

Date: 15.07.2025

To,
The Manager
Listing Compliance Department
National Stock Exchange of India Limited
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Bandra (East), Mumbai-400051

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Subject: Intimation under Regulation 30 of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 – Publication of Research Articles.

Dear Sir/Madam,

Pursuant to Regulation 30 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, we wish to inform you that the following Research and Review Articles have been authored by medical professionals associated with **Jeena Sikho Lifecare Limited**, including our Managing Director, senior consultants, and Ayurvedic experts.

These publications underscore the Company's continued commitment to advancing Ayurvedic research and promoting evidence-based clinical practices. The details of the articles are as follows:

S. No.	Type	Name
1.	Research Article	Accuracy In the Diagnosis of Diabetes Mellitus with Speedy Reversal Through Ayurvedic Management for Prameha Vyadhi: A Case Study of Asymptomatic Diabetic Patient
2.	Research Article	The Great Revert of Uncontrolled Type 2 Diabetes Mellitus with Diabetic Neuropathy by Ayurvedic Intervention: A Case Study Relating Topittaj Prameha - Subtype Haridra Meha

The above-mentioned articles have been co-authored by **Acharya Manish Grover Ji (Managing Director)** along with the following medical professionals associated with the Company:

Dr. Gitika Chaudhary, Dr. Richa, Dr. Smita Sanjeev Nilamwar, and Dr. Himanshu Chawla.

JEENA SIKHO LIFECARE LIMITED

120+ AYURVEDA CLINICS & HOSPITALS | FREEDOM FROM 2D DISEASES & DRUGS

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Punjab-140604, 01762-513185
CIN NO.: L52601PB2017PLC046545

Corporate Office Address:

B-26, Opp. Metro Pillar No. 223, Rohtak Road,
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Copies of the articles are enclosed as *Annexures A and B* for your records.

This is for your kind information and record.

Thanking you,
Yours faithfully,

For Jeena Sikho Lifecare Limited

Manish Grover
Managing Director
DIN: 07557886
Place: Zirakpur, Punjab
Date: 15.07.2025

JEENA SIKHO LIFECARE LIMITED

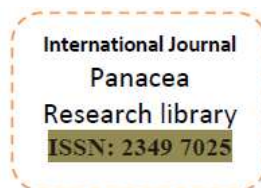
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Original Research Article

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ACCURACY IN THE DIAGNOSIS OF DIABETES MELLITUS WITH SPEEDY REVERSAL THROUGH *AYURVEDIC* MANAGEMENT FOR *PRAMEHA VYADHI*: A CASE STUDY OF ASYMPTOMATIC DIABETIC PATIENT

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ABSTRACT:

Diabetes mellitus is one of the most leading causes of morbidity and mortality worldwide. It mostly affecting developed countries. It is a complicated disease in itself to treat and if not diagnosed and treated early then it can cause serious complications like diabetic neuropathy, retinopathy, gangrene etc. Diabetes can be correlate with *Prameha* in *ayurveda*. *Ayurveda* says that *prameha* involves *Dosha-dushya sangraha* i.e. it is a multifactor pathogenic disorder. In both modern science and *ayurveda* etiological factors mentioned are almost similar like obesity (*Stholya*), sedentary life style (*akriyayam jayate*), sweet and dairy products (*guda* and *dadhi*) etc. This article is presenting a case of male patient 39-year-old who had a history of chronic alcoholism, which is one of the causative factors of *prameha* according to *ayurveda*. He visited to Jeena Sikho Life Care Limited Clinic, Karol Bagh, New Delhi on 11/09/2024. He was having complaints of general body weakness and polyphagia. He underwent for HbA1c investigation. After diagnosis, *ayurvedic* management was started which included oral medicines, diet recommendations and healthy lifestyle changes. Accuracy in diagnosis helped to reverse the disease speedily within a month.

Key words: Diabetes mellitus, *Prameha*, Polyphagia, HbA1c, *Ayurvedic* management, Diet

INTRODUCTION:

Diabetes is a complex metabolic disorder. It is a most leading factor of death, not only in India but also in all over world especially in developed and developing countries due to their sedentary and unhealthy life style. Diabetes mellitus is a set of symptoms of impaired carbohydrate, fat and protein metabolism caused by either lack of insulin secretion or decreased sensitivity of the tissues to insulin. There are two general types of diabetes mellitus:

1. **Type I diabetes**, also called insulin-dependent diabetes mellitus (IDDM) and is caused by lack of insulin secretion.
2. **Type II diabetes**, also called non-insulin-dependent diabetes mellitus (NIDDM), is initially caused by decreased sensitivity of target tissues to the metabolic effect of insulin. This reduced sensitivity to insulin is often called insulin resistance.

In both types of diabetes mellitus, metabolism of all the main foodstuffs is altered. The basic effect of insulin lacks or insulin resistance on glucose metabolism is, to prevent the efficient uptake and utilization of glucose by most of the cells of the body, except those of the brain. As a result, blood glucose concentration increases, cell utilization of glucose falls to lower increasingly, and utilization of fats and proteins increases.^[1]

In *ayurveda* diabetes is mentioned as *Prameha vyadhi* in all *Ayurvedic Samhita's* (text books). *Nirukti* means literal meaning of *Prameha* is "**Pra + Miha Ksharane**". *Pra* denotes *prakarshen* that means frequently, *Miha* means via *Mutra* (through urine) and *Ksharane* means *dhatu ksharan* (emission of glucose).^[2] *Prabhuta mutrata*^[2] or *Avila Prabhuta mutrata*^[3] is the main symptom of *prameha* mentioned by *acharya's*. It means that excessive urination or excessive turbid urination is a key symptom for diagnosis of diabetes. *Acharya Sushruta* classified *Prameha* into 2 types.^[4] *Sushrut chikitsa sthan adhyaya 11 prameha chikitsa*

1. **Sahaj prameha** – It is hereditary type.
2. **Apathya nimittaja prameha** – It occurs due to unwholesome lifestyle. This second type again classified into 3 types and is *Vataja prameha*, *Pittaja prameha* and *Kaphaja prameha*.

This presenting article is of a male patient of 39 year old came to JEENA SIKHO LIFE CARE LIMITED CLINIC, KAROL BAGH, NEW DELHI on 11/09/2024. It was found that he came with asymptomatic phase of *Prameha* (Diabetes). Because he had only two chief complaints, general body weakness and increased hunger. Seeing to his alcoholic history he was advised to

investigate for HbA1c. His reports showed positive reading for diabetes. On the basis of *ayurvedic* examination and history he was diagnosed as *Madhumeha (Vataja prameha type)*. His treatment was started with *ayurvedic* combinations, diet and healthy lifestyle changes. After one month of treatment, his increased HbA1c shifted to normal range. But still the treatment was continued for next one month to prevent diabetes from reoccurrence and to boost the immunity.

CASE REPORT:

This article is about a male patient of age 39 years visited to JEENA SIKHO LIFE CARE LIMITED CLINIC, KAROL BAGH, NEW DELHI on 11/09/2024. He had chief complaints as follows –

c/o

- General body weakness – since 2 years
- Lower backache
- Appetite – increased

After knowing symptoms his history was taken and it was followed by general and *ayurvedic* examination to understand the root cause of above symptoms and to reach the diagnosis for further line of treatment.

- **Medical history** – Not applicable
- **Disease history** – Not applicable
- **Surgical or procedure history** – Operated piles 2 year ago (Haemorrhoidectomy)
- **Addiction history** - Chronic alcoholism
- **Family history** – Not applicable

General examination on the 1st day is given in table number 1 and parameters of *Ashtavidh parikshan* on the 1st day are mentioned in table number 2 as follows.

Table no. 1 General examination

Parameters	Remark
Blood Pressure	140/90 mm of Hg
Pulse	90/min
Weight	76.65 kg

Table no. 2 Ashtavidh parikshan

Parameters	Remark
Nadi (Pulse)	<i>Pitta Vataj</i>
Mala (Stool)	<i>Avikrita (clear)</i>
Mutra (Urine)	<i>Ishatpeeta (Normal)</i>
Jivha (Tongue)	<i>Saam (White coating)</i>
Shabda (Pronunciation)	<i>Spashta (clear)</i>
Sparsh (Touch)	<i>Anushna Sheeta</i>
Drika (Eyes)	<i>Prakrita</i>
Aakriti (physique)	<i>Madhyam (average)</i>

Laboratory reports: As patient had symptom of polyphagia (increased appetite) and general body weakness, as well as he had history of chronic alcoholism, he was advised to investigate for HbA1c. He was investigated on the next day and reading is as given below:

Table no 3. Biochemistry report

Test description	12/09/2024 (Day 1)	Reference range
HbA1c	9.8 %	4.0 – 6.0 %
Estimated average glucose	235 mg/Dl	90 – 120 mg/dL

Diagnosis: Subsequent to above procedures of history, examination and investigation, on the basis of all parameters this case was diagnosed as **Madhumeha (Vataja Prameha)**

AYURVEDIC MANAGEMENT:

It does include, not only the medicines but also *Nidan parivarjan* (avoiding causative factors), *Pathya-apathya* and diet. In this case also patient was suggested to avoid alcohol. Thereafter *pathya- apathya* and diet plan was as like below:

Pathya-Apathya Aahar-Vihar:

He followed all the daily regimens advised to him, as mentioned in table no. 4.

Table no. 4 Daily regimens

<i>Pathya (do's)</i>	<i>Apathya (don'ts)</i>
Exercise regularly, do meditation	Don't follow Sedentary lifestyle
Wake up before 6.00 am and go to sleep up to 9.00 pm	Don't do day sleeping and late-night awakening
Follow hunger time properly	Don't do Overeating or fasting
Eat fruits and salad daily	Don't eat Bakery and dairy products, jaggery products, oily food, packaged and salty food
Always eat fresh and homemade food	
Food should include barley or other millet diet, green gram in pulses, lukewarm water to drink	Don't consume alcohol and other soft drinks
	Don't eat black gram, stale food

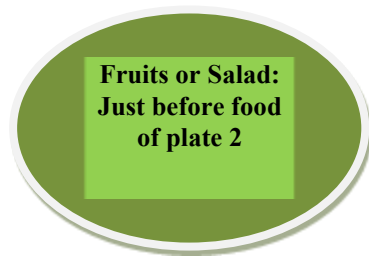
Diet:

Along with *ayurvedic* diet he was advised to have diet according to advanced method of diet plan i.e. **DIP diet (Disciplined and Intelligent Person's Diet)**.^[5] This diet plan is clinically proven and showed a complete cure in the disorders which caused by unhealthy lifestyle. This diet provides, discipline to the patient's diet timing and it planned intelligently, with how much quantity should be advised of salad and fruit to be consume. Formula for quantity of fruits and salad which mentioned in DIP diet plan are according to patient's weight. They are helpful in diseases like diabetes, hypertension, thyroid, and liver diseases etc.

Formula of fruits: Patient's weight $\times 10$ = fruits in grams

Formula of salad: Patient's weight $\times 5$ = salad in grams

So he was told to take the calculated quantity of **fruits that was 766 grams** and quantity of **salad was 383 grams**. Plate 1 and plate 2 of food were advised as follows:

**Plate no. 1: Fruits or Salad****Plate no. 2: Millet diet**

Discipline to have this food:**Fruits** to have – Till 12.00 pm**Salad** to have – Just before lunch and dinner**Lunch** – Between 1.00 to 2.00 pm**Dinner** - In the evening before 7.30 pm

Prescribed ayurvedic medicines: Following formulations were prescribed to take with lukewarm water. 1st course of medicine was given for one month. In the 1st follow-up, he was again prescribed the same course of one month but one formulation was skipped in second month course. Both courses with direction of use are mentioned below in table no. 5 & 6.

Table no. 5

Course 1: 11-09-2024 (1 st Day)	
Capsule Go Flexi	1 Capsule BD (<i>Pragbhakta kala</i> with <i>Koshna jala</i>)
DM Capsule	1 Capsule BD (<i>Adhobhakta kala</i> with <i>Koshna jala</i>)
Madhumeha nashak syrup	20 ml syrup BD (<i>Adhobhakta kala</i> with <i>saman matra</i> of <i>Koshna jala</i> i.e. equal amount of lukewarm water)

Table no. 6

Course 2: 15-10-2024 (Follow up)	
Capsule GO Flexi	1 Capsule BD (<i>Pragbhakta kala</i> with <i>Koshna jala</i>)
DM Capsule	1 Capsule BD (<i>Adhobhakta kala</i> with <i>Koshna jala</i>)

RESULT:

Result included accurate diagnosis of disease and outcome of treatment after the *ayurvedic* intervention. On the basis of sign and symptoms, examinations and hematological parameter it was diagnosed as *Madhumeha (Vataj prameha)*. *Ayurvedic* therapeutics was advised to treat the disease. After having oral formulations, strictly following *Pathya- apathya* and DIP diet there was remarkable reduction in HbA1c value just within a month. Besides this it was found that patient got relief in the symptoms mentioned in case report. His hunger got regulated to normal because of regulation in metabolism by *ayurvedic* herbs. General body weakness was also reduced and

he felt energetic after the treatment. His HbA1c reading reversed, to be within normal range but still, he was advised to continue the medicines for next one month, to prevent the disease from re-occurrence and to boost immunity.

Outcomes:

- **Early and accurate diagnosis of *prameha*** (Diabetes) in the absence of pre-symptomatic and symptomatic phase.
- **Relief** in polyphagia and increase in immunity thereby diminishing generalized weakness.
- **Speedy reversal of HbA1c value** is as given in table below-

Table.- Biochemistry report

Test description	12/09/2024 (Before treatment)	14/10/2024 (After treatment)
HbA1c	9.8 %	5.64 %
Estimated average glucose	235 mg/dL	115.17 mg/dL

DISCUSSION:

In the textbook of '**Essentials of Medical Physiology**' it is mentioned that diabetes mellitus is a metabolic disorder characterized by high blood glucose level, associated with other manifestations. 'Diabetes' means 'polyuria' and 'mellitus' means 'honey'. The name 'diabetes mellitus' was coined by Thomas Willis, who discovered sweetness of urine from diabetics in 1675.^[6] 90 percent diabetic cases are of type 2 diabetes mellitus. This article is also presenting a case of type 2 DM. In type II diabetes mellitus, the structure and function of β -cells and blood level of insulin are normal. But insulin receptors may be less, absent or abnormal, resulting in insulin resistance. Common causes of insulin resistance are:^[6]

1. Genetic disorders (significant factors causing type II diabetes mellitus)
2. Lifestyle changes such as bad eating habits and physical inactivity, leading to obesity
3. Stress.

Acharya Vagbhata in *Nidansthan* mentioned the etiological factors of *Prameha*. He stated that, 'food and drinks along with such activities which increases **Meda** (Fat), **Mutra** (Urine) and

Kapha are mainly responsible for the pathogenesis of *prameha*.’ He noted other factors also which causes *prameha* as given in *shlok* no.1.^[7]

श्लोक १:

“प्रमेहा विंशतिः तत्र.....तेषां मेदो मूत्रकफावहम्॥१॥

अन्नपानक्रियाजातं यत् प्रायः तत् प्रवर्तकम्।

स्वादुअम्ललवणः स्निग्धगुरुपिच्छिलशीतलम्॥२॥

नवधान्यः सुराः अनूप मांसेक्षुगुडगोरसम्।”

अष्टांग हृदय निदानस्थान १०/०१

This article is about the case of a male patient aging 39 years old who had come with asymptomatic *Prameha vyadhi* to **Jeena Sikho Life Care Limited Clinic, Karol Bagh, New Delhi** on **11/09/2024**. Asymptomatic phase of this case was diagnosed according to *ayurveda*. Because *ayurveda* mentioned the following pre-symptomatic phase (*Purvaroopas*) of *prameha* given in *shloka* no. 2

श्लोक २:

“स्वेदोअंगगन्धाः शिथिलांगता च शय्यासन स्वप्नसुखे रतिः च।

हृत्तेजजिह्वाश्रवण उपदेहो घनांगता केशनखातिवृद्धिः॥१३॥

शीतप्रियत्वं गलतालुशोषो माधुर्यमास्ये करपाददाहः।

भविष्यतो मेहगदस्य रुपं मुत्रे अभिधावन्ति पिपीलिकाः च॥१४॥

चरक संहिता चिकित्सास्थान - ६

Nidan panchak (5 factors from etiological factors to diagnosis):

It includes *Hetu* (etiological factors), *Purvaroopas* (pre-symptomatic condition), *Roopa* (sign and symptoms), *Upshay* (factors which causes rise in symptoms or relief in symptoms) and *Samprapti* (pathogenic process and diagnosis).^[8]

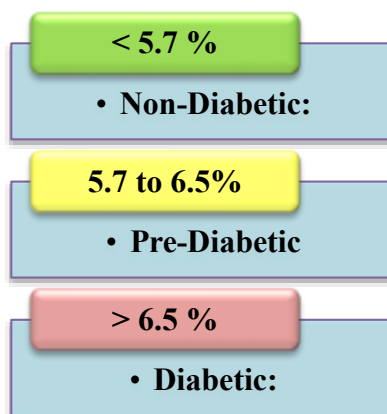
1. **Hetu** – All *ayurvedic* texts explained near most same causative factors of *prameha*, as already mentioned above in *shloka* no. 1. In this case patient had history of chronic alcoholism. *Acharya Vagbhata* in *Nidansthan* mentioned that *sura* is one of the

causative factor of *Prameha* (*Shlok* no. 1) *Sura* is a synonym of *Madya* i.e alcohol. Also *Acharya Sushruta* and *Charaka* mentioned that '*drava annapanani*' means liquid diet and drinks are among the cause of *prameha*. So the main causative factor in this patient was chronic alcoholism.

2. **Purvaroop** – *Acharya Charaka* has given details of pre-symptomatic phase of *prameha*, in *prameha chikitsa adhyaya* like *kara-pada daha* (burning sensation to limbs), *kesha-nakhativruddhi* (increased growth of hair and nails) etc. But this patient never been suffered with *purvaroop*'s (Pre-symptomatic phase).
3. **Roopa** – This patient had come with asymptomatic *Prameha vyadhi*. He had not complained of '*Prabhuta mutrata* (excess or frequent urination). *Prabhuta mutrata* is a main symptom of *prameha* said by *Acharya Charaka* with others as well. But he had complaint of Polyphagia and general body weakness. Polyphagia is a feeling of extreme hunger. It is a common sign of diabetes according to modern science. Although it can have other medical causes like hyperthyroidism and atypical depression.^[9] Also, in diabetes, cells cannot use blood glucose for their functions and it causes general body weakness. But general body weakness is also a sign of various conditions like dehydration, digestive disorders, anxiety etc. So to catch the diagnosis he was advised to investigate for HbA1c.

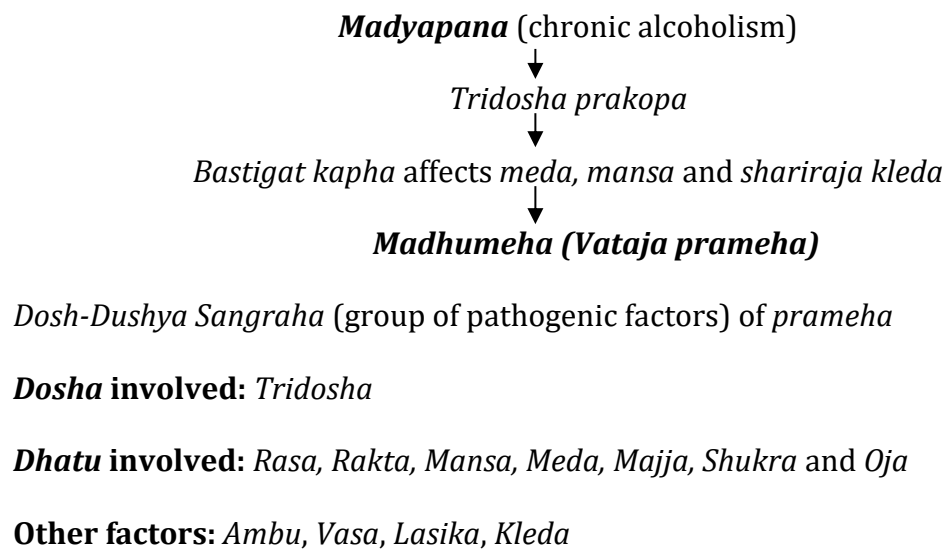
HbA1c is an average blood glucose levels for the last 2 to 3 months and is reported as a percent, while estimated average glucose (eAG) is a calculated value based on HbA1c of patient. eAG is reported in the same units as blood glucose monitor at home, such as mg/dL. For the diagnosis of diabetes an ideal level of HbA1c is 48 mmol/mol.^[10,11] In the investigation it was found that his **HbA1c level is 9.8 %** and **estimated average glucose level is 235 mg/dL**. This value comes under diabetic range as mentioned in below chart.

Chart of Reference range for HbA1c



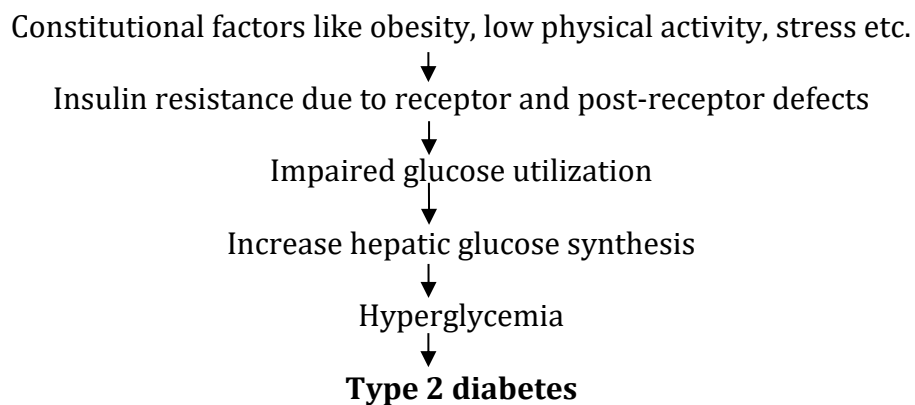
4. **Upshay** – Patient did not observed any factor by which his symptoms would get relived or any triggering factors.
5. **Samprapti** – *Samprapti* is the process that how the disease progresses from *hetu sevan* (Etiological factors) till diagnosis. These *hetu's* vititates *dosha* and *dushya*. These vitiated pathogenic factors then lead to disease and affect some specific organ. **Samprapti** of this patient is given below in a **flow chart no. 1**.

Flow chart no. 1 *Samprapti of prameha*^[12]



According to modern science there is no detailed explanation of causative factors. They called diabetes as a metabolic complex disorder. So the factors affecting the metabolism and thereby elevating the blood glucose level are supposed as causative factors. For example, Obesity, stress, Hypertension etc. Pathogenic process of type 2 DM is as follows in flow chart:

Flow chart no. 2 pathogenic process of type 2 DM^[13]



Sadhya-asadhyatva (Prognosis of this case):

Through the perspective of *ayurveda*, *Kaphaja prameha* is *Sadhya* (good prognosis), *Pittaja prameha* is *Yapya* (hard to cure but possible) and *Vataja prameha* is *Asadhya* (not curable). In the detail it is said that *Kaphaja* and *Pittaja prameha* with all *purvaroopas* (pre-symptomatic phase) and *Vataja prameha* which shows all and exact sequential circumstances of *hetu* etc. *nidanpanchak* are *asadhya* that means incurable.

In this case the patient was diagnosed as *madhumeha* which is a sub-type of *Vataja prameha*. And *vataja prameha* is mentioned above as *asadhya*. But this case not had all the sequence of *samprapti*. Pre-symptomatic and symptomatic phase were absent in this case. So it was considered as good prognosis for the case and then treatment was started.

Ayurvedic management:

Management of *Prameha* is based on the type of *prameha* and also the type of *pramehi* i.e. patient *Acharya Charaka* classified *Prameha rugna* in 2 types for the ease of treatment.

1. ***Sthool pramehi with Balwan dosha*** (Obese and more pathogenic factors involved) and
2. ***Krish pramehi with Durbal dosha*** (non-obese and less pathogenic factors involved).

In *sthoor pramehi* 1st *Sanshodhan chikitsa* (detoxification by *Panchakarma*) is advised and in *krish pramehi* *Sanshaman* (Oral medicines/ palliative drugs) should be advised. This patient is not *krisha* but his disease involved less pathogenic factors. Along with this he already had complaint of general body weakness. Then he had *vataja prameha* in which along with *kapha dosha*, *vata dosha* is also elevated. In this condition *shodhan chikitsa* by *panchakarma* procedure is contraindicated as it again elevates *Vata dosha*. So to pacify vitiated *kaphadi dosha dushya*, oral medicines, diet and daily regimens were advised to the patient.

1. ***Nidan parivarjan***: Initiative step towards the *prameha chikitsa* should be with *nidan parivarjan*, because *Charakacharya* said that “हेतोः असेवा। जातस्य रोगस्य भवेत् चिकित्सा॥” The causative factors which are responsible to cause *prameha* should be avoided. So he was told to avoid alcohol consumption, as his causative factor and other factors also told to avoid as mentioned in *pathya-apatthya*.

2. **Importance of Vyayama (exercise) in prameha:** Charakacharya stated that, *Nitya vyayama* is helpful to prevent and to cure *prameha*. So patient was advised to do exercise regularly.
3. **Diet:** He was advised to take *laghu aahara* means which is light to digest. For this he was told to take food made up of millets especially *Yava* (barley). Because *yava* (barley) is suggested for *prameha rugna* by Charakacharya. Also told to have soup green gram i.e. *mudga*. This diet is advised to take in a particular manner for better result. It is a **DIP diet plan** (Discipline and Intelligent). This diet plan helped patient for having food with discipline. Intelligently planned fruit and salad quantity as given in material and method also helped a lot to energize the patient. Hence this DIP diet was suggested to regularize the metabolism and thereby preventing blood sugar level to increase.

4. Medicines prescribed:

Combinations of herbs which are helpful in diabetes were given. These formulations play a key role in *prameha* by various functions. Functions like *Pachana* (digestion and metabolism), *Pramehaghna* (anti-diabetic), *Rasayana* (Immunity booster) etc. Majority of herbs are having *Katu*, *tikta*, *kashay rasa*, *Ushna veerya* and *Katu vipaka* which helps to absorb (Shoshan) *dosha dushya* in *prameha*.

Prescribed formulations with their ingredient herbs & metals along with indications are given as follows.

Capsule GO Flexi

Ingredients: *Paneer dodi*, *Ashwagandha* (*Withania somnifera*), *Aamalki rasayan* (Tonic made up of *Embelica officinalis*), *Yograja guggulu* powder (Ayurvedic formulation mainly contains *Commiphora mukul*), *Methika* (*Trigonella foenum graecum*), *Shankha bhasma*, *Gokshur* (*Tribulus terrestris*), *Punarnava* (*Boerhaavia diffusa*), *Nirgundi* (*Vitex nigundo*), *Haridra* (*Curcuma longa*), *Nimba* (*Azadirachta indica*)

Indications: Analgesic, anti-inflammatory, immunity booster and pain killer

Capsule DM

Ingredients: *Aamragandhi Haridra* (*Curcuma amada*), *Guduchi* (*Tinospora cordifolia*), *Methika* (*Trigonella foenum*), *Shweta musli* (*Chlorophytum borivilianum*), *Nimba* (*Azadirachta indica*), *Karvellak* (*Momordica charantia*), *Jambu* (*Syzygium cumini*),

Bilva patra (Aegle marmelos leaves), Gudmar (Gymnema sylvestre), Sheelajit (Asphaltum)

Indications: All types of diabetes and all diabetic complications.

Madhumehaashak syrup:

Ingredients: *Karvellak (Momordica charantia), Jambu, Nimba (Azadirachta indica), Kirattikta (Swertia chirayta), Gudmar (Gymnema sylvestri), Kutaj (Holarrhena antidysenterica)*

Indications: Diabetes mellitus, Diabetes neuropathy, Retinopathy, Hyperglycemia

Some ayurvedic herbs listed below are well known for their key role in diabetes which included in the above formulations:

Herbs	Action
<i>Guduchi (Tinospora cordifolia)</i>	<i>Mehanut</i> (Anti-diabetic) ^[14]
<i>Gudmar (Gymnema sylvestri)</i>	<i>Mehanut</i> (Anti-diabetic) ^[15]
<i>Amalaki (Embllica officinalis), Haridra (Curcuma longa)</i>	<i>Meheshu Dhatri Nisha</i> ^[16]
<i>Nimb (Azadirachta indica)</i>	<i>Mehaghna</i> (Anti-diabetic) ^[17]
<i>Kutaj (Holarrhena anti-dysenterica)</i>	
<i>Kirattikta (swertia chirayta)</i>	
<i>Karvellak (Momordica charantia)</i>	Contains Charantin as hypoglycemic chemical compound ^[18]

FURTHER SCOPE OF STUDY:

This is a single case which gave us fruitful result. But more study is needed with more number of samples that means patients of same criteria or patients with increased HbA1c. It is important to know the average time needed in reversing the HbA1c value and thereby treating the diabetes in large sample through *ayurveda* intervention. This data will help the people to cure and prevent diabetes as early as possible.

CONCLUSION:

This presenting article is about to conclude that though the patient does not show the main symptom of diabetes that is excessive urination despite that he could have chances of diabetes. So one should examine carefully and find out proper *nidana panchak* to diagnose the disease accurately. This patient had no symptom of excessive or frequent urination. But he had complained of polyphagia which may be in various conditions like diabetes, hyperglycemia, thyroidism etc. To know the accurate diagnosis his HbA1c was tested and it found in increased range than normal. *Ayurvedic* management included oral medicines along with DIP diet and *ayurvedic patthya pathya's*. In oral formulations herbs like *triphala*, *trikatu*, *arjun*, *haridra*, *shunthi* were added which have properties like *pramehaghna* (anti-diabetic), *rasayana* (immunity booster), *pachan* (which regulates metabolism) etc. Within a month he had positive reports that blood parameter came within normal range. This study gives an outcome that early and accurate diagnosis of diabetes with proper ayurvedic therapeutics can help to cure and reverse the diabetic condition speedily to normal.

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REPORTS OF HbA1c:

Report 1: Before treatment

Report 2: After treatment

Report 1: Before treatment

5:36 PM 4G+ 80

← LabReportNew (17)...

Accuracy Matters...

LAB REPORT

Customer Care Number
9599591622
9599593625

Barcode No	87871629	Lab No	11142409120032
Patient Name		Reg Date	12/Sep/2024 12:48PM
Age/Sex	30 F IND/MALE	Sample Coll. Date	12/Sep/2024 11:54 AM
Referred By	SELF	Sample Rec.Date	12/Sep/2024 04:28 PM
Client Code/Name	AP092860		
Ref. Lab/Hosp		Report Date	12/Sep/2024 05:48PM

Test Name With Methodology	Result	Unit	Biological Ref.Interval
HAEMATOLOGY			
HbA1c (Glycated hemoglobin)	BEFORE		
Glycosylated Hb (HbA1c) <small>EDTA, HPLC</small>	9.8	%	4.2-6.5
Average Glucose <small>Calculated</small>	235	mg/dl	73-140

Ref Range for HbA1c

Non Diabetic: < 5.7 %
Pre-Diabetic: 5.7 - 6.5 %
Diabetic: > 6.5 %

Remark: Hemoglobin A1c criteria for diagnosing diabetes have not been established for patients who are <18 years of age.

HbA1c goals in treatment of diabetes:

Ages 0-6 years: 7.6% - 8.4%
Ages 6-12 years: <8%
Ages 13-19 years: <7.5%
Adults: <7%

COMMENT:

The Glycosylated Hemoglobin (HbA1c or A1c) test evaluates the average amount of glucose in the blood over the last 2 to 3 months. This test is used to monitor treatment in someone who has been diagnosed with diabetes. It helps to evaluate how well the person's glucose levels have been controlled by treatment over time. This test may be used to screen for and diagnose diabetes or risk of developing diabetes. Depending on the type of diabetes that a person has, how well their diabetes is controlled, and on doctor recommendations, the HbA1c test may be measured 2 to 4 times each year. The American Diabetes Association recommends HbA1c testing in diabetes at least twice a year. When someone is first diagnosed with diabetes or if control is not good, HbA1c may be ordered more frequently.


Note: If a person has anemia, few type of hemoglobinopathy, hemolysis, or heavy bleeding, HbA1c test results may be falsely low. If someone is iron-deficient, the HbA1c level may be increased. If a person has had a recent blood transfusion, the HbA1c may be inaccurate and may not accurately reflect glucose control for 2 to 3 months.

Report 2: After treatment



SHARDA HEALTHCARE
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New Delhi-110012
Phone Number: +91-7827438645, +91-9012070640
Email: shardahealthcare9@gmail.com
website : www.shardaahc.com

Name		Patient ID	: 241014005	
Age/Gender	: 42 Years/Male	Report ID	: RE4672	
Referred By	: R.N. DIAGNOSTIC LABO- RATORY	Report Date	: 14/10/2024 05:00 PM	

BIOCHEMISTRY
HbA1C / GLYCOSYLATED

TEST DESCRIPTION	RESULT	FLAG	REF. RANGE	UNIT
HbA1C	5.64		4.0 - 6.0	%
Estimated Average Glucose	115.17		90 - 120	mg/dL

Interpretation:

HbA1C %	Result
>8%	Action Suggested
7-8%	Good Control
<7%	Goal
6-7%	Near Normal Glycemia
<6%	Normal level

~~End of report~~

AFTER

DR. VIVEK KAPOOR
MD PATHOLOGY





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RESEARCH ARTICLE

THE GREAT REVERT OF UNCONTROLLED TYPE 2 DIABETES MELLITUS WITH DIABETIC NEUROPATHY BY AYURVEDIC INTERVENTION: A CASE STUDY RELATING TOPITTAJ PRAMEHA - SUBTYPE HARIDRA MEHA

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Nimittaj Prameha, Diabetic Neuropathy,
Pittaj Prameha, HbA1c, Ayurvedic
Therapeutics

Abstract

Diabetes mellitus (DM) is a multi-factorial disease of disturbed metabolism with hyperglycemic condition. Among 2 types of diabetes, type 2 DM also named as non-insulin dependent diabetes is the most common type causes due to sedentary lifestyle. In ayurveda DM can be correlate with Prameha. Apathy-nimittaj Prameha is mentioned by Acharya Sushruta which occurs due to unhealthy lifestyle of patient. This presenting article is about a case of type 2 DM or Apathy-nimittaj prameha, diagnosed to a male patient of age 45 years. He had come to JEENA SIKHO LIFECARE LIMITED HOSPITAL, NAVI MUMBAI, MAHARASHTRA, on 12/09/2024 and showed symptoms like burning micturition, pain and numbness of lower limb etc. He brought his HbA1c report investigated prior to visit hospital. His symptomatology and positive HbA1c had given a clue to diagnose uncontrolled type 2 DM with diabetic neuropathy/ Pittaj prameha. Later he starts to avail ayurvedic therapeutics. After 74 days of treatment his HbA1c values reduced to non-diabetic range and his symptoms also got completely subsided. Treatment was included ayurvedic medicines along with diet and exercise recommendation which shown an excellent result.

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Introduction:-

As per the WHO, diabetes mellitus (DM) is defined as a heterogeneous metabolic disorder characterized by common feature of chronic hyperglycemia with disturbance of carbohydrate, fat and protein metabolism. DM is a leading cause of morbidity and mortality world over. It is estimated that approximately 1% of population suffers from DM. The incidence is rising in the developed countries of the world at the rate of about 10% per year, especially of type 2 DM, due to rising incidence of obesity and reduced activity levels. Diabetes is expected to continue as a major health problem owing to its serious complications. ^[1]There are two general types of diabetes mellitus as follows: ^[2]

1. **Type I diabetes mellitus** [Insulin-dependent DM] – Is caused by lack of insulin secretion.
2. **Type II diabetes mellitus** [Non-insulin-dependent DM] –Is initially caused by decreased sensitivity of target tissues to the metabolic effect of insulin. This reduced sensitivity to insulin is often called insulin resistance.

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Type II Diabetes:

It is far more common than type I, accounting for about 90 to 95 percent of all cases of diabetes mellitus. In most cases, the onset of type II diabetes occurs after age 30, often between the ages of 50 and 60 years, and the disease develops gradually. Therefore, this syndrome is often referred to as adult-onset diabetes. In recent years, however, there has been a steady increase in the number of younger individuals, including few younger than 20 years, with type II diabetes. This trend appears to be related mainly to the changing lifestyle from healthy to unhealthy. **Chronic hyperglycemia leads to diabetic complications** by causing tissue injury. When blood glucose is poorly controlled over long periods in diabetes, blood vessels in multiple tissues throughout the body begin to function abnormally and undergo structural changes that result in inadequate blood supply to the tissues. This in turn leads to diabetic complications like heart disease, kidney disease, retinopathy, blindness, ischemia and gangrene of the limbs etc. Frequent complications of chronic, **uncontrolled diabetes mellitus** are **peripheral neuropathy** and autonomic nervous system dysfunction. These abnormalities can result in impaired cardiovascular reflexes, impaired bladder control, decreased sensation in the extremities, and other symptoms of peripheral nerve damage.^[2]

According to Ayurveda Prameha is a santarpanotha vyadhi. It means that it occurs due to that factors which over nourishes the body.^[3] So the hetu of prameha also included those things which cause impairment in the metabolism like madya (alcohol), guda (jaggery), navanna (new grains), udaka mansa (Sea food), snigdha anna (oily food) etc. Hetu of prameha are mentioned later in discussion to understand the etiological factors. All aacharya's mentioned the main symptom of prameha is prabhuta mutrata^[4] or prabhuta avila mutrata^[5] (excess and/ turbid urine). In ayurveda detailing of prameha hetu (etiological factors), purvaroop's (pre-symptomatic phase), roopa's (symptomatic phase), samprapti (pathogenesis), dosha-dushya sangraha (pathogenic factors involved), sadhya-asadhyatva (prognosis) and prameha upadras (complications) are also mentioned. Management of prameha included detoxification, oral medicines together with diet and exercise recommendation. Acharya Sushruta classified Prameha in 2 types.^[6]

1) Sahaja Prameha and 2) Apatthya nimittaja prameha

Among these types sahaja prameha is a genetic or hereditary type. Apatthya nimittaja prameha has 3 types on the basis of predominance of dosha. These 3 types again sub-classified into 20 different sub-types on the basis of urine appearance. Types of Doshaj Prameha's are given as below:^[4]

- 1) Vataj prameha
- 2) Pittaj prameha
- 3) Kaphaj prameha

This article is going to present a significant reversal in a case of uncontrolled type 2 diabetes mellitus with diabetic neuropathy in particular view of **Pittaj prameha** and its subtype **Haridra meha**. He was a male patient aging 45 years, who visited to Jeena Sikho Lifecare Limited Hospital, Navi Mumbai, Maharashtra, on 12/09/2024. By ayurvedic intervention his uncontrolled diabetes gets reverted to normal within 74 days. All symptoms got subsided along with normal shift in the HbA1c value. This treatment included, panchakarma therapies, oral medication, diet and exercise recommendations. All the belongings are mentioned from here onwards that how disease occurs, how it became uncontrolled and how ayurveda treated it accurately with ayurvedic conceptual study.

Case Report:

This is a case of male patient was aging 45 years. He had come to JEENA SIKHO LIFECARE LIMITED HOSPITAL, NAVI MUMBAI, MAHARASHTRA, on 12/09/2024. On arrival, his chief complains were noted as given below followed by history taking and examinations as well.

1. Chief complains:

- Pain while walking
- Numbness and tingling to bilateral lower limb
- Anorexia
- Nausea and vomiting
- Burning micturition on & off/ persistent
- General weakness
- Burning sensation to both feet and sole
- Headache or dizziness
- Feeling of fear

2. **History taking:** He had no history of illness/ he was not taking any allopathic or other medicines/ no any family history of diabetes etc.

3. **Examinations:**

Table no. 1:- General examination.

Particulars	Remark
Blood Pressure	140/80 mm of Hg
Pulse	84/ min
Weight	69.2 kg
Nidra	Prakrita
Kshudha	Prakrita
Mutra	Mutra daha (burning micturation)

Table no. 2:- Ashtavidh parikshan.

Particulars	Remark
Nadi (pulse)	Vata pitta
Mala (bowel)	Asamyaka (not clear)
Mutra (urine)	Mutra daha (burning micturation)
Jivha (tongue)	Alpa Sama (mild coated)
Shabd (pronunciation)	Spashta (clear)
Sparsh (touch)	Anushna Sheeta (normal)
Drik (eyes)	Prakrita (normal)
Aakriti (physique)	Madhyam (average)

Local examination:

Bilateral pitting edema was found to lower limb.

4. **Investigation:**

He had already brought HbA1c report investigated on 15/08/2024 and showed elevated value of HbA1c, 10.4 % which counted under poor control range and together with this he had also brought RFT, LFT, lipid profile reports.

Table no. 3:- HbA1c report.

Date	HbA1c	Eag
15/08/2024	10.4 %	251.78 mg/dL
03/10/2024	7.1 %	157 mg/Dl
05/11/2024	5.5 %	111.15 mg/dL
25/11/2024	4.9 %	94 mg/Dl

Table no. 4:- Other investigations.

Date	Tests	Result
15/08/2024	LFT (Liver function test)	Direct bilirubin - 0.43 mg/dl (mild high) Total Bilirubin, SGOT & SGPT normal
	Urine analysis	Specific gravity – 1.004 (Normal – 1.016 to 1.022)
	Lipid profile	Normal
13/09/2024	CBC (Complete blood count)	Normal
	LFT (Liver function test) Mild increase in bilirubin	Total Bilirubin - 1.79 mg/dl Direct Bilirubin - 0.69 mg/dl Indirect Bilirubin - 1.1 mg/dl
	RFT (Renal function test)	Normal

5. **Diagnosis:** On the basis of symptomatology, history, examination and blood report this case was diagnosed as **Uncontrolled Type 2 diabetes mellitus with Diabetic neuropathy**. According to ayurvedic perspective same case was diagnosed as **Pittaj prameha – subtype Haridra meha**.

Ayurvedic Intervention:

After the diagnosis patient wanted to avail ayurvedic therapy for further treatment. Therefore, he was admitted to IPD for ayurvedic therapeutics which included oral medicines, panchakarma therapies (detoxification procedures), pathy-apathy aahar vihar (do's and don'ts of diet and activities).

1] Panchakarma Therapies (9 days of IPD):

Table no. 5:- Panchakarma procedures.

Therapy name	Medicine used for therapy	Quantity and time
1. Sarvang abhyang	Ksheerbala taila	30 min.
2. Avgaha swedana	Ushna jala (hot water)	20 min
3. Matra basti	Punarnava taila	90 ml for 10 min
4. Shirodhara	Bramhi taila	150 ml for 30 min.

2] Medicines prescribed during IPD period:

Table no. 6:- IPD prescription.

Formulation	Dose and time
Divya Shakti powder	½ tsf HS (Nishakala with Koshna jala i.e. lukewarm water)
Prameha rog har powder	½ tsf TDS before meal (Pragbhakta kala with Koshna jala)
Syrup madhumeha nashak	20 ml BD (Adhobhakta kala with saman matra of Koshna jala i.e. equal amount of lukewarm water)
Capsule DM	2 Capsule TDS (Adhobhakta kala with Koshna jala)
Yakrit shotha har vati	1 Tablet BD (Pragbhakta kala with Koshna jala)
Syrup Nervine tonic	10 ml BD (Adhobhakta kala with Koshna jala)

3] Follow up during IPD:

Table no. 7:- IPD follow-up.

Date	Follow-up of Symptoms	Treatment	Pain score 10
12/09/2024 (1 st day of IPD)	<ul style="list-style-type: none"> Chief complains as mentioned in Case report 	Mentioned in table no. 5 & 6	4
13/09/2024	<ul style="list-style-type: none"> No fresh complains Recurrent vomiting⁺⁺ 	1. Lepam over bilateral feet 2. Arogya vati 3. Rest continued	4
14/09/2024	<ul style="list-style-type: none"> Recurrent vomiting⁺ 	Continue all	4
15/09/2024	<ul style="list-style-type: none"> No fresh complains 	Kansyathali – foot massage	
16/09/2024	<ul style="list-style-type: none"> Morning 10.00 am: Per abdomen tenderness over whole abdomen Evening 8.30 pm: Vomiting and edema reduced 	Tab. vomitab 2 stat	5
17/09/2024	<ul style="list-style-type: none"> Per abdomen: Normal/ non-tender 	Continue all	4
18/09/2024	<ul style="list-style-type: none"> Reduced burning sole, no vomiting 	Continue all	3
19/09/2024	<ul style="list-style-type: none"> Reduced burning sole, Diminish numbness and tingling of lower limb, Pitting edema reduced General weakness reduced, Fear + 	Tab Dr. Sukoon 1BD Rest continued	2

20/09/2024 (7 th day of IPD)	<ul style="list-style-type: none"> No giddiness, No burning sole, General weakness⁺ 	Continued all	2
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4] Daily diet during IPD:

Table no. 8:- IPD diet.

Early morning	Herbal tea + raw turmeric
Breakfast	Fruits, sprouts and red juice
Lunch and dinner	Salad and cooked food
Afternoon	Green juice, Makhana, 4-5 almonds

5] Medicines prescribed to consume after discharge:

Table no. 9:- Medicines to consume after discharge.

Formulation	Dose and time
Divya shakti powder	½ tsf HS (Nishakala with Koshna jala i.e. lukewarm water)
Syrup Nervine tonic	20ml BD (Adhobhakta kala with Koshna jala)
Tablet JS Diab	2BD before food (Pragbhakta kala with Koshna jala)
Tablet Immune pathy	1 BD after food (Adhobhakta kala with Koshna jala)
Tablet Liv DS	2 BD (Adhobhakta kala with Koshna jala)
Syrup Liver tonic	20 ml BD after food (Adhobhaktakala with saman matra of Koshna jala)
Syrup Telome	10 ml BD after food (Adhobhakta kala with saman matra of Koshna jala)
Syrup Madhumeha nashak	10 ml BD after food (Adhobhakta kala with saman matra of Koshna jala i.e. equal amount of lukewarm water)
Tablet Dr. sukoon	1 BD before food (Pragbhakta kala with Koshna jala)

6] Diet suggested to follow after discharge:

Patient was advised to have DIP diet that was planned according to advanced method of diet plan named as **DIP (Discipline and Intelligent) diet**. Per day diet included **plate no. 1 of fruits, salad** and **plate no. 2 of millet diet** in lunch and dinner. Quantity of fruits and salad were calculated according to DIP diet plan formula's and are given below.^[7] He was advised to have that food which is pathya for Prameha vyadhi, will be discuss later.

Formula of fruits: Patient s weight × 10 = fruits in grams

Formula of salad: Patient s weight × 5 = salad in grams

In this case weight of patient was 69.2 kg. So by the above formula calculated quantity of fruits and salad advised is mentioned below in table no. 10. This table also noted the discipline in having food as per time which was suggested to him:

Table no. 10:- DIP diet at home.

Diet	Quantity/type of food	Time
Fruits	<ul style="list-style-type: none"> All type of fruits especially citric fruits ~ 700 grams 	Till 12.00 pm
Salad (Plate 1)	<ul style="list-style-type: none"> All salads like cucumber, tomato, beetroot etc. ~ 350 grams 	Just before lunch and dinner
Lunch (Plate 2)	Millet diet, bitter and fruit vegetables, lentils etc.	Between 1.00 to 2.00 pm

Dinner (Plate 2)	Millet diet, bitter and fruit vegetables, lentils etc.	In the evening before 7.30 pm
-------------------------	--	-------------------------------

7] **Exercise:** Regular exercise and meditation for 45 minutes was advised to him. He was told to practice Sun salutations (Surya namaskara's) along with Kapalbhati pranayam.

8] Pathya-apathya (Do's and don'ts):

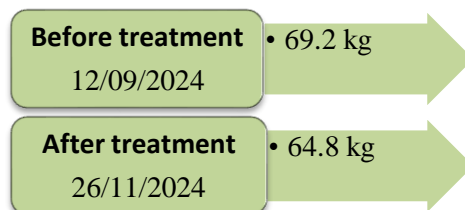
Table no. 11:- Pathya-apathya.

Pathya (Do's)	Apathya (Don'ts)
Should have millet diet like barley, sorghum etc. Eat all vegetables especially bitter taste and fruit vegetables like Karvellaka (bitter guard), Methika (Trigonella foenum-graecum), Ivy guard etc.	Skip dairy products, jaggery and their products, oily, spicy food, packaged food, salty food. Don't eat non-veg.
Wake up early and sleep early	Day sleeping and night awakening
Do exercise regularly and always stay physically active.	Stale food, alcohol or any other addiction, avoid eating new grains.
Eat only in day time	Hold natural urge
Always eat homemade and fresh food.	Stress and anger

Results:-

Weight decline:

By following DIP diet and exercise, his weight was reduced approximately by 5 kg within 2 and half months.



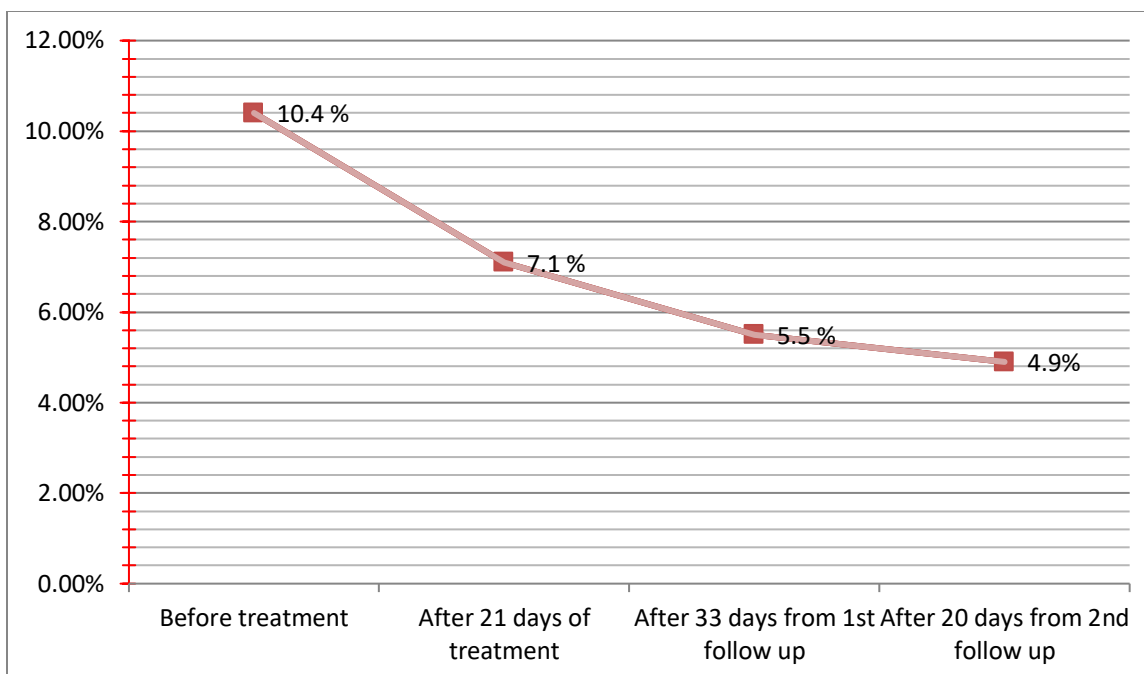
Reversal in altered HbA1C assessment:

After 21 days of ayurvedic treatment HbA1c value reduced by more than 3% that is shifted to 7.1% from 10.4%. From here HbA1C was decreased to near about half of pre-treatment value and reached to 5.5% in the next 33 days. This is a border line reading of non-diabetic HbA1c value. After total 74 days of ayurvedic treatment it reduced to 4.9% successfully and it is within border line range of non-diabetic HbA1c. Tabular presentation of HbA1C outcome is given below in table no. 12.

Table no. 12:- HbA1c outcome.

Date	Before or after treatment	Result
15/08/2024	Before treatment, 28 days prior to start treatment	10.4%
03/10/2024	After 21 days of treatment	7.1%
05/11/2024	After 33 days from 1 st follow up	5.5 %
25/11/2024	After 20 days from 2 nd follow up (Within 74 days of treatment)	4.9 %

Below graph is showing how the graph of HbA1c was positively declining from diabetic to non-diabetic range during the ayurvedic treatment.



Graph no. 1:- Declining percentage of HbA1c with downward slop.

Symptomatic outcome:

Table no. 13:- Symptomatic relief during IPD.

Date	Day of IPD	Result
18/09/2024	7 th day	<ul style="list-style-type: none"> Mild reduction in burning sole, No vomiting
19/09/2024	8 th day	<ul style="list-style-type: none"> Reduced burning sole, Diminish numbness and tingling of lower limb, mild reduction in Pitting oedema General weakness reduced to some extent, Complain of mild fear yet.
20/09/2024	9 th day	<ul style="list-style-type: none"> No giddiness, No burning sole, General weakness mild

Outcome of pain score during admission was as like below:

Table no. 14:- Progress in pain score.

Day of treatment	Pain score
1 st to 4 th day	4
5 th day	5
6 th day	4
7 th day	3
8 th day	2
9 th day (last day)	2

At the time of last follow up his all symptoms were subsided.

Table no. 15:- Last follow-up.

Symptoms	Result
Pain while walking	Diminishes
Numbness and tingling to bilateral lower limb	He was started to feel sensations to lower limb.
Anorexia	Normalized

Nausea and vomiting	Absent
Burning micturition on & off/ persistent	Reduced
General weakness	Recovered
Burning sensation to both feet and sole	Absent
Headache or dizziness	Absent
Feeling of fear	Went off

Discussion:-

As we studied earlier diabetes mellitus is a syndrome of disturbed carbohydrate, fat and protein metabolism caused by either lack of insulin secretion or decreased sensitivity of the tissues to insulin. In both types of diabetes mellitus which are mentioned in introduction, metabolism of all the main foodstuffs is altered. The basic effect of insulin lacks or insulin resistance on glucose metabolism is to prevent the efficient uptake and utilization of glucose by most of the cells of the body, except those of the brain. It leads to increase in blood glucose concentration along with cell utilization of glucose falls increasingly lower and utilization of fats and proteins increases.^[8] According to Ayurveda 3 types of Doshaja Prameha as stated in introduction are again re-divided into 20 sub-types by the appearance of urine. Kaphaj prameha have 10 subtypes, Pittaj have 6 and Vataj have 4 subtypes. This is a case of Pittaj prameha, that's why subtypes of Pittaj prameha are mentioned here as follows:^[9]

1. Kshar meha
2. Kala meha
3. Neela meha
4. Lohita meha
5. Manjistha meha
6. Haridra meha

This article is a case of uncontrolled type 2 diabetes with diabetic neuropathy or Pittaj prameha sub-type Haridra meha. A male patient of age 45 years had already investigated for HbA1c 28 days prior presented to JEENA SIKHO LIFECARE LIMITED HOSPITAL, NAVI MUMBAI, MAHARASHTRA, INDIA on 12/09/2024. His case report is already given. Now the detailed discussion on case study, diagnosis and patho-physiology of this case is as follows:

Etiological factors:

He was used to unhealthy lifestyle and not following the timings of eating and sleeping properly. He was not even exercising. Even after elevated HbA1c value he ignored it and this ignorance lead to again triggering in symptoms due to uncontrolled hyperglycemia. Acharya Vagbhata mentioned following causative factors to generate Prameha as given in shloka no 1.

Food and activities which increases Meda (Lipid or fat), Mutra (urine) and Kapha dosha, food of sweet, sour and salty taste, Snigdha (Oily), Guru (uneasy to digest), Pichchhila (Sticky or fermented), Sheetal (cold potency food), Nava dhanya (new grains), sura (alcohol), Anoop mansa (sea food, meat of buffalo, goat etc.), Ikshu (sugarcane), Guda (jaggery), Gorasam (curd and milk), Eka sthana aasanarati (sitting continually at one place), Shayanam vidhi varjitam (sleeping without following rules of sleep).^[10]

श्लोकः

“प्रमेहाविंशतिः तत्र.....तेषांमेदोमूत्रकफावहम्॥१॥
अन्नपानक्रियाजातंयत्प्रायःतत्प्रवर्तकम्।
स्वादुअम्ललवणःस्निग्धगुरुपिच्छिलशीतलम्॥२॥
नवधान्यः सुराःअनूपमांसैक्षुगुडगोरसम्।
एकस्थानासनरतिः शयनम् विधि वर्जितम्॥३॥”
अष्टांगहृदयनिदानस्थान१०/०१

Symptomatology of case:

1. Pain while walking, Numbness and tingling at bilateral lower limb, burning sensation at both feet and sole:

It is a symptom of diabetic neuropathy. As with other complications of DM, the development of neuropathy correlates with the duration of diabetes and glycemic control. This case is of a **Distal Symmetric Polyneuropathy**

(DSPN), the most common form of diabetic neuropathy, most frequently presents with distal sensory loss and pain. Symptoms may include a sensation of numbness, tingling, sharpness, or burning that begins in the feet and spreads proximally.^[1] Pain typically involves the lower extremities. As per ayurvedic perspective, this symptom is mentioned in poorvaroop (Pre-symptomatic phase) of Prameha vyadhi as below:

श्लोक१:

“स्वेदो अंगगन्धाः शिथिलांगता च शय्यासनस्वप्नसुखेरतिः च ।
हृत्तेजजिह्वाश्रवणउपदेहो घनांगता के शनखातिवृद्धिः ॥१३॥
शीतप्रियत्वंगलतालुशोषो माधुर्यमास्येकरपाददाहः ।
भविष्यतो मेहगदस्यरूपं मुत्रे अभिधावन्ति पिपीलिकाः च ॥१४॥

चरकसंहिताचिकित्सास्थान-६

Table no. 16:- Poorvaroop.

Poorvaroop	Elaboration
Kara-pada daha ^[4]	Burning sensation to hands and legs
Hasta-pada-tala daha ^[5]	Burning sensation to upper and lower limb with palm & sole
Karapadayoh suptata dahou ^[8]	Numbness and burning to upper and lower limb

Modern science mentioned it as diabetic complication whereas ayurveda mentioned it as pre-symptomatic phase of diabetes. In treatment Acharya already said that if prameha manifests with all its poorvarup's then it is not curable. And according to modern science also diabetes with complications is the chronic stage of diabetes which is not curable.

2. Anorexia:

May be due to fear of gaining weight he was not eating enough food. Obese people are generally more prone to diabetes. So some people may have this symptom of anorexia nervosa usually called anorexia.

3. Nausea and vomiting:

This may be due to disturbed metabolism because liver plays a key role in digestion and metabolism. It also has a significant role in maintaining blood glucose level thereby causes homeostasis of blood. Nausea and vomiting are the symptoms of disturbed functions of liver. All Acharya's mentioned the different Upadravas of Prameha. Upadravas means complications which produced by the same dosha of previous disease or the main disease can become a causative factor of that upadrava.^[11] In this case kaphapraseka (Nausea) and chardi/vaman (vomiting) were the symptoms present in the patient. Kapha praseka, and chardi/vaman are the updrava's of prameha. Piitaj Prameha also involves rakta dhatu dushti. And rakta dushti means dushti of raktavaha srotas and their moolasthanas well. So in this case it was found a border line alteration in LFT values but it was not a serious issue.

4. Burning micturation on & off, Persistent – It is due to high glucose level in the blood. It often causes infection in urinary tract. Acharya Charaka and Sushruta mentioned the mutra daha as a roopa (symptom) of haridra meha a subtype of pittaj prameha. Shloka by acharya Charaka is given below:

“हारिद्रमेही कटुकम् हरिद्रासन्निभम् दाहात् ॥१४॥”

5. General weakness – As body tissues cannot efficiently use the insulin they become unable to function properly. So body tissues cannot utilize glucose and it leads to weakness. Acharya Charaka in prameha nidansthan mentioned Dourbalya (weakness) as updrava of prameha.

6. Headache/dizziness and Feeling of fear

Due to weakness, he would be a feeling of fear. Because diabetes affects both physical and mental health. Nausea and vomiting may cause headache. In prameha dosha dushya samurchana there is dushti of Oja dhatu. Bhaya i.e. fear and dorubalya (weakness) are the symptoms of Ojo dushti.^[12]

Local examination:

As he had complaining that tingling numbness, burning and pain in the lower limb, his lower limb was examined. There was pitting oedema over both legs. On pricking there was a sensation of numbness. Hyperglycemia from uncontrolled diabetes can damage blood vessels in the legs. It leads to poor circulation and fluid accumulation thereby resulting in pitting oedema.

Investigation:

He was already investigated for HbA1c on 15/08/2024. It showed increase in reading and marked under poor control limit. So, he was not advised again for any blood glucose tests. After few days of treatment, he did HbA1c test to see the effect of treatment and it showed a positive shift to normal by ayurvedic treatment. Findings are already noted in result. **Glycosylated hemoglobin (HbA1C)** Long-term objective assessment of degree of glycemic control is better monitored by measurement of glycosylated hemoglobin (HbA1C). This is because the non-enzymatic glycosylation of hemoglobin takes place over 90-120 days, lifespan of red blood cells. HbA1C assay, therefore, gives an estimate of diabetic control and compliance for the preceding 3-4 months. Since HbA1C assay has a direct relation between poor control and development of complications, it is also a good measure of prediction of microvascular complications.^[1]

Pathogenesis of disease:

Samprapti of this case of pittaj prameha is like that, etiological factors cause increase in Pitta dosha (Kupita pitta) which then vitiates to bastigat medodhatu, mansadhatu and sharirgat kleda and it leads to Pittaj prameha.^[13] But prameha vyadhi involves all 3 dosha's (Vata, Pitta and Kapha) with specific predominance of any dosha.

Flow chart of Samprapti**Diagnosis:**

Though Prameha involved all 3 dosha dushti with predominance of kapha dosha dushti, however, on the basis of dosha which increased majorly than others due to their respective hetu sevana that type of Prameha is diagnosed. It should be decided by observing symptoms.

Table no. 17:- Diagnosis of Pittaja prameha- Haridra meha.

Symptoms	Ayurvedic terminology noted in prameha vyadhi	Prameha vyadhi correlation
Pain in legs while walking	Due to dourbalya	Poorvaroop
Numbness and tingling at bilateral lower limb	Kara-padayo suptata	Poorvaroop
Nausea and persistent vomiting	Kapha praseka, vaman	Pittaj Prameha updrava
Burning micturition on & off	Mutradaha	Haridra meha lakshan
General weakness	Dourbalya	Poorvaroop
Burning sensation to both feet and sole	Karapada daha/hasta-pada tala daha	Poorvaroop
Fear	Bhaya	Ojo kshaya lakshana

Prameha upadras (Diabetic complications): ^[13]

Kaphaj	Pittaj	Vataj
Avipaka	Basti mehanyo todo	Udavarta

Aruchi	Mushka avadaramam	Kampa
Chhardi	Jwara	Hrudgraha
Ati Nidra	Daha	Lolata
Kasa	Trishna	Shoola
Peenas	Amlako udgar	Nidranasha
	Murcha	Shosha
Kapha praseka ^[6]	Vidbheda	Shwasa- Kasa
	Vaman ^[6]	

Biological reference value for HbA1C test is as follows:

1. **Non-diabetic:** <5.7 %
2. **Pre-diabetic:** between 5.7 to 6.5 %
3. **Diabetic:** > 6.5 %

Hyperglycemia remains the fundamental basis for the diagnosis of diabetes mellitus. In symptomatic cases, the diagnosis is not a problem and can be confirmed by finding glucosuria.^[1] HbA1c of the patient was elevated to **more than poor control** and it was **10.4%** on 15/08/2024. Patient reached to this value means he was suffering by diabetes from so many days but maybe he was in asymptomatic phase or if any symptom was there, he might have ignored it. In between the time of investigation and initiation of treatment his symptoms got triggered and showed complications.

Hence on the basis of symptomatology and investigation report he was diagnosed as **uncontrolled type 2 diabetes mellitus with diabetic neuropathy**. According to ayurvedic criteria he was diagnosed as **Pittaj Prameha** with subtype **Haridra meha**.

Prognosis (Sadhya-asadhyatva of Prameha):

All acharya's said Pittaj Prameha is yapa means difficult to treat because of vishamkriyatvat. It means that, to reduce pitta dosha there is need of sheeta veerya dravyas (cool potency drugs) but it again increases meda kaphadi dushy (lipid/fat/kapha etc.). These meda-kaphadi dushya needs ushna veerya dravyas (hot potency drug) to diminish which again increases pitta dosha. But if there is fewer vitiation of kapha dosha and medo dhatu then pittaja prameha can be Sadhya (easy to treat). This Medo dhatu dushti can be identified by observing poorvaroops of prameha. Purvaroop like dantyadinam maladhyatvam explained as talugalajivha dantyeshu malotpatti by acharya Sushruta it means that accumulation of dirt in all parts of mouth like throat, tongue, teeth etc. This poorvaroop occurs by excessive vitiation of medo dhatu. In this patient medo dhatu is present but in less quantity so it showed symptom of mild coated tongue. This patient had investigated for lipid profile which showed normal results. His liver function test also showed a little bit changes. So this case of Pittaj Prameha became easy to treat. To reach this prognosis fine review of case with deep study is needed.

Ayurvedic intervention:

Shodhan and shaman are the 2 ayurvedic treatments mentioned for the management of prameha. Acharya Charaka stated that shodhan chikitsa should be conducted in sthula (Obese) and balvana pramehi (strong immunity). So this patient had given shaman therapy along with panchakarma therapy which boosts immunity of patient. Panchakarma treatment advised for patient during IPD period worked as like follows:

1. **Abhyanga:** He went through body massage by Ksheerbala taila. ^[14] Ksheerbala taila is mentioned by acharya Vagbhatt, is used here due to its rasayan property [immunity booster]. It is also useful in Vataroga to reduce pain.
2. **Awgaha Swedan:** In this procedure patient was asked to sit in a tub filled with hot water (42 degree temperature). It is one of the type of body steam.^[15] It relieves shoola (pain) and pacifies the diseases caused by vata and kapha dosha.^[16,17]
3. **MatraBasti:** Small amount of Punarnava taila basti was administered to the patient through rectum during IPD period for 9 days. Acharya vagbhatt mentioned that matra basti is useful in abalarugna (whose immunity/strength is low) as it promotes strength.^[18] It leads to easy elimination of mala (stool) and mutra (urine). Punarnava has Shophanut property (anti-inflammatory). ^[19] This patient had pitting edema at lower limb. So this therapy was given to boost immunity by reducing edema of lower limbs.

4. **Shirodhara:** Shirodhara is a form of independent snehana procedure, wherein involves gently pouring liquids over the forehead. In this patient shirodhara with Bramhi oil was performed. It performed to overcome his fear. Bramhi is said to be medhya rasayan. means it acts as immunity booster to brain. Thereby it helped to overcome his feeling of fear. ^[20]
5. **Lepam:** Local application of Dashmoola powder paste over feet had been done during IPD period daily. Absorption of drugs is taking place through body surface and provides the effect of herbs directly on the site of action. Dashmool (group of 10 herbs) are named as Shothahar Mahakashaya by acharya Charaka. ^[21] Shothhara means it reduces swelling. So to reduce pitting edema of patient rapidly, dashmoola was applied directly to lower limb.
6. **Kansyathali foot massage:** It was given to increase circulation in the lower limb thereby reduce numbness and tingling sensation.
7. **Neem-Karela therapy:** In this therapy patient was told to soak his feet in the paste of Nimba (Azadirachta indica) and Karvellaka (Momordica charantia). This is also a local therapy. It was used to reduce burning sensation in feet. Nimba and Karvellaka both have Sheeta virya (cool potency) and both are pittashamaka herbs. ^[22,23]

Shaman chikitsa (Palliative drugs):

It included Herbo-mineral formulations which act as pramehahar (Ant-diabetic) and rasayan (boost immunity). Formulations prescribed during IPD period and post-discharge along with ingredients and uses are given below.

1) Divya shakti powder –

Ingredients: Trikatu (Zingiber officinale, Piper nigrum, Piper longum), Triphala (Embllica officinalis, Terminalia chebula, Terminalia bellirica), Musta (Cyperus rotundus), Vidang (Embelia ribes), Laghu ela (Elettaria cardamomum), Tejpatr (Cinnamomum tamala), Lavang (Syzygium aromaticum), Trivrutta (Operculina turpethum), Saindhav (Rock salt), Dhanyak (Coriandrum sativum), Pippali mul (Piper longum root), Jeerak (Cuminum cyminum), Nagkeshar (Mesua ferrea), Dadim (Punica granatum), Brihat ela (Black cardamom), Hingu (Ferula asfoetida), Ajmoda (Apium graveolens), Sajjikshar (Sodium bicarbonate), Pushkarmool (Inula racemosa), Mishri (Rock sugar)

Indications: Boosts immunity and aids to treat indigestion

2) Capsule DM:

Ingredients: Aamragandhi Haridra (Curcuma amada), Guduchi (Tinospora cordifolia), Methika (Trigonella foenum), Shweta musli (Chlorophytum borivilianum), Nimba (Azadirachta indica), Karvellak (Momordica charantia), Jambu (Syzygium cumini), Bilva patra (Aegle marmelos leaves), Gudmar (Gymnema sylvestre), Shilajeet (Asphaltum)

Indications: All types of diabetes and all diabetic complications.

3) Madhumehanasaka syrup:

Ingredients: Karvellak (Momordica charantia), Jambu, Nimba (Azadirachta indica), Kirattikta (Swertia chirayta), Gudmar (Gymnema sylvestri), Kutaj (Holarrhena antidysenterica)

Indications: Diabetes mellitus, Diabetes neuropathy, Retinopathy, Hyperglycemia

4) Prameharoghar powder –

Ingredients: Kutaki (Picrorhiza kurrooa), Kirattikta (Swertia chirayta), Nimba (Azadirachta indica), Karvellak (Momordica charantia), Rasanjan (Berberis aristat), Amlika beej (Tamarind seeds), Kala namak (Black salt), Guduchi (Tinospora cordifolia), Shunthi (Zingiber officinale), Babul tvak and phal (Acacia Arabica bark and fruit), Sarpagandha (Rauvolfia serpentine), Trivang bhasma, Yashad bhasma, Revandchini, Guggulu (Commiphora mukul), Methika (Trigonella foenum), Jambu (Syzygium cumini), Karanj (Pongamia pinnata), Shilajeet, Haridra (Curcuma longa), Haritaki (Terminalia chebula), Indrayava (Holarrhena antidysenterica seeds), Vanshlochan (Bambusa arundinacea), Bibhitak (Terminalia Bellerica), Amalki (Embllica officinalis), Shweta musli (Chlorophytum borivilianum), Gudmar (Gymnema sylvestre)

Indications: All types of diabetes, controls blood sugar level, relieves urinary problems, improves immunity, useful in diabetic neuropathy and retinopathy

5) Nervine tonic syrup:

Ingredients: Ashwagandha (Withania somnifera), Musli (Chlorophytum borivilianum), Manjishtha (Rubia cordifolia), Haritaki (Terminalia chebula), Haridra (Curcuma longa), Rasna (Pluchea lanceolata), Vidari

(Pueraria) , Arjun (Terminalia arjuna), Musta (Cyperus rotundus), Trivritta (Operculina turpethum), Shweta chandan (Santalum album), Rakta chandana (Pterocarpus santalinus), Sariva (Hemidesmus indicus), Chitrak mula (Root of Plumbago zeylanica), Bramhi (Bacopa monnieri) , Shatavari (Asparagus racemosus), Shunthi (Zingiber officinale), Shatpushpa, Renuka (Calamus vattayila), Madhu (Honey)

Indications: Nerve disorder, numbness, insomnia, memory loss, bone disease, weakness

6) Tablet JS Diab:

Ingredients: Karvellak (Momordica charantia), Gudmar (Gymnema sylvestri), Paneer dodi (Withania coagulens), Jambu (Syzigiumcumini, Methika (Trigonella foenum-graceum), Nimba (Azadirachta indica), Kalmegha (Andrographis paniculata), Bilva (Aegle marmelos), Mamajjak (Enicostema littorale), Guduchi (tinospora cordifolia), Yashad bhasma, Vang bhasma

Indications: Diabetes, diabetes neuropathy, retinopathy

7) Tablet Immune pathy:

Ingredients: Nmba (Azadirachta indica), Guduchi (tinospora cordifolia), Haridra (Curcuma longa), Maricha (Piper nigrum), Twak (Cinnamomum tamala), Shunthi (Zingiber officinalis), Ashwagandha (Withania somnifera)

Indications: Immunity booster, weakness, liver disease, kidney disease, CA

8) Capsule LIV DS:

Ingredients: Bhumyamalki (Phyllanthus niruri), Kasmard (Cassia oxidentalis), Hinsra (Capparis sepiaria), Punarnava (Boerhavia diffusa), Guduchi (Tinospora cordifolia), Kakmachi (Solanum nigrum), Arjun (Terminalia arjuna), Zabuk (Tamarix gallica), Vidang (Embelia ribes), Chitrak (Plumbago zeylanica), Kutaki (Picrorhiza kurrooa), Haritaki (Terminalia chebula), Bhiringraj (Eclipta prostrate)

Indications: Liver disease, GIT, GERD, loss of appetite

9) Yakrit shothahar vati

Ingredients: Punarnava (Boerhavia diffusa), Marich (Piper nigrum), Pippali (Piper nigrum), Vidang (Embelia ribes), Devdaru (Cidrus deodara), Kushtha (Saussurea lappa), Haridra (Curcuma longa), Chitrak (Plmbago zeylanica), Haritaki (Terminalia chebula), Bibhitak (Terminalia bellirica), Aamalki (Emblia officinalis), Danti (Baliospermum montanum), Chavya (Piper retrofractum), Indrayava (seeds of Holarrhena antidysenterica), Pippali mula (root of Piper longum), Musta (Cyperus rotundus), Krishna jeerak (Carum carvi), Kayphal (Myrica esculenta), Kutaki (Picrorhiza kurrooa), Trivritta (Operculina turpethum), Shunthi (Zingiber officinale), Karkatshringi (Pistacia integerrima), Ajmoda (Apium graveolens), Mandoor bhasma

Indications: Deepan, Pachana, Rasayana

10) Syrup Telome:

Ingredients: Kumari (Aloe vera), Guduchi (Tinospora cordifolia), Bhiringraj (Eclipta alba), Aamalki (Emblia officinalis), Kutaki (Picrorhiza kurroa), Vidang (Embelia ribes), Chitrak (Plumbago zeylanica), Daruharidra (Berberis aristata), Kalmegha (Andrographis paniculata), Bhumyamalki (Phyllantyes niruri), Pudina (mint leaves), Tulsi (Ocimum sanctum), Pippali (Piper longum), Jeerak (Cuminum syminum), Punarnava (Boerrhvia diffusa), Bilva (Aegle marmelos), Ela (Cinnamomum cardamom)

Indications: Liver disease, GIT, metabolic disorder, cell rejuvenation

11) Tablet Dr. Sukoon:

Ingredients: Apamarga (Acharanthes aspera), Shatavari (Asparagus racemosus), Ashwagandha (Withania somnifera), Bramhi (Bacopa monnieri), Vacha (Acorus calamus), Shankhapushpi (Convolvulus pluricalis)

Indications: Sleeplessness, anxiety, headache, restlessness

12) Arogya vati:

Ingredients: Loha bhasma, Abhraka bhasma, Tamra bhasma, Aamalki (emblica officinalis), Bibhitak (Terminalia bellerica), Haritaki (Terminalia chebula), Chitrak (Plumbago zeylanica), Kutaki (Picrorhiza kurroa), Nimba (Azadirachta indica)

Indications: Deepan, Pachana, Rasayana

Diet and Exercise:

DIP diet plan was advised to him. This diet plan is helpful in managing disorders which caused by unhealthy lifestyle. This diet gives discipline to the patient's diet timing and it planned intelligently with how much quantity should be advised for salad and fruit. Formulas for quantity of fruits and salad are mentioned previously in DIP diet plan according to patient's weight. It can be helpful in diseases like diabetes, hypertension, thyroid, liver diseases, etc.

Following pathy-apathy aahar (Healthy and unhealthy diet) was advised to patient which is explained by acharya Bhavmishra.

Pathy aahar:

Godhuma (Wheat), chanaka (Chickpeas), aadhaki (Pigeonpea), kulath (Horse gram), purana anna (Old grains/millet), tikta shaka (Bitter taste vegetables), yavanna vikriti (Barley recipes), mudga (Green gram), shali (Rice)

Varjayeta:

Madira (Alcohol), taila (Oily food), takra (butter milk or curd), ksheera (milk), ghrita (ghee), guda (Jaggery), amla (sore taste food), ikshurasa (Sugarcane juice), pishtanna (Starch food), anoop mans (non-veg)

Exercise is more necessary in diabetic patient as acharya Charaka mentioned in the treatment of prameha that, "vyayamyogai vividhai" means different type of exercises should do.

Further Scope of Advance Research :-

This case study is of great value in its own as it gave a tremendous result in uncontrolled type 2 DM with its complication named diabetic neuropathy and this result is just within 74 days without any adverse effect by ayurvedic therapeutics. But this is a single case study with diabetic complication. There is a need to collect data on large scale to analyze the average result of ayurvedic therapeutics in type 2 DM along with its all type of complications and not only the diabetic neuropathy. This collective data will be a proof and be useful to treat the patients of DM successfully with ayurvedic therapeutics.

Conclusion :-

This case is of uncontrolled type 2 diabetes mellitus and diagnosed as pittaj prameha-Haridra meha according to ayurveda. Overview of the case concludes that though the case is of uncontrolled diabetes came with diabetic complication also, he/she can be cured and get reversed to normal within short period. In this case after total 74 days of ayurvedic treatment it reduced from 10.4% to 4.9% successfully and it is within border line range of non-diabetic HbA1c. This treatment does not show any adverse effects.

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