

Ayurvedic Management of Pittaja Prameha W.S.R. to Type-2 Diabetes mellitus: A Case Study

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ABSTRACT:

Background:

Diabetes Mellitus is one of the lifestyle disorders which has worldwide concern. Diabetes is a major growing health challenge in India, affecting an estimated 8.7% of the population between the ages of 20 and 70. According to *Ayurveda*, *Madhumeha* a type of *Vataj Prameha* typically indicates Diabetes Mellitus; however, in this case, the patient's symptoms were identified as the typical *Pittaj Prameha* symptoms. The association between *Pittaj Prameha* and *Madhumeha* is explained in the *Ashtanghridaya* literature as follows: *Pittaj Prameha* can progress into *Madhumeha* if left untreated. This report describes a case of successful reversal of *Pittaj Prameha* in a patient with a high HbA1c percentage of 8.64%. The female patient of age 54 yrs arrived at the OPD and was completely unaware of her illness. Following investigations and examination, she was diagnosed with *Pittaj Prameha* (Type 2 Diabetes Mellitus) with its complications. Internal medications such as *Vasant kusumakar rasa*, *Rodhrasava*, decoction of *Nimb*, *Patol*, *Amrut* and *Amalki* was given. Follow up taken for 6 months after the treatment and no complaints or adverse effects were noted.

Purpose:

To evaluate the efficacy of *ayurvedic* treatment regimen in *Pittaj Prameha*. (Diabetes Mellitus)

Observation and conclusion:

Patient had significant relief in his symptoms with considerable changes in HbA1c reports.

Keywords: *Prameha, Pittaj Prameha, Vasant kusumakar rasa, Diabetes, HbA1c*

INTRODUCTION:

Diabetes is one of the most common non-communicable diseases (NCD). It is a chronic metabolic illness with a common risk of hyperglycemia that is brought on by poor protein, fat, and carbohydrate metabolism. Every day, the prevalence of diabetes rises. Approximately 90% of cases of diabetes are currently classified as type 2 diabetes, which is more prevalent. Data from the International Diabetes Federation (IDF) from 2014 indicate that 387 million people worldwide suffer from diabetes. According to a WHO analysis, 32 million Indians had diabetes within a year after 2000. The WHO estimates that by 2030, India would be home to about 80 million diabetic people, or 20% of the world's total number of diabetics.¹

In the majority of countries, diabetes has become one of the leading causes of preventable disease and death. About 3.2 million deaths annually and six deaths every minute are attributed to diabetes. Vascular complications: every microvessel and major blood vessel controls every part of diabetic patients in India because of the late syndrome symptoms and delayed analysis. As a result, there are numerous issues when a diagnosis is made. One of the main costs associated with diabetes foot among people from India. In nursing homes, neuropathy is the most prevalent long-term diabetes issue, affecting as many as 50% of patients.

Madhumeha's signs and symptoms are mainly connected to diabetes (DM). Furthermore, because of its pathophysiology, which includes decreased metabolism of fats (*Medas*), proteins (*Mamsa*), and carbohydrates (*Kapha*), it is similar to diabetes mellitus. Insulin is not mentioned in Ayurveda; instead, it is explained in terms of *agni* damage, which is comprised of all the hormones and enzymes that are in charge of the body's metabolic processes. *Prabhuta mootrata* (frequent and ordinary urination) and *Avila mootrata* (cloudy urine) are two characteristics of *Prameha*, which is defined in *Ayurvedic* science as a complex set of scientific problems whose aetiology includes *bheeja doshaat* (genetic predisposition) and *Apathya nimittaja* (eating habits inappropriate and lifestyle). The Ayurvedic descriptions of *Kaphaja Prameha* and *Vataja Prameha* consist of Type II Diabetes and *Sahaja Prameha* consists of Type I Diabetes. One of *Prameha* has scientific manifestations, which are very often described in allopathic drugs for the treatment of metabolic syndrome.²

In Ayurveda, diabetes mellitus (DM) is referred to as *Madhumeha* or *Kshaudrameha*, and the treatment for uncontrollably high urine is actually honey-sweet. *Madhumeha* is listed under the twenty *Prameha* in the *Ayurvedic* scripture. *Astamaharoga Charaka* protects *Madhumeha*, demonstrating the seriousness of the illness.

Diabetes is the clearest example of a lifestyle disorder. Sedentary lifestyles and rigorous intellectual regulations have led to the development of numerous excruciating diseases, including diabetes. Type 2 diabetes, also known as *madhumeha*, is a syndrome that has the potential to be very dangerous and only becomes worse with time. Many vital systems will continue to be attacked by the environment if they are not adequately managed or handled. *Shukra* and *Shonita's* terminal illnesses are the cause of *madhumeha*.³

Upadrava ability occurs after the appearance of major diseases. *Prameha upadrava* can be studied under the following titles: i. *Samanya* and *Vishesha* ii. In fact, *Charaka* and *Bhela* have described the most common *Upadravas*. Now they are not specifically categorized as *Kaphaja*, *Pittaja* and *Vataja* like *Sushruta*, *Vagbhata* and *Bhavaprakasha*, they clearly describe them.⁴

Samanya upadravas Thirst, diarrhea, fever, burning sensation, weakness, anorexia, indigestion, improvement and deterioration of more than one muscle tissue. *Vishista upadravas* *Kaphaj prameha updrava* Flies are too hot for the body, tired, underdeveloped muscle tissue, nasal mucositis, loose body parts, indigestion of taste, excessive salivation, vomiting, excessive drowsiness, coughing and difficulty in breathe. *Pittaj prameha updrava* Rupture of the scrotum, pain in bladder, penis and heart, belching, fever, diarrhea, loss of taste, vomiting and sleep, pale complexion, yellow stools, urine and eyes.⁵

Trishna (Thirst): Defined as *Paneeya Sevana Iccha* (polydipsia), *Pipasa* is an equivalent for it. It is one of *Prameha's* fundamental *Upadrava*. *Atisara* (Diarrohea) is referred to in the classes *Samanya* and *Vishesha Upadrava*, separately. In *Vishesha*, it is grouped under *Pittaja Upadrava*. *Jwara* (Fever is because of *Pitta Pradhanyata* in *Tridoshas*. In *Prameha* there is *Dhatu Kshaya*, which likewise prompts *Ojonasha*. Accordingly, *Vyadhikshamatva* (resistance) to *Jwara* will primarily diminish. *Daha* (Consuming sensation) is *Pittaja Nanatmaja Vikara*. As indicated by *Sushruta*, *Daha* showed due to *Dhatukshaya*. There is outrageous *Dhatukshaya* in *Prameha*, which is the fundamental justification *Daha*, particularly in *Hasta* (palm) and *Paada* (sole). *Daurbalya* (Shortcoming) will be *Manasika Daurbalya* and *Mamsopachaya* (ill-advised muscle sustenance) as the end-product of *Dhatusara Vahana* in the *Kleda* through *Mutra* structure. *Avipaaka* (Dyspepsia): This is a condition for the most part because of *Rasa* and *Rakta Pradosha*, was found with the assistance of *Vyana Vata Dusti* (pressing or turning torment). *Alasya* (Sluggishness): This is because of the final product of *Kapha's Mandaguna* and *Dourbalya*. There will be a longing for an ideal touch, disappointment with torment, and an absence of energy for work.⁵

AIM:

To evaluate the efficacy of *ayurvedic* therapeutic regimen in the management of *pittaj Prameha* W.S.R. to Diabetes Mellitus.

OBJECTIVES:

- To relieve the symptoms of the patient.
- To evaluate the efficacy of treatment modality chosen.
- To see the adverse effects of the therapeutic regimen.

A CASE REPORT:

A 54 years old female, previously non diabetic came with chief complaints of severe tiredness from last 3-4months. He had experienced gradual weight loss for upto 6kgs from last few months. She also complaint of increased frequency of burning micturition (polyuria), excessive sweating with body odor (*swedoangagandhata*), increased thirst (polydipsia), increased hunger (polyphagia). She was suffering from increased frequency of yellow coloured urine (*Pitamutrata*). She also complained of dryness of mouth, throat and palate (*Shosha*), sour taste in mouth (*Amlasayata*), burning sensation of hands and feet (*Hastapadataladaha*). She said her sleep has been disturbed due to the frequent episodes of micturition at night.

The patient was average built, with weak physic with strong maternal and paternal history in the past 12 years of diabetes mellitus. Appetite and bowel movements were increased. She had no other known diseases, and was not under any medications. There was no history of any interventions for the presenting complaints.

History of present illness:

Patient was completely fine 4 months ago. Then she developed the above said complaints for which she came in our opd for further treatment.

History of past illness:

No history of any chronic illness previously.

Personal history: Married, non- smoker, non-alcoholic, irregular food habits, sedentary life style, vegetarian by diet, fond of fermented, sweet and fried food, stressed, disturbed sleep and bowel movements twice a day.

Family history: Father was diabetic from last 12 years and mother was diabetic from last 10years with no other chronic ailments.

Table 1: *Atura bala pramana parikshana* (Examination of strength of patient)

<i>Prakriti</i> (Body constitution)	<i>Pittakaphaj</i>
<i>Sara</i> (Tissue quality)	Mild (<i>heena</i>)
<i>Samhanana</i> (body built)	Mild (<i>heena</i>)
<i>Pramana</i> (anthropometry)	Weight- 39kgs (<i>heena</i>), height- 147. 3cms
<i>Satmya</i> (adaptability)	Average (<i>madhyam</i>)
<i>Satva</i>(mental strength)	Mild (<i>heena</i>)
<i>Aharashakti</i> (food intake and digestion capacity)	Strong (<i>uttam</i>)
<i>Vyayamashakti</i>(exercise capacity)	Mild (<i>heena</i>)
<i>Jivha</i> (Tongue)	Coated (<i>samma</i>)
<i>Vaya</i> (age)	Adult (<i>madhyam</i>)
<i>Desha</i> (habitat)	Temperate region

SYSTEMIC EXAMINATION:**CNS:** conscious and oriented to time, place and person**CVS:** S1 & S2 sounds are audible. There are no added sounds heard.**RS:** bilateral air entry is equal**Table 3: Assessment gradation:**

S. No.	Observation	Parameters	Gradation
1.	Polyuria (Frequency of micturition)	< 5 times	Grade 1
		5-10 times	Grade 2
		>10times	Grade 3
2.	Polydipsia (Increased thirst)	Present	Grade 1
		Absent	Grade 0
3.	Polyphagia (Increased appetite)	Present	Grade 1
		Absent	Grade 0
4.	Increased sweating with body odour	Present	Grade 1
		Absent	Grade 0
5.	Burning hands and feet	Present	Grade 1
		Absent	Grade 0

DIAGNOSTIC ASSESSMENT-

Investigation	Before treatment	After treatment
Hb1c	8.64%	5.95%

DIAGNOSIS- *Pittaj prameha***THERAPEUTIC REGIMEN:****Table 4: Internal treatment regimen**

S. No.	Therapeutic regimen	Dosage	Duration
1.	<i>Vasant kusumakar rasa</i>	250mg	1 month
2.	<i>Chandraprabha vati</i>	250mg BD	2 months
3.	<i>Rodhrasava</i>	15ml BD with lukewarm water	1 months
4.	<i>Patolpatra+ Nimbatwak+ Amalki+ Amruta decoction</i>	20ml BD	2 months

Follow-up

Healthy diet and exercise were advised with internal ayurveda medicines. Following a three to six months follow-up after every 1 month was advised and noticed the symptoms were reduced.

OBSERVATION & RESULT

Table No.5 Observations made during follow-up visits

S. No.	Observation Parameter	Gradation (before treatment)	Gradation (after 1 month)	Gradation (after 2 month)
1.	Polyuria (Frequency of micturition)	3	2	1
2.	Polydipsia (Increased thirst)	1	0	0
3.	Polyphagia (Increased appetite)	1	1	0
4.	Increased sweating with body odour	1	1	0
5.	Burning hands and feet	1	0	0

During the course of treatment: patient got significant relief from polydipsia and burning hands and feet after 1 month of treatment.

At the end of treatment (after 2 months): patient got complete relief from his previous complaints. Complete relief from pain, swelling, tenderness and crepitation.

DISCUSSION:

Vasant Kusumakar Rasa is often used in the management of diabetes (*Madhumeha*), among other conditions. It is known for its rejuvenating (*Rasayana*) properties and is highly regarded for its effectiveness in balancing blood sugar levels, improving insulin sensitivity, and preventing complications related to diabetes. The formulation contains ingredients like *Swarna Bhasma* (Gold Calx) and *Rasa Sindoor*, which are believed to improve glucose metabolism. By nourishing and rejuvenating tissues, it is believed to help prevent complications associated with diabetes, such as neuropathy and nephropathy. It is also considered a powerful general tonic that supports overall health, which is important for individuals with diabetes who may experience general weakness and fatigue. It does work as an insulin sensitizer to raise peripheral glucose utilisation or operate on the pancreas to induce insulin release.^{6,7}

Chandraprabha Vati is composed of several herbs and minerals, with the primary components being *Shilajit*, *Guggul*, and several other plant extracts. The combination is known for its rejuvenating, anti-inflammatory, and diuretic properties, which are beneficial in managing metabolic disorders like diabetes. It helps in regulating blood sugar levels by enhancing insulin sensitivity and reducing glucose absorption in the intestines. This helps in managing both Type 1 and Type 2 diabetes.⁸

The ingredients such as *Shilajit* and *Guggul*, are known for their anti-inflammatory and antioxidant properties, which can improve insulin sensitivity.⁹ Diabetes often affects the kidneys, leading to diabetic nephropathy. *Chandraprabha Vati*, being a diuretic, supports kidney function by promoting the elimination of toxins and preventing urinary infections.¹⁰ Obesity is a common issue in Type 2 diabetes. It helps in managing weight due to its metabolic-boosting properties.^{11, 12}

Rodharasav is an Ayurvedic formulation known for its medicinal properties, primarily used for managing various ailments including digestive issues, liver disorders, and general debility. It may have potential benefits for diabetes due to its general tonifying and metabolism-enhancing effects. *Rodharasav* may improve digestion and metabolism, which is crucial for managing blood sugar levels in diabetes. Better digestion helps in the efficient breakdown of food and absorption of nutrients, reducing the risk of blood sugar spikes. Its antioxidant properties, which can help reduce oxidative stress—a key factor in the progression of diabetes and its complications. It might help manage complications related to poor circulation in diabetic patients, such as neuropathy.¹³

The combination of **Patol (Trichosanthes dioica)**, **Nimb (Azadirachta indica)**, **Amalki (Emblia officinalis)**, and **Amruta (Tinospora cordifolia)** is used in *Ayurveda* for managing diabetes. These herbs have individual and synergistic effects that contribute to blood sugar regulation, insulin sensitivity, and overall health maintenance in diabetic patients.

Patol aqueous extract-treated diabetic rats displayed an increase in body weight compared to the diabetic control group, which may be related to its preventive impact against reversal of gluconeogenesis, or muscle atrophy. Improved insulin secretion and glycemic management may be the cause of the reversal of gluconeogenesis. It also supports liver function, which is crucial in glucose metabolism.^{14, 15}

Nimb enhances insulin sensitivity and has been shown to reduce blood glucose levels by speeding up the pancreas's adequate production of insulin, which triggers the glucose transporters to deliver glucose to the cells for efficient utilization, or it may be due to the extract's capacity to regenerate beta cells, which will then produce the necessary amount of insulin to instruct the glucose transporters to deliver glucose to the cells. It is rich in antioxidants, which help in reducing oxidative stress—a key factor in diabetes complications.^{16, 17}

Amalki, also known as *Amla*, is rich in Vitamin C and has demonstrated antidiabetic properties by improving insulin secretion and glucose uptake. It also reduces oxidative stress and inflammation, which are linked to diabetes complications.^{18, 19}

Amruta is well-known for its hypoglycemic effect and helps regulate blood sugar levels as it contains alkaloids (Magnoflorine, Palmetine, Jatrorrhizine), tannins, cardiac glycosides, flavonoids, saponins, etc. Alpha-glucosidase activity was investigated in the crude extract of the stem in ethyl acetate, dichloromethane (CDM), chloroform, and hexane.²⁰ It modulates the immune system, which can help in managing diabetes-related complications.^{21, 22}

CONCLUSION:

Based on the clinical observations, it can be said that holistic approach in treating *Pittaj Prameha* i.e. Diabetes Mellitus II produces significant relief in complaints and notable changes in HbA1c reports in two months of treatment.

No worsening of the condition and adverse effects were noted during or after the treatment. Moreover treatment is feasible and cost-effective.

FURTHER SCOPE OF STUDY:

- Further clinical trial with more sample size can be done in order to evaluate the efficacy of this particular regimen.
- Management of Diabetes Mellitus without any adverse effects.
- Avoidance of allopathetic medicines and expensive treatments.

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