

**AYURVEDIC REVIEW ARTICLE ON MADHUMEHA W.S.R  
DIABETES MELLITUS**

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**ABSTRACT**

The present era is full of chaos, stress and strain due to lifestyle modification, change in dietary habits, urbanization and industrialization. This has led in the upsurge of many diseases and one of them is *Prameha*. In *Ayurveda* classics *Madhumeha* and *Prameha* share a common aetiology as *Madhumeha* is one of the subtypes of *Vataja Prameha*. *Prameha* is considered as *Kapha Pradhan Vyadhi*, the aggravated *Kapha* along *doshas* is responsible for the clinical manifestation of *Prameha*. The common symptoms produced on manifestation of the disease are *Prabhutmutrata*, *Avilmutrata*. In *Madhumeha* the specific characteristic of urine is sweet, *rooksha* consisting of *Oja* and it resembles with honey. According to various *Acharyas*, all types of *Prameha* if not resolved properly on time will ultimately convert into *Madhumeha* India is set to emerge as the diabetic capital of the world. Diabetes results from a complex interaction of genetic, factors environmental, and lifestyle factors

resulting in insulin resistance in peripheral tissue or insulin secretory defect of beta cell (type 2 diabetes) or an absolute insulin deficiency because of destruction of beta cell by an autoimmune process (type 1 diabetes) resulting in chronic hyperglycaemia with altered carbohydrate, protein and fat metabolism. 90% of the total known diabetic cases are of type 2 DM. The common symptoms of hyperglycaemia include polyuria, polydipsia, blurry vision, weight loss, fatigue, frequent superficial infections (vaginitis, fungal skin infections) and

slow healing of skin lesions after minor trauma. Treatment modalities includes shamana and shodhana chikitsa which are given by different Acharyas. Details will be discussed in full paper.

**KEYWORDS:** Prameha, Madhumeha, Diabetes, Vata, Kapha dosha.

## INTRODUCTION

The characteristics outlined in *Ayurvedic* texts for the condition known as "*Prameha*" exhibit similarities with the symptoms of diabetes mellitus. The etiological factors mentioned for *Prameha*, including the dominance of sweet (*Madhura*), sour (*Amla*), and salty (*Lavana*) tastes in the diet, as well as lifestyle habits such as excess eating and excessive sleep, bear resemblance to modern causes of diabetes like the consumption of carbohydrate-rich foods, sweet substances, and sedentary lifestyles leading to obesity. The *Ayurvedic* texts describe the *Samprapti* of *Prameha* as involving the *Tridoshas* and specific *Dooshyas*, which include *Rasa*, *Rakta*, *Mamsa*, *Meda*, *Majja*, *Vasa*, *Shukra*, *Oja*, *Lasika*, and *Kleda*. *Prameha* is categorized as a disorder originating from the imbalance of all three *Doshas*, *Ayurvedic* experts have primarily highlighted the disturbance in *Kapha Dosha* and the consequent increase in *Meda* as pivotal factors. They have also stressed the significance of addressing sluggishness in the metabolic processes of *Meda Dhatu* and the associated *Kapha Dosha* imbalance. Hence, an effective approach to mitigate this progression necessitates the formulation of remedies that act on the level of *Dhatwagni* to rectify the imbalance and counteract the effects of aggravated *Kapha Dosha* and excessive *Medo Dhatu*. Madhumeha and diabetes mellitus are interlinked to each other in various ways.

## REVIEW OF LITERATURE

A detailed screening and reference pertaining to mentioned disease and drugs as mentioned in classical *Ayurvedic* texts like *Charak Samhita*, *Sushrut Samhita*, *Ashtang Hridaya*, *Bhaisjaya Ratanwali*, *Yogaratanakar* etc and classics of modern medicine, internet, authentic medical research journals and manuscripts will be compiled in this study.

## DEFINITION OF PRAMEHA

तत्राविलप्रभूतमूत्रलक्षणाः सर्व एव प्रमेहा भवन्ति।<sup>[1]</sup>

*Prameha* refers to the condition of frequent and abundant urination accompanied by turbidity.

सर्व एव प्रमेहा मूत्रादिमाधुर्ये मधुगंध सामान्यात पारिभाषिकी मधुमेहोख्या लभन्ते<sup>[2]</sup>

*Madhumeha* is a medical disorder in which the individual passes urine that bears resemblance to honey in terms of its qualities, such as having a taste of astringent and sweet, being dry in nature, having a color akin to honey, and the body taking on a sweet smell.

### CLASSIFICATION OF PRAMEHA

इह खलु निदानदोषदूष्यविशेषेभ्यो विकारविघातभावाभावप्रतिविशेषा भवन्ति ।

दोषदूष्याविशेषेऽपि तत्संयोग विशेषतः । मूत्रवर्णादि भेदेन भेदो मेहेषु कल्पयते ॥

In the *Ayurvedic* treatises, the ailment *Prameha* was categorized depending on the prevailing *Dosha*. *Acharya Charaka* and *Acharya Sushruta* have expounded that while all forms of *Prameha* originate from an imbalance of the three *Doshas*, it is still feasible to classify them in the following manner:

- 1) Etiological Classification
- 2) Clinico-pathological Classification
- 3) According to Body Constitution
- 4) On the basis of prognosis

### General Nidana of Prameha

आस्यसुखं स्वप्नसुखं दधिनि ग्राम्यौदकानूपरसाः पयांसि ।

नवान्नपानं गुडवैकृतं प्रमेहेहेतु कफकृच्च सर्वम् ॥<sup>[3]</sup>

### Etiological Factors Related to Manasa

Psychological elements such as stress, anger, and anxiety can significantly contribute to the causation of *Apathyanimittaja Prameha*. *Acharya Charaka* has also included psychological factors like *Udvega* (anxiety), *Shoka* (grief), and *Abhighata* (trauma) among the causative factors when describing the *nidana* (causes) of *Vataja Prameha*.<sup>[4]</sup>

**Madhumeha:** *Madhumeha* occurs when the aggravated *Vata*, owing to its dry and rough qualities, naturally alters the inherently *madhura rasa* of *Oja* into *kashaya rasa*. This transformed substance is then transported into the *Mutrashaya* giving rise to the condition of *Madhumeha*.

*Charaka*, in his *Nidanasthana*, elucidated that when causative factors exacerbate *Vata Dosha* in an individual already afflicted with *Prameha*, it results in a disturbance of *Vata*. This

aggravated *Vata* subsequently drives the *Dhatus* downward, affecting the *Basti*. *Vata*, characterized by its dry and rough qualities, transforms the inherently *madhura rasa* of *Oja* into *kashaya rasa*. This altered, *Kashaya rasa* based *Oja* is then excreted through the *Mutravaha Strotas*, giving rise to the condition known as *Madhumeha*.

ओजः पुनरमधुरंस्वभावं तद् यदा रौक्ष्यादवायुः कशायत्वेनाभिसंसृज्य मूत्राशयेअभि वहति तदा मधुमेहं करोति ।

### Sign and symptoms of *Madhumeha*

ओजः पुनरमधुरंस्वभावं तद् यदा रौक्ष्यादवायुः कशायत्वेनाभिसंसृज्य मूत्राशयेअभि वहति तदा मधुमेहं करोति <sup>[5]</sup>

In the context of the symptoms manifested in *Madhumeha*, patients excrete urine that possesses both *Kashaya* and *Madhura rasa*, *Pandu* and *Rooksha* in quality. Regarding *Charaka's* assertion, *Gangadhara* suggests that the inherent "*Madhura Rasa*" of *Oja* transforms into "*Kashaya Rasa*" due to the drying properties of *Vata*. *Chakrapani*, on the other hand, proposes that *Vata*, through its drying nature, separates *Oja* from the body, rendering it *rooksha* and transporting it to the *Mutrashaya*. It is the unique influence of *Vayu* that imparts the astringent quality to urine, making it *Kashaya*.

Additionally, in *Charaka Samhita*, there is a reference to *Ojomeha*, which is synonymous with *Madhumeha* but signifies a more severe depletion of *Dhatus* due to the *upshoshan guna* of *Vayu*. In *Chakrapani's* commentary, it is clarified that it is the *apara Oja*, vitiated by *Vayu*, that undergoes transformation into *Kashaya rasa* and is excreted through urine in the case of *Madhumeha*. A distinguishing characteristic of *Madhumehi* is the profound depletion of *Dhatus* due to the desiccating influence of *Vayu*.

स चापि गमनात् स्थानं स्थानादासनमिच्छन्ति ।

आसनाद् वृणुते शय्यां शयनात् स्वप्नमिच्छति ॥

*Acharya Sushruta* has provided insights into the psychosomatic condition of a *Madhumehi* patient. According to his observations, a *Madhumehi* individual experiences a continuous sense of restlessness. When walking, they yearn to stand still; when standing, they desire to

sit down. While sitting, they long to recline, and when lying down, the urge to sleep becomes predominant. In essence, a *Madhumehi* patient constantly feels fatigued and tends to choose the less active option at each juncture, favoring stillness over movement, sitting over standing, reclining over sitting, and sleep over wakefulness.<sup>[6]</sup> This characteristic pattern has been described as "*Panchavidhakriya-Shrayalinga*" by *Dalhana* in reference to the aforementioned passage.

#### ❖ *Updrava of Madhumeha*

उपेक्षयाऽस्य जायन्ते पिडकाः सप्त दारुणाः । विद्रधि चेति सप्तमि ॥

*Acharya Charaka* elucidated the occurrence of *Pramehapidika* as a complication arising from *Madhumeha*. These *Pramehapidika*, characterized as carbuncles, boils, or abscesses, stem from a lack of awareness regarding the condition of *Madhumeha*. They tend to develop in diabetic patients over an extended period due to heightened susceptibility to infections. *Pramehapidika* primarily manifest on the bodies of diabetic individuals, particularly in areas rich in adipose tissue.

#### Treatment of Madhumeha

दुर्विरेच्या हि मधुमेहिनो भवन्ति मेदोऽभिव्याप्तशरीरत्वात् तस्मातीक्षणमेतेषां शोधनं कुर्वीत ।

- **Shodhana:** This approach is recommended for *Avaranjanya Madhumeha*, and the choice between *Vaman* (emesis) and *Virechana* (purgation) should be based on the predominant *dosha*. In the case of *Madhumeha*, where there is a substantial layer of fat (*Meda*) in the patient's body, *Tikshna Virechana* is specifically advised due to its ability to address this issue effectively.
- **Shamana-** *Acharya Charaka* suggests that *Tarpana*, a nourishing therapy, should be administered for *Dhatukshayajanya Madhumeha*. The treatment focus should be on reducing the aggravated *Vata dosha*, making it particularly useful for *Vataja Prameha*.
- **Rasayana Chikitsa-** *Madhumeha* is characterized by *Ojakshaya*, which disrupts the quality and functions of all *Dhatu*. Therefore, *Rasayana* therapy is highly beneficial in treating *Madhumeha*. However, it is essential to administer *Rasayana* therapy after *Shodhanakarma* to enhance the effectiveness of the overall treatment. *Acharya Sushruta* and *Vagbhata* have described the use of *Shilajeet* in *Madhumeha* as a *Rasayana Chikitsa*. According to *Vagbhata*, *Shilajeet* is a potent and rejuvenating substance that can yield significant benefits, even in cases of *Madhumeha* that are considered incurable.

उपयुज्य तुलामेवं गिरिजादमृतोपमात्। वपुवर्णबलोपेतो मधुमेहविवर्जितः ।।

Use of 'Suvarna-makshika, Rajatamakshika and Tuvaraka taila' should be done in Madhumeha.

### Diabetes Mellitus

It is a major public health problem that is approaching epidemic proportions globally. Diabetes results from a complex interaction of genetic, environmental, and lifestyle factors resulting in insulin resistance in peripheral tissue or insulin secretory defect of the beta cell (type 2 diabetes) or an absolute insulin deficiency because of destruction of beta cell by an autoimmune process (type 1 diabetes) resulting in chronic hyperglycaemia with altered carbohydrate, protein and fat metabolism.<sup>[7]</sup>

### Showing Criteria for Diagnosis<sup>[8]</sup>

HbA1C >6.5% Or	The test should be performed in a laboratory using a method that is NGSP certified and standardized to the DCCT assay.
FPG >126 mg/dL (7.0 mol/L) Or	Fasting is defined as no caloric intake for at least 8h.
2-h plasma glucose > 200mg/dL (11.1mmol/L) during an OGTT Or	The test should be performed as described by the WHO, using a glucose load containing the equivalent of 75gm anhydrous glucose dissolved in water.
In a patient with classic symptoms of hyperglycemia or hyperglycemic crisis, a random plasma glucose >200 mg/dL (11.1 mmol/L). In the absence of unequivocal hyperglycemia, result should be confirmed by repeat testing.	

**Clinical features of diabetes mellitus (DM)** commonly encompass a range of presenting symptoms, including polyuria (increased urination), polydipsia (excessive thirst), unintentional weight loss, fatigue, weakness, blurred vision, heightened susceptibility to superficial infections, and delayed wound healing.

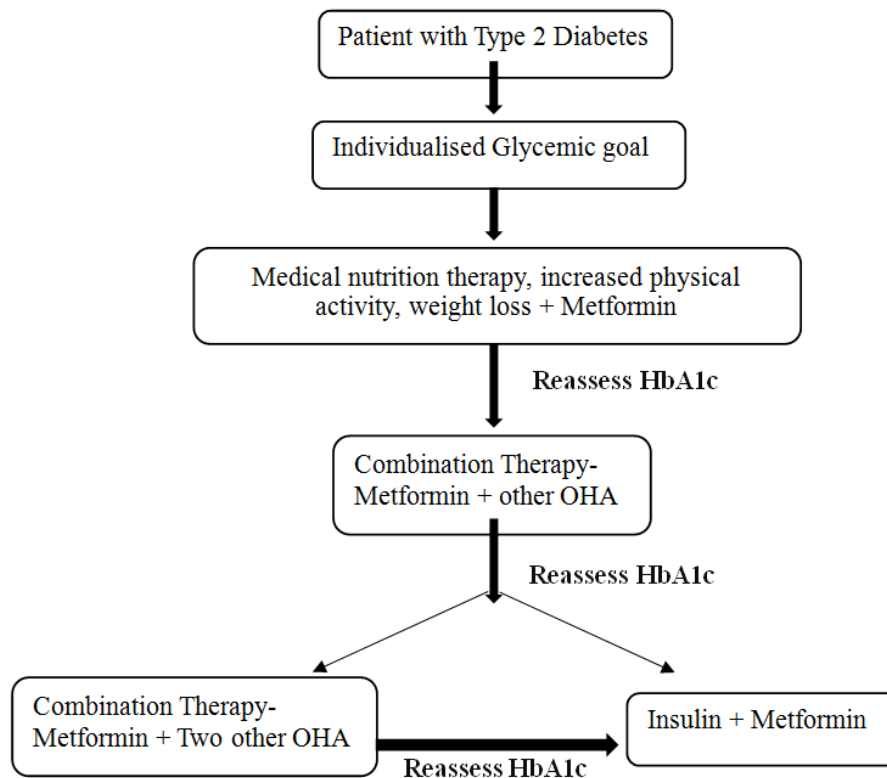
### Showing complications of Diabetes Mellitus<sup>[9]</sup>

Acute Complications	Late Complications	Infections
1.Diabetic ketoacidosis 2. Hyperosmolar coma 3. Hypoglycemia	1. Retinopathies 2. Cataract 3. Glaucoma 4. Nephropathy 5. Coronary artery disease 6. Cerebrovascular disease 7.Peripheral vascular disease	1. Skin infections 2.Pulmonary tuberculosis 3. Acute pyelonephritis 4. UTI 5. Vaginal moniliasis 6. Gastrointestinal (Gastro paresis,

	8. Neuropathy 9. Diabetic foot / ulcers.	Diarrhea
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## MANAGEMENT OF DIABETES MELLITUS<sup>[10]</sup>

### Illustration 3: Showing Glycemic management of type 2 diabetes



Agents that can be combined with metformin include insulin secretagogues, thiazolidinediones,  $\alpha$ -glucosidase inhibitors, DPP-IV inhibitors, GLP-1 receptor agonists, SGLT2 inhibitors, and insulin.

There are three management approaches: dietary modification by itself, dietary adjustments combined with oral hypoglycemic medications, and dietary modifications in conjunction with insulin therapy. Additionally, it's essential to consider lifestyle modifications as they play a crucial role and should be adapted accordingly.

## DISCUSSION AND CONCLUSION

In our society Diabetes is increased day by day. Madhumeha can be correlated with Diabetes mellitus according to cause and symptoms. It is not permanently curable disease; it is a lifestyle modification disease so we should mainly focus on the diet and our daily routine activities to combat this disease. It is not a single disease but myriad of many diseases and complications. Our government also doing some projects on this for proper treatment and



least complication from the medicine. So, it is our moral duty for proper take care of Diabetes patients and help them to overcome form this.

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