



Review Article

PATHOPHYSIOLOGICAL INSIGHTS AND AYURVEDIC INTERVENTIONS FOR *MADHUMEHA*: A COMPREHENSIVE REVIEW OF TYPE 2 DIABETES MANAGEMENT

Kiran Chandolia^{1*}, Naimish Raj Singh², Jitendra Varsakiya³, Amreen¹

*1PG Scholar, ²Professor & Head of Dept., ³Associate Professor, PG Dept. of Kayachikitsa, CBPACS, New Delhi, India.

Article info

Article History:

Received: 10-04-2026

Accepted: 08-05-2026

Published: 08-07-2026

KEYWORDS:

Madhumeha, Type 2 Diabetes Mellitus, *Prameha*, *Srotodusti*, Metabolic Syndrome, Ayurveda.

ABSTRACT

Madhumeha, categorized under *Vataj Prameha* in Ayurvedic classics, is a chronic metabolic disorder increasingly recognized as a global health crisis. Characterized by *Prabhuta-avila mutrata* (excessive, turbid urination), it shares significant clinical parallels with Type 2 Diabetes Mellitus (T2DM). **Aim:** This review aims to synthesize classical Ayurvedic perspectives on the etiology and pathogenesis of *Madhumeha* and evaluate its correlation with the modern physiological understanding of T2DM. **Methods:** A comprehensive literature search was conducted across classical Ayurvedic texts (*Brihatrayi*) and contemporary databases (PubMed, Google Scholar, Ayush Research Portal). The study focuses on the *Samprapti* (pathogenesis) involving *Doshic* imbalances, *Srotodusti* (channel impairment), and the role of *Agnimandya* (impaired metabolic fire). **Discussion:** Ayurvedic literature identifies *Madhumeha* as a *Shleshma-pradhana Tridoshaja Vyadhi*. The pathogenesis is driven by factors such as *Avyayama* (sedentary lifestyle), *Asukhya* (dietary indiscretion), and *Beeja Dosh* (genetic predisposition). These factors lead to the depletion of *Ojas* and the manifestation of a "sweet" urinary profile. Modern clinical correlations highlight the progression from insulin resistance to pancreatic exhaustion, mirroring the transition from *Kaphaja* to *Vataja* phases in *Prameha*. The review further explores the limitations of current management and the potential for *Panchakarma* and *Shamana* therapies to improve insulin sensitivity. **Conclusion:** A profound understanding of *Madhumeha* through the lens of both Ayurveda and Modern metabolic science provides a holistic framework for early intervention. Integrating these paradigms may offer more precise prognostic markers and sustainable management strategies for T2DM.

INTRODUCTION

Madhumeha is a clinical entity described in classical Ayurvedic literature that exhibits significant clinico-pathological overlap with Type 2 Diabetes Mellitus (T2DM). Classified primarily as a subtype of *Vataja Prameha*, it is characterized by the secretion of urine that resembles honey (*Madhu*) in colour and consistency.^[1] Ancient Ayurvedic *Acharyas* were among the first to document the sweetness of physiological fluids (blood and urine) in afflicted patients, a milestone in the early understanding of

metabolic disorders. ^[2] According to *Acharya Charaka*, *Madhumeha* is frequently synonymous with *Ojomeha*, representing a state where the vital essence (*Ojas*) is depleted through the urinary tract. The pathogenesis (*Samprapti*) of *Prameha* is multifaceted, involving the morbid interaction of the three *Doshas* (*Kapha*, *Pitta*, *Vata*) with ten specific *Dushyas* (tissue elements), including *Meda* (muscle tissue), and *Kleda* (body fluids). While twenty distinct varieties of *Prameha* are described based on *Doshic* predominance, classical texts emphasize that all untreated or chronic forms eventually culminate in *Madhumeha*, signifying an irreversible or *Asadhya* (difficult to treat) stage of metabolic collapse^[3]. In contemporary medicine, Diabetes Mellitus (DM) represents a cluster of metabolic aetiologies characterized by chronic hyperglycaemia resulting from defects in insulin

Access this article online

Quick Response Code



<https://doi.org/10.47070/ayushdhara.v13i3.2677>

Published by Mahadev Publications (Regd.)
publication licensed under a Creative Commons
Attribution-NonCommercial-ShareAlike 4.0
International (CC BY-NC-SA 4.0)

secretion, insulin action, or both. [4] The global epidemiological burden of DM is escalating rapidly. Data from the International Diabetes Federation (IDF) Atlas (2025) indicates a global prevalence of 11.1%, affecting approximately 1 in 9 adults. Current estimates suggest that 589 million individuals were living with diabetes in 2024, a figure projected to reach 853 million by 2050.

Notably, over 80% of the diabetic population resides in low and middle-income countries, where T2DM accounts for more than 90% of cases. The surge in prevalence is attributed to a complex interplay of socioeconomic shifts, rapid urbanization, an aging demographic, and lifestyle-related factors, specifically sedentary behaviour and the rising incidence of obesity [5]. Given this trajectory, there is a critical need to re-evaluate traditional perspectives like those found in Ayurveda to develop integrative management strategies for this "silent killer."

AIM AND OBJECTIVE

To study and review the concept of *Madhumeha Roga* from different Ayurvedic literature.

MATERIAL AND METHOD

A comprehensive review of literature was conducted by examining Ayurvedic classical texts, research journals, online resources, and recent scientific publications. Relevant references were compiled from both Ayurvedic and modern medical sources, as well as from earlier studies related to the topic.

DISCUSSION

The clinical entity of *Madhumeha* has been meticulously documented across the classical compendia of Ayurveda, including the *Charaka Samhita*, *Sushruta Samhita*, and the *Ashtanga* series. These texts provide a comprehensive framework encompassing etiology (*Nidana*), symptomatology (*Rupa*), and complications (*Upadrava*), which align closely with the modern clinical profile of Type 2 Diabetes Mellitus (T2DM).

Pathophysiological Etiology

Ayurvedic literature defines *Madhumeha* as a metabolic state where the patient voids urine resembling honey (*Madhu*) in colour, taste, and consistency. This correlates with the phenotype of hyperglycaemia and subsequent glycosuria seen in T2DM. Modern medicine describes DM as a group of metabolic disorders characterized by hyperglycaemia resulting from a complex interplay of genetic predisposition and environmental triggers.

The aetiology (*Nidana*) described in Ayurveda including *Asyasukha* (sedentary habits), *Swapnasukha* (excessive sleep), and the consumption of *Gramya-Audaka-Anupa Rasa* (diets rich in saturated fats and

high-calorie meats)- mirrors the contemporary understanding of T2DM risk factors [6]. In India, where T2DM constitutes approximately 98% of the diabetic population, obesity, physical inactivity, and dietary indiscretion remain the primary modifiable drivers of the disease.

Samprapti (Pathogenesis)

The *Samprapti* (pathogenesis) of *Madhumeha* represents a transition from a *Santarpana-uttha* (overnutrition) disorder to a state of tissue depletion. The chronic aggravation of *Kapha* and *Meda* (adipose tissue) leads to an obstruction (*Avarana*) of the *Vata* pathway. Consequently, *Vata* displaces the *Ojas* (vital metabolic essence) toward the *Basti* (urinary system), manifesting as *Madhumeha* [7].

This traditional sequence closely parallels the "metabolic cascade" in T2DM, where chronic positive energy balance leads to ectopic fat deposition and insulin resistance. This state of insulin dysfunction results in decreased glucose utilization and increased hepatic glucose production, ultimately exhausting the pancreatic reserves- a stage comparable to the *Vataja* dominance in chronic *Prameha*.

Purvarupa and Early Clinical Markers

The recognition of *Purvarupa* (prodromal symptoms) in Ayurveda offers a unique opportunity for early intervention. Symptoms such as *Danta-adinama Maladhayata* (coating on teeth), *Hasta-pada Daha* (burning sensation in extremities), and *Mukhamadhurya* (sweetness in the mouth) are significant clinical precursors [8].

In modern clinical practice, these correspond to the often-asymptomatic early stages of insulin resistance. For instance, *Hasta-pada Daha* may be viewed as an early sign of peripheral neuropathy, while *Acanthosis nigricans* serves as a visible marker of hyperinsulinemia. Educating populations on these "warning signs"- including persistent fatigue, delayed wound healing, and recurrent infections- is essential for reducing the global burden of undiagnosed diabetes.

Clinical Features (Roopa)

According to Ayurveda *Prabootamootrata* (polyuria), *Avilamootrata* (polyphagia), *Trishna* (polydipsia), *Alasya* (lassitude), *Sthoulyata* (caused due to *Santarpana/Margavarana janya*), obesity (where in rapid weight gain is seen), *Karshyata* (seen in *Krusha mehi's*) (lean diabetic where in there is rapid weight loss), *Mootramadhuryata* (glycosuria), *Tanumadhuryata* (hyperglycaemia). Type 2 diabetics present with symptoms of polyuria, polydipsia, and polyphagia with weakness and weight loss, many type 2 diabetics are asymptomatic and remain silent for many years [9].

The Diagnosis of Diabetes

The American diabetes association (ADA) criteria for the diagnosis of diabetes:

Table 1: Diagnostic criteria

Test	Diagnostic criteria for diabetes
HbA1c	≥ 6.5% indicates diabetes
Fasting plasma glucose (FPG)	≥ 126 mg/dL (7.0 mmol/L) suggests diabetes
Postprandial glucose (2hour OGTT)	≥ 200mg/dL (11.1 mmol/L) indicates diabetes
Random plasma glucose	≥ 200mg/dL (11.1 mmol/L) with symptoms suggests diabetes

Complication (*Upadrava*)

Madhumeha is associated with a wide range of clinical manifestations and complications reflecting systemic involvement. Including *Udavarta* (vomiting), *Kampa* (trembling), *Hridgraha* (cardiac discomfort or heart disease), *Loulya* (increased craving for food or need for nourishment), and *Shoola* (generalized body ache) are *Upadravas* (complications). From a modern clinical perspective, diabetes mellitus is associated with several acute and chronic complications. Acute metabolic complications include diabetic ketoacidosis and hyperosmolar coma. Patients are also prone to infections, particularly bacterial and fungal infections affecting the skin, mucous membranes, soft tissues, bones, urinary tract, and lungs. Long-term complications primarily involve vascular damage, leading to atherosclerosis and its consequences such as coronary heart disease, cerebrovascular disease, and peripheral vascular disorders. Other complications include cataract formation, diabetic foot ulcers, nephropathy, retinopathy, dermopathy, and neuropathies, including both polyneuropathy and autonomic neuropathy.

Management

Nidan Parivarjan Chikitsa

Nidan Parivarjan means avoidance of etiological factor of *Prameha* helps in preventing the disease in normal individual, control disease in pre-diabetic individual and manage disease in diagnosed diabetic patient along with medication [10].

Line of treatment

According to *Acharya Charak*, one type of patient of *Prameha* is obese and strong while other one is lean and weak. Of these, promotive treatment should be given to the lean and evacuation in case of patients having abundance of *Dosa* and strength. After unction, various formulations for evacuation mentioned in *Kalpsthana* should be administered. [11]

Samshaman Chikitsa

In patients who are suffering from weakness and emaciation (*Durbal* and *Krish Pramehapidita*), not indicated for *Samshodhan Chikitsa*, so therefore should be used *Samshaman Chikitsa*. Some Ayurvedic formulations like *Phaltrikadi Kwath*, *Lodhrasav*, *Dantyasav*, *Bhallatakasav*.^[12] *Triphala Churna* is described in *Charak Samhita* and *Nyagrodhadi Churna* is described in *Yogratnakar*. *Shilajit*, *Vang Bhasm*, *Nag Bhasm* and *Abhrak Bhasm* are mentioned in *Rastantrasar* and *Siddhprayog Sangrah* (part-1). *Brihat Yograj Guggul* and *Yograj Guggul* are mentioned in *Sharangdhar Samhita*. *Chandanavas* is mentioned in *Bhaishajya Ratnavali*. All these formulations are used in clinical practice of *Madhumeha*- type 2 Diabetes mellitus.

Shodhana Chikitsa

Samshodhan chikitsa should be given in case of patients having abundance of *Dosa* and strength. After unction, various formulations for evacuation mentioned in *Kalpsthana* should be administered. After elimination of excreta from upward and downward passage, saturation therapy should be applied in *Prameha* because by de-saturation the patient is affected with *Gulma*, wasting, pain in penis and bladder and obstruction into consideration [13].

Specific *Basti Chikitsa* in *Prameha*

Various types of *Basti* described in *Samhitas*. *Saindhavadi Taila Anuvasana Basti* is mentioned in *Charaka Samhita* (*Siddhi Sthana* 4/13-16), *Vidangadi Taila Anuvasana Basti* referenced in *Siddhi Sthana* 4/18-22. *Rasnadi Niruha Basti* is described in both *Charaka Samhita* (*Siddhi Sthana* 3/61-64) and *Sushruta Samhita* (*Chikitsa Sthana* 38/70-71). The formulation known as *Prameha Nashak Basti* (*Somvalkal*) is mentioned in *Charaka Samhita* (*Siddhi Sthana* 10/43), indicating its role in managing metabolic disorders like *Prameha*. *Panchatikta Niruha Basti* is referenced in *Charaka Samhita* (*Siddhi Sthana* 8/8-12) and *Sushruta Samhita* (*Chikitsa Sthana* 38/99-100). *Madhutailika Basti* is described in *Sushrut Samhita* (*Chikitsa Sthana* 38/99-100).

Single drug

Several important herbs are recommended for their *Kapha-Medohara* and anti-diabetic properties. These are *Amlaki*, *Ashwgandha*, *Vijaysar*, *Tejpatra*, *Daruharidra*, *Methika*, *Chitrak*, *Karvellak*, *Nimba*, *Jambu*, *Mamajjaka*, *Supari*, *Pippali* and *Bakuchi*. In which *Amlaki*, *Mamajjaka* and *Supari* demonstrate hypoglycaemic activity^[14]. *Ashwgandha* helps in a direct blood-glucose-lowering effect^[15]. *Vijaysar* have the property of beta cell protective and blood glucose lowering activity^[16]. *Tejpatra* and *Nimba* have effect of anti hyperglycemic activity^[17,18]. *Methika* exerts antidiabetic effect by increasing gastric emptying time and glucose absorption rate^[19]. *Pippali* manages hyperglycemia^[20]. *Bakuchi* act through negative regulation of insulin signalling^[21]. *Daruharidra* has antidiabetic property and *Chitrak* has effect on GLUT4 translocation^[22]. *Jambu* is effective in controlling high blood sugar levels^[23].

Diet (*Pathya* and *Apathya*)

As per textual (*Charak Chikitsa* 6/48), intake of food items like *roti*(bread) with roasted *Yava* (barley) and dry *Sattu* prepared from *Yava* prevent the occurrence of *Prameha* and for the patients of *Prameha*, *Tiktashaak* (bitter tasting vegetables), meat of *Jangli Harin* (wild deer). In the same way, daily use of *Moongdal* and *Amla* do not occur *Prameha*. As per *Yogratnakar*, Food like *Shyamak*, *Kodrava*, wheat, *Arhar* and *Kulath* are beneficial for patients with *Pramehas*. It is advised to consume old rice along with the juice of *Mung*. *Prameha Rogi* should intake of cooked food with *Danti*, *Ingudi*, *Alasi* and *Sarso* (mustard). *Puratan Madhu*, *Arishta*, *Aasav* and water of *Asanadi Sarvarga*. In *Prameha Rogi*, *kanji*, alcohol, jaggery, *Amlarasdravya* and meat of marshy/aquatic animals (*Bha.Pr.Chi.38/43* always sitting, sleeping during daytime, eating curd, suppressing the urge to urinate, smoking, *Sweda Karma*, bloodletting (*Raktmokshan*) and consuming *Sauvira*, *Sura*, *Sukta*, starchy foods should be avoided (*Yo.R.U. 11/4-5*)

Yoga Pranayama

In *Prameha*, *Yogic* practices such as *Kriya Yoga*, *Surya Namaskara*, *Ardha Matsyendrasana*, and *Pawanmuktasana*, along with *pranayama* techniques like *Nadi Shodhana* and *Bhastrika*, play a supportive role in management. These *Asanas* involve rhythmic contraction and relaxation of the abdominal region, which helps stimulate and rejuvenate pancreatic cells, thereby aiding insulin production and improving glucose metabolism. *Paschimottasana* helps in boosting pancreatic and renal activities, *Veerasana* aids in alleviating fatigue and generalized weakness, *Mayurasana* contributes to the improvement of metabolic process, *Dhanurasana* facilitates stimulation

of pancreatic secretion. Furthermore, *Ardhmatsyendrasana* helps in reduction of blood glucose level and *Bhastrika pranayama* helps to maintain metabolic process^[24].

According *Sushrut Samhita Chikitsa Sthana*

Patients of different kinds of *Prameha* should be administered the following recipes especially.

Kaphaja Prameha includes several types, each managed with specific herbal decoctions. In *Udakameha*, a decoction of *Parijata* is used, while *Iksumeha* is treated with a decoction of *Vaijayanti*. *Surameha* is managed with *Nimba* decoction, and *Sikatameha* with *Citraka*. For *Sanairmeha*, *khadira* is prescribed. *Lavanameha* is treated with a combination of *Patha*, *Aguru*, and *Haridra*, whereas *Pistameha* uses *Haridra* and *Daruharidra*. *Sandrameha* is managed with *Saptaparna*, and *Sukrameha* involves decoctions of *Durva*, *Saivala*, *Plava*, *Hatha (Jalakumbhi)*, *Karanj*, and *Kaseruka*, or alternatively *Kakubha* and *Candana*. In *Phenameha*, a decoction of *Triphala*, *Aragvadha*, and *Mrdvika* is given along with honey and sweeteners like sugar or jaggery.

Pittaja Prameha also has distinct types and treatments. *Nilameha* is treated with a decoction of drugs from the *Salsaradi* group or *Asvatha*, while *Haridrameha* uses *Rajavrksa (Krtamalaka)*. *Amlameha* is managed with drugs of the *Nyagrodhadi* group, and *Ksarameha* with *Triphala*. *Manjhistameha* is treated using *Manjista* and *Candana*, and *Sonitameha (Raktameha)* is managed with *Guduci*, seeds of *Tinduka*, *kasmarya*, and *Kharjura*, often combined with honey.

For the varieties of *Prameha* considered incurable due to aggravation of *Vata (Vataja Prameha)*, formulations are described to help control the condition. In *Sarpimeha*, a paste of *Kustha*, *Kutaja*, *Patha*, *Hingu*, and *Katurohini* is added to a decoction of *Guduci* and *Citraka*. *Vasameha* is treated with a decoction of *Agnimantha* or *Simsipa*, while *Ksaudrameha* uses *Kadara* and *Kramuka*. In *Hastimeha*, a decoction of *Tinduka*, *Kapittha*, *Sirisa*, *Palasa*, *Patha*, *Murva*, and *Duhsparsa* is administered along with honey, sweeteners like sugar or jaggery, and ash of bones of animals such as elephant, horse, boar, donkey, and camel^[25].

CONCLUSION

Madhumeha, described in Ayurvedic literature as a subtype of *Prameha*, closely resembles Diabetes Mellitus and represents a chronic metabolic disorder characterized by derangement of *Doshas*, *Dushyas*, and impaired metabolic functions. In the present era, where the prevalence of diabetes is rapidly increasing due to sedentary lifestyle and improper dietary habits, the Ayurvedic principles of prevention and

management offer a comprehensive and sustainable strategy. Integrating classical Ayurvedic concepts with contemporary scientific research may further enhance the effectiveness of *Madhumeha* management. Therefore, a multidisciplinary and preventive approach based on Ayurvedic fundamentals can contribute significantly to improving the quality of life of patients suffering from *Madhumeha*.

REFERENCES

- Pandey PK, Chaturvedi GN, editors. Charak Samhita of Agnivesha revised by Charaka and Dridhabala. Vol. 2, Chikitsa Sthana, Chapter 6. Varanasi: Chaukhamba Bharati Academy; p. 209.
- Waghe SG. Textbook of Roga Nidana. Vol. 2. Jaipur (Rajasthan): Ram Ayurved Sanskrit Book Prakashan; 2021.
- Murthy KRS, translator. Vagbhatta's Ashtanga Hridayam. Vol. 1, Nidana Sthana, Adhyaya 10, Shloka 20–21. Varanasi: Chaukhamba Krishnadas Academy; 2018.
- Jameson JL, Fauci AS, Kasper DL, Hauser SL, Longo DL, Loscalzo J, editors. Harrison's Principles of Internal Medicine. 20th ed. Vol. 2. New York: McGraw-Hill Education; p. 2850.
- International Diabetes Federation. About diabetes [Internet]. Brussels: International Diabetes Federation.
- Pandey PK, Chaturvedi GN, editors. Charak Samhita of Agnivesha revised by Charaka and Dridhabala. Vol. 2, Chikitsa Sthana, Chapter 6. Varanasi: Chaukhamba Bharati Academy; p.204
- Pandey PK, Chaturvedi GN, editors. Charak Samhita of Agnivesha revised by Charaka and Dridhabala. Vol. 2, Chikitsa Sthana, Chapter 6. Varanasi: Chaukhamba Bharati Academy; p.205
- Madhavakara. Madhavanidanam (Madhukosha Vyakhya Vibhushitam), Part 2. Edited by Yadunandan Upadhyaya. Varanasi: Chaukhambha Sanskrit Pratishthan; Prameha Nidana, Chapter 33, Shloka 5, p. 9
- Sastri HS, editor. Ashtangahrdaya of Vagbhata with Sarvangasundara commentary by Arunadatta and Ayurvedarasayana of Hemadri. Nidana Sthana, Chapter 10, verses 7, 18. Reprint ed. Varanasi: Chaukhamba Sanskrit Sansthan; 2012. p. 502–504.
- Shastri AD, editor. Sushruta Samhita. Vol. 2, Uttara Tantra, Chapter 1, Shloka 25. Varanasi: Chaukhamba Orientalia; p. 14
- Sharma PV, editor. Charaka Samhita of Agnivesha revised by Charaka and Dridhabala (text with English translation). Chikitsa Sthana, Chapter 6. Varanasi: Chaukhamba Orientalia; p. 118.
- Pandey PK, Chaturvedi GN, editors. Charaka Samhita of Agnivesha revised by Charaka and Dridhabala. Vol. 2, Chikitsa Sthana, Chapter 6. Varanasi: Chaukhamba Bharati Academy; p. 211, 215–216.
- Sharma PV, editor. Charaka Samhita of Agnivesha revised by Charaka and Dridhabala (text with English translation). Chikitsa Sthana, Chapter 6. Varanasi: Chaukhamba Orientalia; p. 118–119.
- Modak M, Dixit P, Londhe J, Ghaskadbi S, Devasagayam TPA. Indian herbs and herbal drugs used for the treatment of diabetes. J Clin Biochem Nutr. 2007; 40(3): 163–173. doi:10.3164/jcfn.40.163
- Mikulska P, Malinowska M, Ignacyk M, Szustowski P, Nowak J, Pesta K, et al. Ashwagandha (*Withania somnifera*)- current research on the health-promoting activities: a narrative review. Nutrients. 2023; 15(3): 600. doi:10.3390/nu15030600
- Badkhane, Y. and lone, S. (2010). *Pterocarpus marsupium*: biological activities and medicinal properties, International Journal of Research in Pharmaceutical Science, 1(1), pp. 350-357
- Thakur, S., Walia, B., & Chaudhary, G. (n.d.). Review based upon Ayurvedic and traditional uses of *Cinnamomum tamala* (Tejpatta). Shuddhi Ayurveda Jeena Sikho Lifecare Pvt. Ltd
- Modak, M., Dixit, P., Londhe, J., Ghaskadbi, S., & Devasagayam, T. P. A. (2007). Indian herbs and herbal drugs used for the treatment of diabetes. Journal of Clinical Biochemistry and Nutrition, 40(3), 163–173. https://doi.org/10.3164/jcfn.40.163
- Kavita., Dhaka, M., & Sharma, O. P. (n.d.). Antidiabetic activity of methi seeds (*Trigonella foenum-graecum*). Sri Ganganagar College of Ayurvedic Science & Hospital, Rajasthan, India
- Nabi, S. A., Kasetti, R. B., Sirasanagandla, S., Tilak, T. K., Kumar, M. V. J., & Rao, C. A. (n.d.). Antidiabetic and antihyperlipidemic activity of *Piper longum* root aqueous extract in STZ induced diabetic rat
- Goli, D. (2007). Anti-diabetic activity of stem bark of *Berberis aristata* DC in alloxan induced diabetic rats (Doctoral dissertation, RGUHS).
- Christudas S, Veeramuthu D, Paul A, Savarimuthu I, Antidiabetic effect of plumbagin isolated from *Plumbago zeylanica* L. root and its effect on GLUT4 translocation in streptozotocin induced diabetic rats, Food and Chemical Toxicology, 50, 2012, 4356-4363
- Wasiullah, M., Singh, S., Yadav, K., Singh, P., & Yadav, J. (n.d.). Antidiabetic properties of Jamun

- (*Syzygium cumini*). Department of Pharmacy, Prasad Institute of Technology, Jaunpur, India
24. Avhad G, Daundkar-Avhad A, Katkar SV, Khambayat Y, Bagalkoti AK. Ayurveda perspective of Prameha: causes, symptoms and management. Pune (India): Swasthya Clinic & Research Centre; Sanjivani Clinic; Aastha Ayurvedic Clinic
25. Murthy KRS, translator. Sushruta Samhita. Vol. 2, Chikitsa Sthana, Chapter 11. Varanasi: Chaukhamba Orientalia; p. 126-127

Cite this article as:

Kiran Chandolia, Naimish Raj Singh, Jitendra Varsakiya, Amreen. Pathophysiological Insights and Ayurvedic Interventions for Madhumeha: A Comprehensive Review of Type 2 Diabetes Management. AYUSHDHARA, 2026;13(3):383-388.

<https://doi.org/10.47070/ayushdhara.v13i3.2677>

Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**

Dr. Kiran Chandolia

PG Scholar,

Post Graduate of Kayachikitsa,

CBPACS, New Delhi.

Email:

kiranchandolia1999@gmail.com

Disclaimer: AYUSHDHARA is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. AYUSHDHARA cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of AYUSHDHARA editor or editorial board members.

