



Role of Ayurveda in The Management of Madhumeha - A Review

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Citation of this Article: Dr. Nityanand Sharma, Dr Anjana Sharma, Dr Gargy Sharma, Dr Anand Sharma, “Role of Ayurveda in The Management of Madhumeha - A Review.” IJMSAR – June – 2024, Vol. – 7, Issue - 3, Page No. 39-46.

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Type of Publication: A Review Article

Conflicts of Interest: Nil

ABSTRACT

Ayurveda describes Madhumeha as one of the *Vataj Prameha* kinds, and according to the disease's etiopathogenesis, clinical characteristics, and prognosis, it is compared to diabetes mellitus. The World Health Organization's list of the most prevalent lifestyle disorders includes cardiovascular diseases (CVDs), diabetes mellitus, COPD, cancer, asthma, diseases of the digestive system (GERD, peptic ulcers, etc.), genitourinary ailments (CKD, nephritis, etc.), and neuropsychiatric disorders (stress, anxiety, depression, etc.). Lifestyle disorders are those that stem from an individual's incorrect relationship with

their environment and are based on their everyday behaviours. Lifestyle disorders are mostly caused by poor eating habits, inactivity, incorrect body posture, and a disrupted circadian rhythm. There is a discernible difference in eating habits and preparation techniques between the ancient and modern eras now days because of lifestyle changes, urbanisation, and the allure of western culture. Ayurveda is an ancient, tried-and-true holistic science. It provides a variety of approaches to treating Madhumeha, including Panchakarma, *Ratricharya*, *Pathyapathya*, *Dincharya*, and *Rituchratya*. *Rasayana* therapy is also included.

This kind of ayurvedic lifestyle enhances mental, emotional, and social well-being and eventually improves symptoms and quality of life, which aids in the management and prevention of *madhumeha*.

Keywords

Madhumeha, Nidanparivarjana, Pathya Apathya, Management .

INTRODUCTION

Ayurveda states that when Vata, Pitta, and Kapha are in harmony, the body is at its healthiest. Health problems will result from any imbalance. The foundation of a healthy existence and the three pillars of *Shareera* are the *Ahara*, *Nidra*, and *Brahmacharya*. According to Ayurveda, *Prameha* needs to be addressed before it causes more health issues. The terms "Madhu" and "Meha" are combined to form the word "*Madhumeha*."¹ (meaning honey and excessive flow respectively). *Madhumeha* is a disease entity that is characterised by the excessive passage of turbid and sweet urine, as well as the sweetness of the body tissues. These symptoms are caused by a variety of physical and chemical alterations in the body tissues. *Madhumeha* is categorised as a *Maha Roga* (Major Disease) because, in the event that treatment is delayed, it might result in a number of medical concerns, such as joint and eye pain, impotence, kidney failure, sexual and urologic issues, and more. Since diabetes is a metabolic condition, managing blood sugar levels is not enough to treat it. According to Ayurveda, the recommended course of treatment is to rejuvenate the body in order to regulate sugar levels and prevent further complications. In India, more than 30 million people have been diagnosed with diabetes. In India's cities, the crude prevalence rate is estimated to be 9%. About 3% of people live in rural areas

where the frequency is higher. According to WHO estimates, there were 31.7 million people in India with diabetes in 2000, and by 2030, there would probably be 71.4 million.² India holds the unique distinction of having the highest global diabetes population. In addition to balancing blood sugar levels, Indian holistic medicine treatments also attempt to revitalise the body and encourage good life changes for their patients. In addition to strengthening the immune system, enhancing digestion, and assisting the patient in leading a healthy lifestyle, Ayurvedic herbal medications and therapies target the underlying cause of the illness. The therapeutic treatments for diabetes and the restorative herbal medicines revitalise the body's cells, enabling healthy insulin synthesis. Understanding *Pathya Apathya* is crucial for maintaining health and managing illness. Therefore, Ayurveda emphasises that leading a healthy lifestyle and eating the right food are just as crucial to the effective treatment of any ailment as using the right medications.

REVIEW OF LITRETURE

Madhumeha

Madhumeha is a disease characterised by a hereditary predisposition related to every bodily component and a metabolic disorder, meaning it affects the entire body. Since *prameha* is a subtype of *vataja prameha*, it is only required to emphasise the disease *prameha* as a whole in order to comprehend its iatrogenicity, pathophysiology, consequences, and management. Thus, the word "*meha*" in this context mostly refers to excretions through urine.³ Thus, the definition is the clinical entity in which the patient urinates with a *kashay* and *madhura* taste, *ruksha* texture, and honey-like hue, in accordance with *Madhu*. It is also

important to understand the term "Madhumeha," as it is occasionally used to refer to all *Pramehas*.

Classification

S. No.	Classification	Types
1	Etiological (Su.Chi.11/3)	a) <i>Sahaja or Kulaja</i> (Hereditary) b) <i>Apathyanimittaja</i> (Acquired)
2	Clinicopathological (<i>Doshik</i>)(A.H.Ni.10/1)	a) <i>Kaphaj</i> - 10 types b) <i>Pittaj</i> - 6 subtypes c) <i>Vataj</i> - 4 subtypes
3	Constitutional	a) <i>Sthula or Balvana</i> (Obese Type2DM) b) <i>Krishha or Daurbalya</i> (Asthenic Type1DM)
4	Prognostic	a) <i>Sadhya</i> (Curable) b) <i>Yaapya</i> (Pallable) c) <i>Aasadhya</i> (Incurable)

Aetiology of Madhumeha

The general etiological aspects of *prameha* are extensively described in Ayurvedic texts. Acharya Charaka believes that the disease is of *Tridoshaj* origin.

Aharaja and Viharaja Nidan

- *Asyasukham* – interest in sedentary habits.
- *Swapanasukham* – pleasure of sleep.
- *Dadhini* – over indulgence of various preparations of curds
- *Gramya, audaka, anoop rasa* – soups of meat of domesticated and aquatic animals belonging to marshy land.
- *Payansi* – various milk preparations.
- *Navannapanam* – freshly harvested food articles, freshly prepared drinks.
- *Guda vaikritam* – various preparations of jaggary.

All factors that are responsible for the aggravation of Kapha can cause Prameha.⁴

Based on *dosha* dominance, three significant ancient Ayurvedic treatises comprehensively categorised the disease *prameha* into 20 kinds. It is said that Madhumeha is a kind of *Vataj Prameha*.

Samanya Nidans described by Sushruta are the same as that of described by Charaka. He has described two additional *Nidanas* as:

- *Medya sevinam* - overindulgence of fatty substances which are responsible for fat genesis in body.
- *Dravannasevinam* - excessive use of food in the form of liquid preparations. *Madhavakara* has explained the same causes as that of Charaka.

Sahaja & Apathyanimittaj⁵

It manifests due to two main etiological factors i.e. Sahaja (Hereditary/Congenital) and *Apathyanimittaja* (due to incompatible dietetics and activities). Sahaja manifests due to defective sperm and ovum of the father and mother respectively. *Apathyanimittaja* manifests due to consumption of erratic dietetic pattern and activities.

Sahaja

Narrated by sushruta. When classified the *prameha* mainly. Charak also narrated *Jataprimehi* because of *bijadosha* emphasized it as *Kullaja vikara*. Also pointed out the incurability. Defect in *beeja* i.e. in sperm /ovum or defect in *bijavayara* i.e. chromosome.

Poorvarupa of Madhumeha^{6,7}

Acharyas have stated general of *Poorvarupa Prameha* as *Madhumeha* is classified under the *vatika* type of *prameha*, *poorvarupa* of *Prameha* can be taken as *poorvarupa* of *Madhumeha*.

- *Kesheshu Jatilibhava, Asya Madhurya, Karpad daha, Karpad suptata, Mukh-talu-kanth shosh, Pipasa, Alasya, Kaye Malam, Kaya Chhidreshu, Upadeha, Paridaha Angeshu, Suptata Angeshu, Shatpada Pipilika Mutrabhisaranam, Mutre cha Mutradosham, Visra sharir Gandha, Sarvakala Nidra, Sarvakala Tandra, Snigdha gatrata, Pichhila & Guru gatrata, Madhura Mutrata, Shukla Mutrata, Sada, Shwasa, Kesha-nakhaativridhi, Sheeta Priyata, Hridaya-Netra-Jihwashravan-upadeha, Sweda, Dehe chikkanata, Dantadinam Maladhyatvam, Gala Talu shosha, Shithilangata, Shaiya Asana Swapneshu Sukhe Ratischa, Ghanagata.*

Samprapti Ghataka of Madhumeha⁸

The bodily components listed below are primarily involved in the pathophysiology that leads to the development of *Madhumeha* disease. This is the only disease where there is evidence of a broad nexus or annexation between different elements, such as *Dosha, Dushya, Mala, Srotasa, and Avayava*. The following is a description of *Madhumeha's Samprapti Ghataka* based on multiple references:

- **Dosha-**

❖ *Kapha: Bahu and Abaddha – in Avaranajanya Madhumeha*

❖ *Kapha: Kshina – in Kshayajanya Madhumeha*

❖ *Pitta: Vriddha – in Avaranajanya Madhumeha*

❖ *Pitta: Kshina – in Kshayajanya Madhumeha*

❖ *Vata: Avrita – in Avaranajanya Madhumeha*

❖ *Vata: Avrita Vriddha – in Kshayajanya Madhumeha*

- **Dushya: Rasa, Rakta, Mamsa, Meda, Majja, Vasa, Shukra, Oja, Lasika, Kled⁹ and Sweda¹⁰**

- **Srotasa: Mutravaha Udakavaha Medovaha**

- **Srotodushti: Sanga, Atipravritti**

- **Agni: Vaishamya** of all Agni (or *Dhatvagnimandya*)

- **Adhithana: Basti**

- **Udhhavasthana: Amashaya**

- **Ama: Medogata Ama** produced due to *Jatharagnimandya* and *Dhatvagnimandya*.

- **Bhedavastha: Occurrence of Upadravas** such as *Putimamsa* and *Prameha Pidika* etc.

- **Nature: Chirkari¹¹**

Upashaya- Anupashaya

No one has provided a clear explanation of *Upashaya Anupashaya* in the instance of *Madhumeha* since ancient times. After reading through all of the *Madhumeha* literature that is now available in Ayurveda, one must determine the *Upashaya-Anupashaya* of *Madhumeha* with the aid of *Yukti-Pramana*.

Prevention of Madhumeha

Principle of Ayurveda is Prevention is better than cure. Preventive measures are therefore crucial in cases with *madhumeha*. When it comes to panchakarma, nutritious foods, regular and seasonal

routines, yoga, and medications, Ayurveda has a lot to offer when it comes to prevention.¹² Ayurvedic daily practice includes the following:

- Vyayam up to half strength.
- Proper dietary habits as per *Ashtavidha Ahara Visheshayatane* and *Dwadash ashana vichar*.
- High rise people are identified and they are advised for behavioural and lifestyle changes after recognising *poorvarupa* of *madhumeha*.
- *Nidan Parivartan*
- *Sadvritta*
- Non suppression of natural urges
- Modifying lifestyle as per guidelines of Ayurvedic classical texts
- Ahara with *Laghu, Ushna gunas, Tikta, Kashaya rasa*
- *Vaat kapha shamak* and *Balya Ahara* and *Vichara*
- *Chankramana*
- *Apatarpanjanya kriya* etc.

COMPLICATIONS

Acute complications

persons with type 2 diabetes can present with various acute crises that impart a substantial short-term risk of morbidity and mortality. These include diabetic ketoacidosis, hyperglycaemic hyperosmolar state, and malignant hyperthermia-like syndrome with rhabdomyolysis.

Chronic complications

Diabetes related complications can be divided into vascular and non-vascular complications. The vascular complications of diabetes mellitus are further subdivided into macrovascular and microvascular complications.

Microvascular	Macrovascular	Other
1. Retinopathy (Proliferative /Non-Proliferative)	1. Coronary Heart Disease	1. Gastro-Intestinal (Gastroparesis, Diarrhoea)
2. Macular Oedema	2. Peripheral Artery Disease	2. Genito-Urinary (Uropathy/Sexual Dysfunction)
3. Neuropathy (Sensory and Motor)	3. Cerebrovascular Disease	3. Cataracts
4. Nephropathy		4. Glaucoma
		5. Dermatologic Related
		6. Periodontal Disease
		7. Hearing Loss

INVESTIGATIONS

Disease-Specific

- Measurement of the plasma glucose level

- Random blood sugar (RBS)
- Fasting blood sugar (FBS)

- Postprandial blood sugar (PPBS)
- Urine routine and microscopic
- Glycosylated haemoglobin (HbA1c)
- Lipid Profile
- Serum insulin and c-peptide

Other

- Blood urea and serum creatinine
- E.C.G.
- Fundus examination
- Serum electrolytes

MANAGEMENT THROUGH AYURVEDA

- ❖ Individuals diagnosed with Type 1 Diabetes Mellitus, commonly referred to as *Krishna Pramehi*, are generally recommended to consume *Bringhan* in addition to a diet that elevates Dhatu levels in the body.
- ❖ In cases of type 2 diabetes, obese patients (*Apatyanimittaja Rogi*) with optimal body strength and an intense rise in Doshas are encouraged to undergo body purification, or *Samshodhan*.
- *Snehana* (preparation of oil internally &externally)
- *Shodhana* (Purification therapy)
- *Shamana* with drugs.
- Exercise and life style modification &following regular regimen of exercise,
- yoga, pranayama and regular food& sleep
- following *Ritucharya & Dincharya*.
- Diabetes can be controlled by giving comprehensive attention to three aspects
 - *Ahara* (Diet)
 - *Vihara* (Exercise)
 - *Aushadha* (Medicine)

The role of *ahara and vihara* are equally or even more important than drugs in order to control blood sugar level as well as to prevent complication of this disease.

Some Herbal medications use in *Madhumeha*¹³

- *Musta*(*Cyperus rotundus*)
- *Daruharidra* (*Berberis aristata*)
- *Arjuna* (*Terminalia arjuna*)
- *Khadir* (*Acacia catechu*)
- *Lodhra* (*Symplocos racemosa*)
- *Guduchi*(*Tinosporacordifolia*)
- *Patol* (*Trichosanthe dioica*)
- *Vata* (*Ficus bengalensis*),
- *Udumbar*(*Ficusglomerata*),
- *Gudmar* (*Gymnema sylvestre*)
- *Asana* (*Pterocarpus marsupium*)
- *Shilajit*(*Purified Bitumen*)
- *Kumbha* (*Leucascephalotes*)
- *Nimba* (*Azardicta indica*).

Preparation use in *madhumeha*¹⁴

Ghrita &Taila- *Trikantakdya Sneha, Dadimadhya Ghrita, Shalmali Ghrita, Dhanvantar Ghrita, Triphala Ghrita,*

Asava-Arista-LodhraAsava or Madhva Asava, Dantya Asava, Devdarvadi Arista.

Leha (Paste)-*Salsaradi leha, Kusha Avleha, Vanga Avleha.*

Udaka-Sarodaka, Kushodaka, Madhukodaka, Sidhu, Madhvika.

Vati (Tablet)-*Trikatukadya Modaka, Shiva Gutika, Shilajatvadi Vati, Chandraprabha Vati, Indra Vati, Gokshuradi Vati, Aarogyavardhini Vati.*

Churna(powders)-*Nyagrodadi Churna, Eladi Churna, Karkatbijadi Churna, Triphala Churna.*

Rasa / Bhasam-Vasantakusumakar Rasa, Brihati Bangeswar Rasa, Suvarnavanga, Apurvamalinivasant Rasa, Harishankar Rasa, Panchanana Rasa.

Kwatha (Decoction)-Phalatrikadi Kwath, Darvyadi Kwath, Vidangadi Kwath, Triphaladi Kwath

4. Pathya-Apathya¹⁵

Pathva Ahara

- Cereals- Yava Godhum(wheat) Shyamaka Kodrava Bajara
- Pulses- Chanaka(gram) Adaki Mudga (Green gram)
- Vegetable - Tikta shakas- Nimba, Sarshapa(mustard), Methika, Karbellak, Kulaka(patola), Shobhanjana, Karkotaka, Udumbara, Rasona(garlic)
- Fruits - Jambu (black berry) Talaphala, Kharjura, Tinduka
- Seeds- Kamala Utpala
- Liquids- Old sura (old wine)
- Oils- Sarshapa(mustard) Danti Ingudi (best for vatic & kaphaj prameha)
- Ghrita-pittaj prameha
- Ghrit & taila - sannipatika prameha

Apathya

- **Ahar**- sannipatika prameha Dughda, dadhi, takra, ghrut, taila, ikshu vicara, gudpishtha aana, sura, madha, anoop mamsa, udada, adhayaasan, virudhasan, kaphamedhavirdhak, aahar, Madhura-amal-lavan rasa etc
 - **Vihar**- Divasayan, ati methun, swedan, dhumrapaan, vegdharan, raktamokshan etc.
5. **Yoga** -Yoga enhances all types of metabolism in the body. Those who have diabetes should

therefore exercise different types of yoga. Those who have diabetes will definitely benefit from yoga. The entire world is interested in yoga and eager for ayurveda in the modern period. Common asanas that can be very beneficial for diabetes are Padmasana, Shalabhasana, Mayurasana, Suryanamaskar, and Dhanurasana.¹⁶

DISCUSSION

Diabetes mellitus has been linked to Madhumeha, a kind of Vataj Prameha, a disease of Mutravaha Srotasa with Kapha dominance. The disease diabetes is not new. The incidence of obesity and inactive lifestyles has increased recently, bringing it into great embarrassment. Madhumeha can be prevented through lifestyle changes, diet control, and control of overweight and obesity. The current study's particularly designed Ayurvedic food and lifestyle plan has the ability to help Madhumeha (DM) patients maintain their glycaemic index. Due to rising rates of obesity and sedentary lifestyles, the number of cases with diabetes mellitus is rapidly rising. Madhumeha (Diabetes Mellitus) can be avoided by using Ayurvedic preventative techniques including Aharavidhi, Pathya, Apathya, and Yoga in conjunction with therapeutic techniques. Ayurveda is a good way to manage the right nutrition, daily routine, exercise, and medication.

CONCLUSION

Ayurveda describes many practices such as Ahara, Vihara, Dinacharya, Ritucharya, Yoga, and Rasayana that are beneficial in preventing and treating lifestyle disease. Therefore, it may be said that diabetes mellitus is the oldest metabolic illness in history. Urbanisation, poor eating habits, inactivity, and sedentary lifestyles all contribute to the condition. In

addition to genetic predisposition, psychological variables are important in the aetiopathogenesis of this condition. One can maintain good health and avoid diabetes mellitus and its related complications by embracing the Ayurvedic principles of a healthy lifestyle and the efficacious treatment methods prescribed by ancient physicians. Ayurveda has the ability to successfully control and prevent. Moreover, everyone may afford and benefit from Ayurvedic therapy.

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