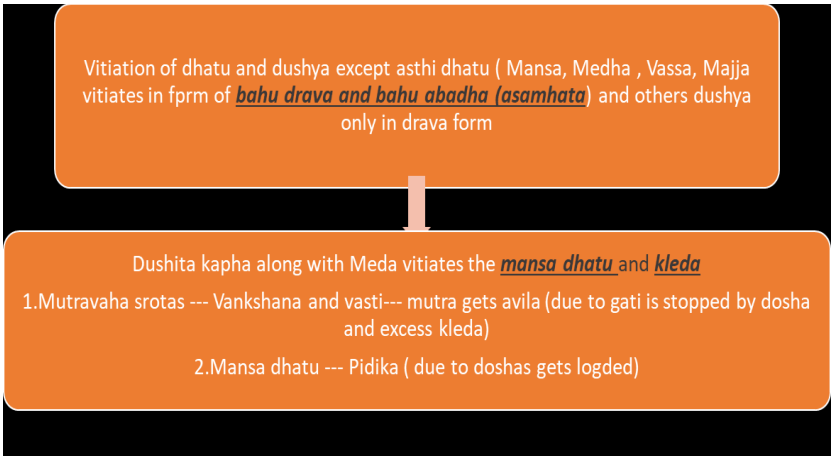
1.Kapha becomes Bahu drava

⬇

2.Pitta gets aggravated by ushna ahara which gets vitiated from kapha

⬇

3. Vata gets aggravated when kapha and pitta doshas are in Kshina Avstha.




The Subjective criteria and the Objective criteria:

| SUBJECTIVE CRITERIA | OBJECTIVE CRITERIA |
|---|---|
| 1. AVILA PHENA MUTRA<br>Frothy urine. | 1. FBS Fasting blood sugar level |
| **2.** PADA SOTHA<br>Swelling of both lower limbs<br>(As per pitting edema scale) | 2.PPBS Post prandial blood sugar level |
| 3. KARA PADA DAHA<br>Burning sensation in both upper and lower limbs | 3. Serum urea |
| | 4. Serum creatinine |
| | 5.Urine for spot ACR |

## ❖ Material and Method

Intervention: - Table 1

| SN | Medicines | Dosage | Duration |
|---|---|---|---|
| **1.** | Dasamula Kashayam with Trikatu | 20ml dasamula kashyam + 3gm Trikatu with equal amount of lukewarm water twice daily before Lunch and dinner | 3 months |
| **2.** | Nishaamaakiyadi yoga<br>i) Nisamalaki pow<br>ii) Gudmar pow<br>iii) Guduchi pow | i)Nisaamalaki pow-2gm<br>ii)Gudmar pow – 2gm<br>iii)Guduchi pow – 2gm<br>1 dose 6gm before food in morning and evening with lukewarm water | 3 months |
| **3.** | Gokshuradi Guggul | 2tabs after lunch and dinner with lukewarm water | 3 months |
| **4.** | Punnarvadi mandur | 2tabs after lunch and dinner with lukewarm water | 3 months |

Table 2

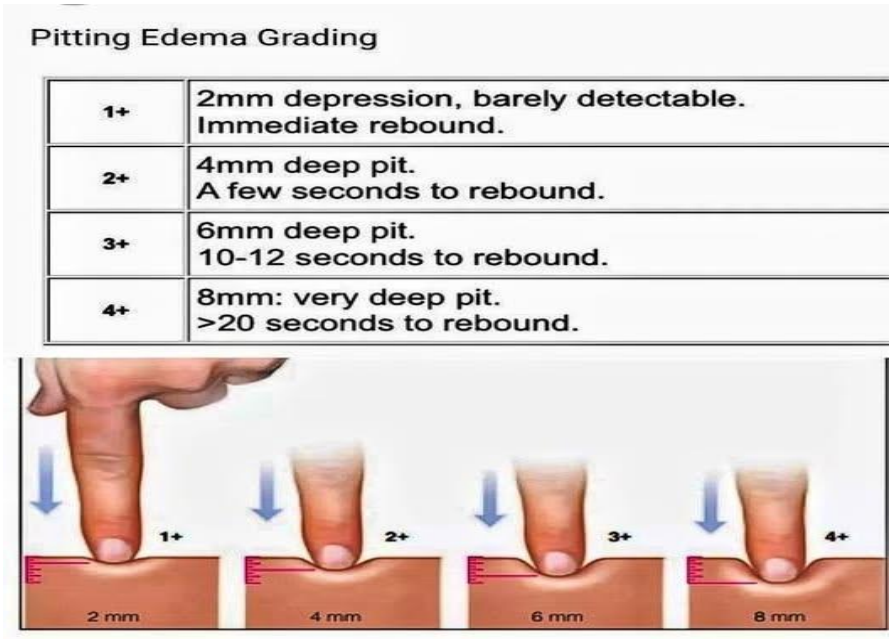
| SN | Pathya Ahara | Pathya Vihara |
|---|---|---|
| **1.** | Intake Of Moong Dal | Walking for 30mintues atleast |
| **2.** | Intake of barley with amalaki in breakfast | Yogaasanas<br>✓ Viparita Karini Asana<br>✓ Vakrasana<br>✓ Padmasana |

❖ Assessment Result of case

**1.Subjective criteria (Sign and Symptoms):-**

| SN | Subjective Criteria | Before Treatment | After Treatment | |
|---|---|---|---|---|
| | | | Midpoint | Endpoint |
| 1. | AVILA PHENA MUTRA<br>Frothy urine | ++ | + | **Absent** |
| 2. | PADA SOTHA<br>Swelling of both lower limbs<br>(As per pitting edema scale). | ++++ | +++ | + |
| 3. | KARA PADA DAHA<br>Burning sensation in both upper and lower limbs | ++ | + | **Absent** |

(+ Mild ; ++ Moderate ; ++++ Severe) ;




Pitting edema scale

**2.Objective criteria :-**

| SN | Objective Criteria | Before Treatment (Date-19.07.24) | After Treatment Midpoint | After Treatment Endpoint |
|---|---|---|---|---|
| **1.** | FBS Fasting blood sugar | 178mg/dl | 100mg/dl (Date-13.08.24) | 97 mg/dl (Date –22.02.25) |
| **2.** | PPBS Post prandial blood sugar | 366mg/dl | 165mg/dl (Date13.08.24) | 149mg/dl (Date- 22.02.25) |
| **3.** | Serum urea | 28mg/dl | 28mg/dl | 28mg/dl (Date-19.07.24) |
| **4.** | Serum creatinine | 0.96mg/dl | 0.96mg/dl | 0.96mg/dl (Date-19.07.24) |
| **5.** | Urine for spot ACR | 1145.8ug/mg | 625.4ug/mg (Date-16.08.24) | 311.4ug/mg Date – 30.10.24 |

## ❖ Discussion: -

➢ Prameha refers to Prabuta Avila Mutrata which includes all kind of urinary disorders. Srotos involved in Prameha are Medavaha Srotos and Mutravaha Srotos with their Srotomula Vrikka Vapavahan and Vasti Vanksahna respectively.[10]

i. **Medavaha srotos** mula Vrikka (Kidney) is originated from sara bhaga of rakta and meda, as mentioned by Acharya Sushruta Vrikka is formed by **Raktameda Prasad Bhaga** which is the essence of Rakta and Meda,so it implies that there is impairment of rakta and meda dhatu in vikriti Avastha of vrikka.[11]

ii. **Mutravaha Srotos** is involved here as Mutra is the kitta bhaga of the sharir. the normal function of mutra is kledhavahan which means excretion of kleda through mutra [12]. In Prameha vitatiated meda leads to excess formation of kleda causes obstruction of mutravaha srotos due to its guru guna that can be correlate with the microvascular changes of renal artery in Diabetic Nephropathy.

The Excretory function of urinary system helps in excretion of metabolic waste products (blood urea, creatinine, proteinuria, disorders in appearance of urine).

- **Prameha and Sotha**

***रक्तपित्तकफान् वायुर्दुष्टो दुष्टान् बहिःसिरा। नीत्वा रुद्धगतिस्तैर्हि कुर्यात्त्वमांससंश्रयम् उत्सेधं संहतं शोथं तमाहुर्निचयादतः (Madhav nidan ) [13]***

i. In context of sotha it is mentioned that the vitiated tridoshas along with rakta gets lodged in the bahisira (superficial vein) and causes obstruction within the srotos leads to utsedha (swelling) within twacha and mansa.

ii. In Prameha Chikitsasthan

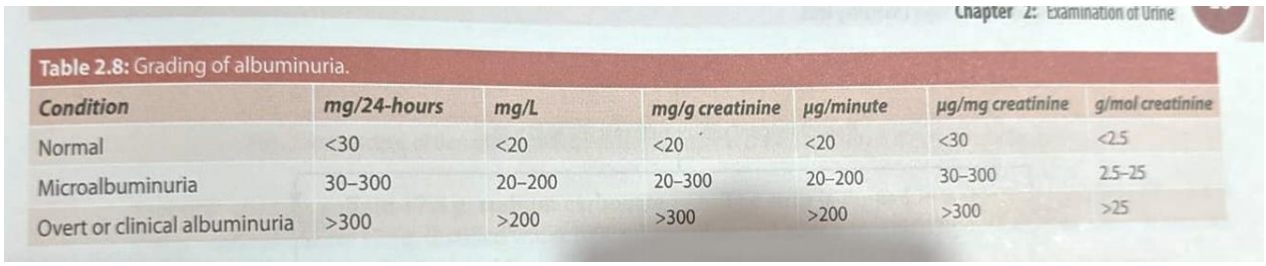
Lasika (Twacha mansa antra ambu is called LASIKA) [14]

Lasika refers to udak that is the fluid which is present in between the twacha and mamsa which indicates the subcutaneous space. In Prameha there is involvement of bahudrava shlesma[15] which denotes the aggravation of drava guna as kapha dosha posses apa guna [16] said in vijayrakshit tikka further leading to aggravation of lasika and accumulation within the subcutaneous space. Moreover, excess formation of kleda leads to obstruction of srotos which is a causative factor for development of sotha.

- Diabetic nephropathy is the commonest and second cause in renal disease. The earliest sign of diabetic nephropathy is microalbuminuria which is defined as urinary excretion of 30-300 mg/24-hours (or 2-20 mg/dL) of albumin in urine and more than 300mg/24-hrs is considered as clinical microalbuminuria.

Significance of Microalbuminuria

i. It is considered as the earliest sign of renal damage in diabetes mellitus (diabetic nephropathy).
ii. It indicates increase in capillary permeability to albumin and denotes microvascular disease.
iii. Microalbuminuria precedes the development of diabetic nephropathy by a few years.
iii. If blood glucose level and hypertension are tightly controlled at this stage by aggressive treatment then progression to irreversible renal disease and subsequent renal failure can be delayed or prevented.[17]



Chapter 2: Examination of Urine

**Table 2.8:** Grading of albuminuria.

| Condition | mg/24-hours | mg/L | mg/g creatinine | µg/minute | µg/mg creatinine | g/mol creatinine |
|---|---|---|---|---|---|---|
| Normal | <30 | <20 | <20 | <20 | <30 | <2.5 |
| Microalbuminuria | 30–300 | 20–200 | 20–300 | 20–200 | 30–300 | 2.5–25 |
| Overt or clinical albuminuria | >300 | >200 | >300 | >200 | >300 | >25 |

**Medications :-**

- Dashamula kashya: -It is described under sothahara mahakshaya according to charak samhita[18] it is tridoshahara and causes amapachana which prevents the obstruction of Srotos.[19]

Trikatu: - It is depaniya in nature which ignites the jatharagni along with bhutaagni and dhatuaagni also which leads to proper formation of dhatu. It is indicated in Meha Kapha and meda dushti. [20] Trikatu is considered as a potent hypolipidemic agent that helps to reduce atherosclerosis which supports the srotoshodhan property of this combined drug. [21]

- Nishaamalakiyadi yoga
(Nisa pow-1gm, Amalaki pow – 1gm.; Guduchi pow – 2gm; Gudmar pow -2gm;).

As Nisa Amalaki is decribed in Prameha Chikitsa and Guduchi is Described in Ashtang Hridya In Prameha Chikitsa as the root cause of clinical microalbuminuria is Prameha, leading to Sotha i.e Diabetic Nephropathy so we have planned to decrease the nidanarthkar roga of Sotha in these Prameha case.[22]

i. Guduchi having the property of katu ,tikta, Kashaya rasa and Madhura vipaka with rasayana affect. It causes agnideepan and alleviates tridoshas and ama. So, it is indicated in daha and meha. [23]

ii. Meshashringi possess the quality of tikta rasa with katu vipak and rukshya guna in nature. It also Pacifies the pitta and kapha dosha and specially indicated in kaphaja prameha which is also beneficial in phenameha i.e (frothy urine) that is a type of kaphaja prameha.[24]

iii. Amalaki with having shadrasa property and Madhura vipaka in nature. The properties of amalaki are same as of haritaki where it is indicated in sotha and prameha as this present case study the patient is suffering from both diseases, but the special attribute of amalaki is possessing in pacification of vitiated kapha dosha due to its rukshya guna and kashya rasa also the patient had the feature of phenamutrata which comes under kaphaja pradhan meha, so here it directly helps in phenameha with having rasayan property. [25]

iv. As Haridra possesses the katu and tikta rasa with ruksya guna it pacifies kapha and pitta dosha. It is indicated in prameha and sotha . In this case study patient was suffering from meha with pada sotha so haridra was drug of choice due to its rukshya guna in nature.[26]

- Punnnarva mandura - According to bhaisajya ratnavali this formulation is indicated in Sotha which remains beneficial in this case. Here the main drug is Punnarnava . the synonyms of this drug is Sothaagni which implies its main action.[27]

- Gokshuradi guggulu – As per sharangdhar samhita it is specially indicated in prameha. Since Gokshura is the main ingredient of this formuation which has the property of vastishodhan that is specially indicated in this case as the patient is having the feature of avila Mutrata moreover it is indicated in prameha. [28]

## Conclusion:

This study demonstrates how prameha was managed using these medications and the prameha was significantly reduced and there was remarkable improvement in clinical microalbuminuria value.

The clinical microalbuminuria value ranged from 1145.8ug/dl was reduced to 625.4ug/dl and later 311.4ug/dl within 3months of duration.

The FBS value from 178mg/dl reduced to 97 mg/dl and the PPBS value from 366mg/dl was reduced to 149mg/dl within 7months.

The irreversible renal disease and subsequent renal failure can be delayed or prevented through the following medicaments.

We need to study more case about microalbuminuria and with proper diet and exercise.

**Referance :-**


1. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Sutrasthan/Chp28 /sholka 15/Page -179.
2. Y.T Acharya etal / Sushrut samhita – Dalhan tikka/Reprint Edn 2012/ Chaukhambha Sanskrit Sansthan /Nidansthan/Chp6 /sholka 6/Page -290.
3. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Nidansthan/Chp4 /sholka 10,25,39/Page -213,214,215.
4. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Nidansthan/Chp4 /sholka 7 /Page -213.
5. A.M Kunte/ Ashtang Hridya – Arundatti commentary/ Edn 1880/ Ganpat Krishnaji's Press Propeietor atmaram Kanoba/Nidansthan/Chp10 /sholka 2-3 /Page -767
6. Y.Upadhaya/Madhav Nidan-Madhukosa tikka/Vol 2/Reprint Edn -2019/Chaukambha Prakashan/Uttradha/Chp-33/Shloka 1/Page-2.
7. Y.Upadhaya/Madhav Nidan- Madhukosa tikka /Vol 1/Reprint Edn -2019/Chaukambha Prakashan/Purvaadha/Chp-2/Shloka 66-73/Page-151.
8. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Chikitsasthan/Chp6 /sholka 13-14/Page -446.
9. i. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Nidansthan/Chp4 /sholka 8/Page -213
   ii. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Chikitsasthan/Chp6 /sholka-5-6/Page -445.
10. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Vimansthan/Chp5 /sholka 8/Page -250-251.
11. Y.T Acharya etal / Sushrut samhita – Dalhan tikka/Reprint Edn 2012/ Chaukhamba Sanskrit Sansthan /Sharirsthan/Chp4 /sholka 31/Page -358.
12. B.Tripathi/ Ashtanga Hridayam/Reprint Edn 2015/ Chaukhamba Sanskrit Pratishthan/ Sutrasthan/Chp11 /sholka 4/Page -161.
13. Y.Upadhaya/Madhav Nidan-Madhukosa tikka/Vol 2/Reprint Edn -2019/Chaukambha Prakashan/Uttradha/Chp-36/Shloka 1/Page-57.
14. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Nidansthan/Chp4 /sholka 37/Page -215.
15. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Nidansthan/Chp4 /sholka 6/Page -212.
16. Y.Upadhaya/Madhav Nidan- Madhukosa tikka /Vol 1/Reprint Edn -2019/Chaukambha Prakashan/Purvaadha/Chp-3/Shloka 4/Page-161.
17. S.M.Kawathalkar/Essentials of Clinical Pathology/Reprint Edn-2024/Jaypee Brothers Medical Publishers.(P) Ltd./Chpt-2/Page -25.
18. i. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Sutrasthan/Chp4 /sholka 16/Page -34
19. Y.T Acharya etal / Sushrut samhita – Dalhan tikka/Reprint Edn 2012/ Chaukhambha Sanskrit Sansthan /Sutrasthan/Chp38 /sholka 71/Page -169.
20. Prof K.C Chunekar/Bhavprakasha/Vol 1/Reprint Edn-2015/Chaukhambha Orientalia/Haritakiyadi varga/Sholka-62-63/Page-139.
21. https://pubmed.ncbi.nlm.nih.gov/15742354/
22. Y.Trikamji Acharya/ Charak samhita – Chakrapani tikka/Reprint Edn 2020/ Chaukhambha Surbharati Prakashan/Nidansthan/Chp8 /sholka 16 /Page -227.
23. Prof K.C Chunekar/Bhavprakasha/Vol 1/Reprint Edn-2015/Chaukhambha Orientalia/Guduchyadi varga /Sholka-8-10.
24. Prof K.C Chunekar/Bhavprakasha/Vol 1/Reprint Edn-2015/Chaukhambha Orientalia/Guduchyadi varga /Sholka-254-255/Page-297.
25. Prof K.C Chunekar/Bhavprakasha/Vol 1/Reprint Edn-2015/Chaukhambha Orientalia/Haritakiyadi varga/sholka 40-41/Page-135.
26. Prof K.C Chunekar/Bhavprakasha/Vol 1/Reprint Edn-2015/Chaukhambha Orientalia/Haritakiyadi varga/sholka 116-117/Page-175.
27. A.D Shastri/Bhaisajya Ratnavali/Reprint Edn-2019/Chaukhambha Prakashan/Chapt-12/Sholka-65-66/Page- 381.

**28.** B.tripathi/Sharangdhar samhita/Reprint-2017/Chaukhambha Surbharati Prakashan/Chap-7/Sholka87/Page-137.

Reports :- Before Treatment

**Dr. Roy's Diagnostic & Imaging Centre Pvt. Ltd.**
CIN : U85100WB2010PTC141879 E-mail : drdic1967@yahoo.in
(BORN TO CARE SINCE 1967)
Address : 295/1, A. P. C. Road, Kolkata - 9 (Opp. Rajabazar Science College),
Mobile : 6291405356, 9038085917 to 20, ✆ : 6291405356, Phone : (033) 2352 5364, 2352 5391

Patient Name : [redacted]
Patient Ph No:
ient ID No: CASE/20240719/000023
ferred By : [redacted]

Age : 70 Years Sex : Female
Collection Date : 19/07/2024 08:37
Reporting Date : 19/07/2024 14:36

Page 1

TEST REPORT

TEST DONE : URINE FOR ALBUMIN CREATININE RATIO (ACR)

SPECIMEN : (URINE SAMPLE)

| TEST DESCRIPTION | | VALUE | UNIT |
|---|---|---|---|
| URINARY MICRO-ALBUMIN | : | 355.2 | mg/L. |

REFERENCE RANGE :-
NORMAL : LESS THAN 25 mg/L.

| TEST DESCRIPTION | | VALUE | UNIT |
|---|---|---|---|
| URINARY CREATININE | : | 31 | mg/dl. |

REFERENCE RANGE :-
MALE : 39 - 259 mg/dl.
FEMALE : 28 - 217 mg/dl.

| TEST DESCRIPTION | | VALUE | UNIT |
|---|---|---|---|
| URI. ALBUMIN/CREATININE RATIO (UA/C) | : | 1145.8 | µg/mg of creatinine. |

REFERENCE RANGE :-
NORMAL : 0 - 30 µg/mg of creatinine.
MICRO ALBUMINURIA : 30 - 300 µg/mg of creatinine.
CLINICAL ALBUMINURIA : > 300 µg/mg of creatinine.

*Not under the NABL scope.

END OF REPORT

ACR value

**Dr. Roy's Diagnostic & Imaging Centre Pvt. Ltd.**
CIN : U85100WB2010PTC141879 E-mail : drdic1967@yahoo.in
(BORN TO CARE SINCE 1967)
Address : 295/1, A. P. C. Road, Kolkata - 9 (Opp. Rajabazar Science College),
Mobile 6291405356, 9038085917 to 20, ✆ : 6291405356, Phone : (033) 2352 5364, 2352 5391
MC - 6455

ent Name : [redacted]
ent Ph No:
ent ID No: CASE/20240719/000023
erred By : [redacted]

C0364883

Age : 70 Years Sex : Female
Collection Date : 19/07/2024 8:52
Reporting Date : 19/07/2024 14:36

TEST REPORT Page 1 of 1

| TEST NAME | RESULTS | UNITS | BIO. REFERENCE RANGE |
|---|---|---|---|
| PLASMA GLUCOSE (FASTING) (HEXOKINASE) | 178 | mg/dl | 74 - 106 |
| PLASMA GLUCOSE (POST PRANDIAL) (HEXOKINASE) | 366 | mg/dl | 70 - 145 |
| UREA, CREATININE | | | |
| UREA , SERUM (GLDH) | 28 | mg/dl | 17-43 |
| CREATININE, SERUM (ENZYMATIC) | 0.96 | mg/dl | 0.60-1.10 |

Technology: BECKMAN COULTER AU480

All reference ranges are age and sex matched. Reference limits mentioned herein are in accrodance with the literature provided along with the kit which may change in Chemistry/Kit.

~~ End of Report ~~

FBS AND PPBS value

➢ **Midpoint Progress :-**

**Dr. Roy's Diagnostic & Imaging Centre Pvt. Ltd.**

CIN : U85100WB2010PTC141879 (BORN TO CARE SINCE 1967) E-mail drdic1967@yahoo.in

Address : 295/1, A. P. C. Road, Kolkata - 9 (Opp. Rajabazar Science College),
Mobile 6291405356, 9038085917 to 20, 6291405356. Phone (033) 2352 5364, 2352 5391

P ent Name : [redacted]
ient Ph No: 9748813920
t ID No: CASE/20240816/000073
rred By : [redacted]

Age : 71 Years Sex : Female
Collection Date : 16/08/2024 13:15
Reporting Date : 16/08/2024 14:48

Page 1 of 1

**TEST REPORT**

TEST DONE : URINE FOR ALBUMIN CREATININE RATIO (ACR)

SPECIMEN : (URINE SAMPLE)

| TEST DESCRIPTION | | VALUE | UNIT |
|---|---|---|---|
| URINARY MICRO-ALBUMIN | : | 713 | mg/L. |

REFERENCE RANGE :-
NORMAL : LESS THAN 25 mg/L.

| TEST DESCRIPTION | | VALUE | UNIT |
|---|---|---|---|
| URINARY CREATININE | : | 114 | mg/dl. |

REFERENCE RANGE :-
MALE : 39 - 259 mg/dl.
FEMALE : 28 - 217 mg/dl.

| TEST DESCRIPTION | | VALUE | UNIT |
|---|---|---|---|
| URI. ALBUMIN/CREATININE RATIO (UA/C) | : | 625.4 | µg/mg of creatinine. |

REFERENCE RANGE :-
NORMAL : 0 - 30 µg/mg of creatinine.
MICRO ALBUMINURIA : 30 - 300 µg/mg of creatinine.
CLINICAL ALBUMINURIA : > 300 µg/mg of creatinine.

*Not under the NABL scope.

END OF REPORT

ACR Value

(11)

**GOVERNMENT OF WEST BENGAL**
Institute of Post Graduate Ayurvedic Education & Research
at SHYAMADAS VAIDYA SHASTRA PITH
294/3/1, A.P.C. Road, Kolkata - 700 009
Phone : (033) 2350 4159

Bed NO- 06
R|N- 565/24

**BIOCHEMISTRY**

Date 13/08/2024

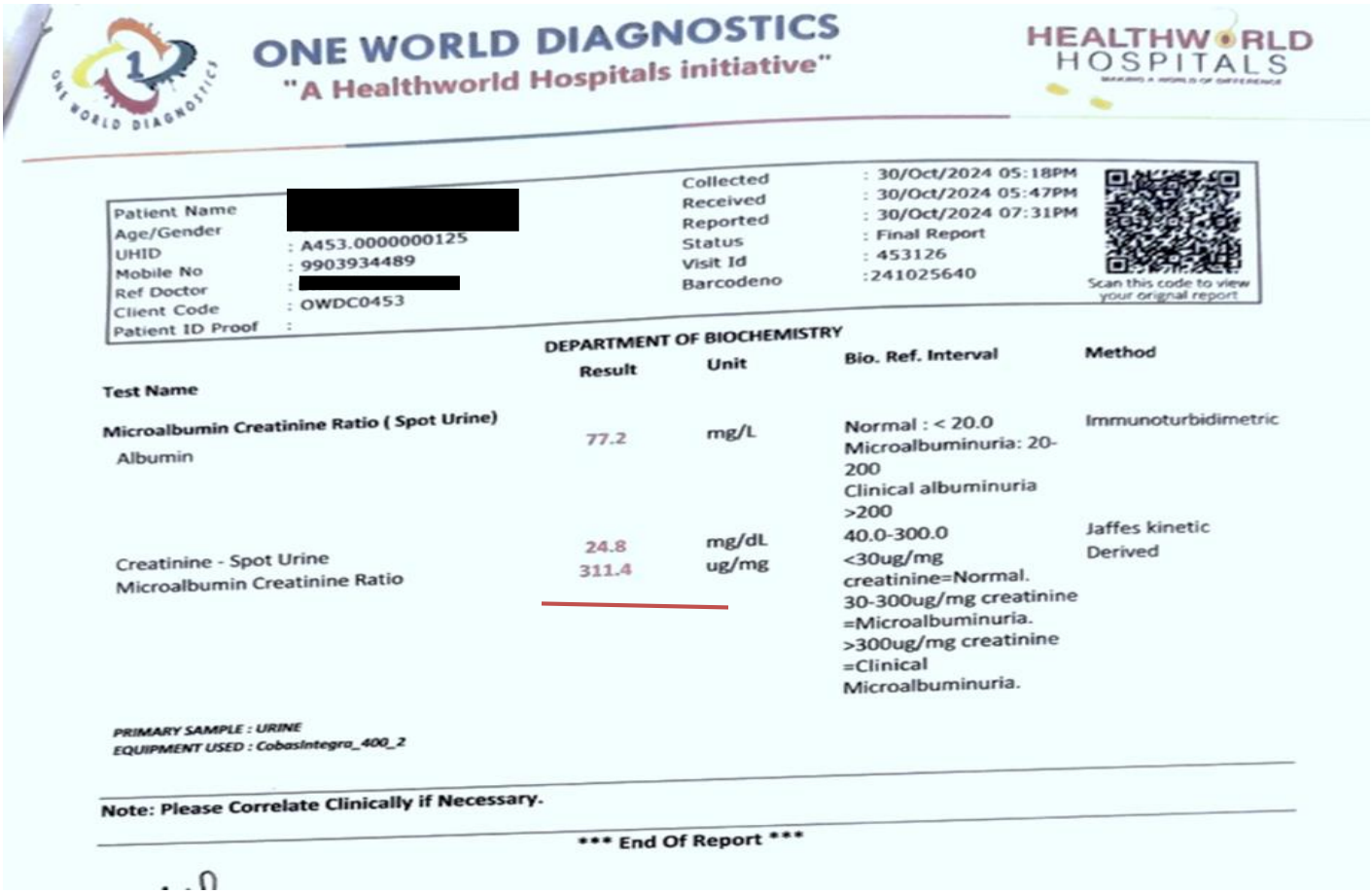
Patient's Name Champa Shaw 71yr F Referred by Dr. M. Majumder

| | | Normal | | | Normal |
|---|---|---|---|---|---|
| GLUCOSE | Serum / Plasma | | BILIRUBIN | mg.dl | (0.2 - 0.8) |
| (Fasting) 102 | mgms 100ml. | (70-110) | Conjugated | mg.dl | |
| (Post prandial) 165 | .....mgms 100ml. | (<140) | Un Conjugated | mg.dl | |
| Random | | | TOTAL PROTEINS | g/100ml. | (5.7 - 7.9) |
| (2 hrs. after meal 100.75.50 gms. Glucose) (Enzymatic) ★ | | | Albumin | g/100ml. | (2.8 - 4.8) |
| UREA | mgms. 100ml. | (20-40) | Globulin | g/100ml. | (2.0-3.5) |
| ★CREATININE | mgms. 100ml. | (0.5-1.5) | A:G Ratio | Above one | |
| URIC ACID | mgms. 100ml. | (2.4-6) | S.G.O.T. | u/ml. | (Upto-40) |
| CHOLESTEROL | mgms. 100ml. | (150-250) | S.G.P.T. | u/ml. | (Upto-35) |
| H.D.L. CHOLESTEROL | mgms. % | (45 to 85) | ALKALINE PHOSPHATASE | KA Units | (4-11KA Units) |
| (Risk factor if below 35 mgms. %) | | | | | |
| L.D.L. CHOLESTEROL | mgms. % | (65 to 175) | | | |
| V.L.D.L. CHOLESTEROL | mgms. % | (20 to 25) | | | |
| TRIGLYCERIDE | mgms./100ml. | (70 - 160) | | | |
| R. A. Factor | | | | | |
| A.S.O. Titre | I. U./Litre | | | | |
| C.R.P. Level | mg./ Litre | | | | |

Pathologist / Biochemist

➢ **Endpoint Result :-**

ACR value



ONE WORLD DIAGNOSTICS
"A Healthworld Hospitals initiative"
HEALTHWORLD HOSPITALS

Patient Name : [redacted]
Age/Gender
UHID : A453.0000000125
Mobile No : 9903934489
Ref Doctor : [redacted]
Client Code : OWDC0453
Patient ID Proof :

Collected : 30/Oct/2024 05:18PM
Received : 30/Oct/2024 05:47PM
Reported : 30/Oct/2024 07:31PM
Status : Final Report
Visit Id : 453126
Barcodeno : 241025640

Scan this code to view your orignal report

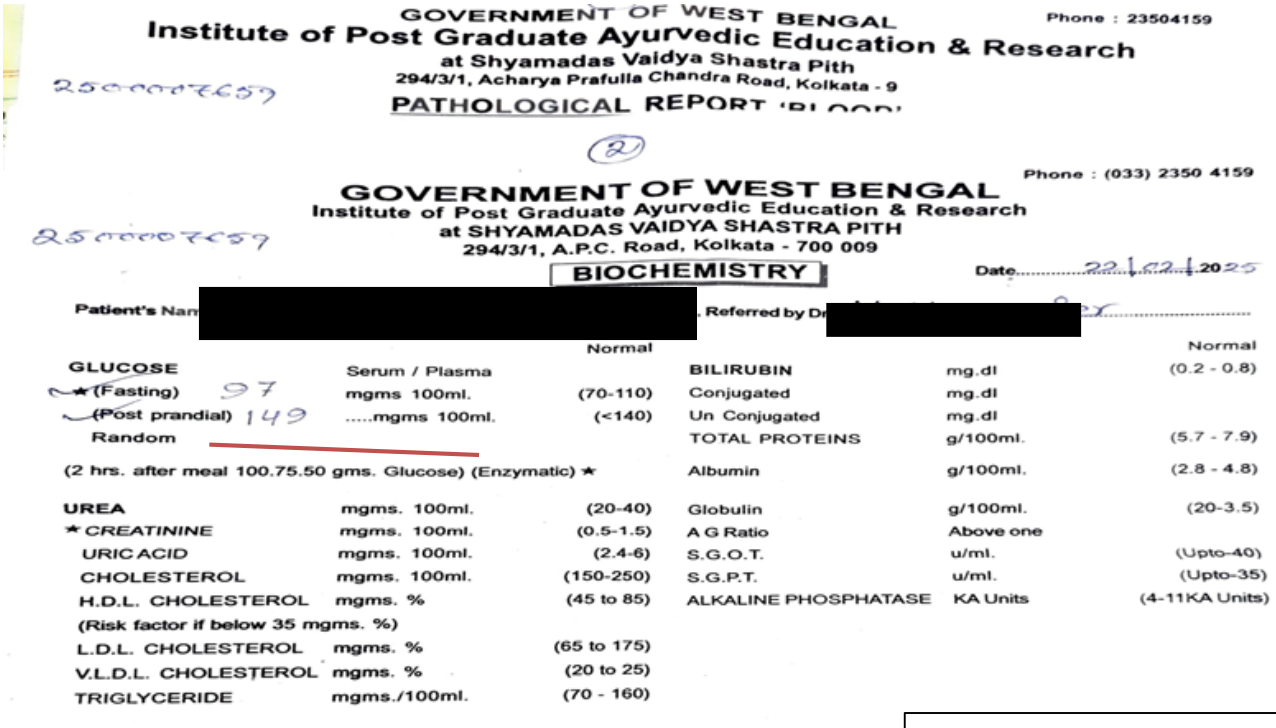
DEPARTMENT OF BIOCHEMISTRY

| Test Name | Result | Unit | Bio. Ref. Interval | Method |
|---|---|---|---|---|
| **Microalbumin Creatinine Ratio ( Spot Urine)** | | | | |
| Albumin | 77.2 | mg/L | Normal : < 20.0<br>Microalbuminuria: 20-200<br>Clinical albuminuria >200 | Immunoturbidimetric |
| Creatinine - Spot Urine | 24.8 | mg/dL | 40.0-300.0 | Jaffes kinetic |
| Microalbumin Creatinine Ratio | 311.4 | ug/mg | <30ug/mg creatinine=Normal.<br>30-300ug/mg creatinine =Microalbuminuria.<br>>300ug/mg creatinine =Clinical Microalbuminuria. | Derived |

*PRIMARY SAMPLE : URINE*
*EQUIPMENT USED : Cobasintegra_400_2*

**Note: Please Correlate Clinically if Necessary.**

*** End Of Report ***



GOVERNMENT OF WEST BENGAL
Institute of Post Graduate Ayurvedic Education & Research
at Shyamadas Vaidya Shastra Pith
294/3/1, Acharya Prafulla Chandra Road, Kolkata - 9
Phone : 23504159
PATHOLOGICAL REPORT 'BLOOD'

(2)

GOVERNMENT OF WEST BENGAL
Institute of Post Graduate Ayurvedic Education & Research
at SHYAMADAS VAIDYA SHASTRA PITH
294/3/1, A.P.C. Road, Kolkata - 700 009
Phone : (033) 2350 4159

BIOCHEMISTRY

Date 22/02/2025

Patient's Name [redacted] Referred by Dr [redacted]

| | | Normal | | | Normal |
|---|---|---|---|---|---|
| GLUCOSE | Serum / Plasma | | BILIRUBIN | mg.dl | (0.2 - 0.8) |
| ★(Fasting) 97 | mgms 100ml. | (70-110) | Conjugated | mg.dl | |
| (Post prandial) 149 | .....mgms 100ml. | (<140) | Un Conjugated | mg.dl | |
| Random | | | TOTAL PROTEINS | g/100ml. | (5.7 - 7.9) |
| (2 hrs. after meal 100.75.50 gms. Glucose) (Enzymatic) ★ | | | Albumin | g/100ml. | (2.8 - 4.8) |
| UREA | mgms. 100ml. | (20-40) | Globulin | g/100ml. | (20-3.5) |
| ★ CREATININE | mgms. 100ml. | (0.5-1.5) | A G Ratio | Above one | |
| URIC ACID | mgms. 100ml. | (2.4-6) | S.G.O.T. | u/ml. | (Upto-40) |
| CHOLESTEROL | mgms. 100ml. | (150-250) | S.G.P.T. | u/ml. | (Upto-35) |
| H.D.L. CHOLESTEROL | mgms. % | (45 to 85) | ALKALINE PHOSPHATASE | KA Units | (4-11KA Units) |
| (Risk factor if below 35 mgms. %) | | | | | |
| L.D.L. CHOLESTEROL | mgms. % | (65 to 175) | | | |
| V.L.D.L. CHOLESTEROL | mgms. % | (20 to 25) | | | |
| TRIGLYCERIDE | mgms./100ml. | (70 - 160) | | | |

FBS AND PPBS VALUE