

**MADHUMEHA (TYPE 2 DIABETES MELLITUS) AND ITS AYURVEDIC
MANAGEMENT: A CASE REPORT****Acharya Manish¹, Dr. Gitika Chaudhary*², Dr. Richa³, Dr. Divya⁴, Dr. Tanu Rani⁵,
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ABSTRACT

Type 2 Diabetes Mellitus (T2DM), correlated as *Madhumeha* in *Ayurveda*, is a chronic metabolic disorder characterized by hyperglycemia, polyuria, and associated systemic complications. This case study reports the *Ayurvedic* management of a 43-year-old female patient presenting with *Madhumeha*, hypothyroidism, and fatty liver. The patient exhibited classical diabetic symptoms including polyuria, polydipsia, dysuria, and recurrent headache. *Ayurvedic* interventions focused on balancing *Kapha* and *Vata dosha*, correcting *Agni* (digestive fire), and clearing obstructions in *Mutravaha srotas* (urinary channels). *Ayurvedic* formulations comprising *Gurmar* (*Gymnema sylvestre*), *Karela* (*Momordica charantia*), *Neem* (*Azadirachta indica*), and *Jamun* (*Syzygium cumini*) were administered, selected based on their *Rasapanchaka* properties of *Tikta* and *Kashaya rasa*, *Laghuguna*, and *Katu vipaka*, which collectively regulate blood glucose metabolism, stimulate insulin secretion, and detoxify the body. After three months of treatment, marked clinical and biochemical improvements were noted. Symptomatic relief included reduction of polyuria and polydipsia, complete resolution of dysuria and headache, and enhanced overall well-being. Biochemical analysis revealed a significant reduction in HbA1c from 11.3% to 6.2%, reflecting improved glycaemic control. This case underscores the importance of *Ayurvedic* principles with contemporary medical understanding to develop sustainable, patient-centered approaches for diabetes care. Further clinical studies and research with larger cohort is recommended to validate these findings.

KEYWORDS: *Ayurveda*, HbA1c, *Madhumeha*, *Rasapanchaka*, Type 2 Diabetes Mellitus.**INTRODUCTION**

Diabetes Mellitus is a clinical syndrome characterized by hyperglycaemia due to an absolute or relative insulin deficiency. As per the WHO (World Health Organization), it is a heterogeneous metabolic disorder characterized by common features of chronic hyperglycaemia with disturbances of carbohydrates, fat & protein metabolism.^[1] In *Ayurveda*, Diabetes Mellitus significantly resembles *Madhumeha* (Diabetes Mellitus), which is one of the twenty types of *Prameha* (Diabetes Mellitus) as described in almost all *Ayurvedic* texts. All *Prameha*, if not treated properly, may be converted to *Madhumeha* in due course of time.^[2] Considering the

seriousness of the disease and its prognosis, *Ayurvedic* scholars have referred *Madhumeha* to be '*Mahagada*' (Diseases which are difficult to cure) or '*Maharog*' (Dreadful disease), i.e., a disease which has grave clinical manifestations.^[3] According to *Charak*, major causative factor *Nidan* (Cause) of *Madhumeha* are *Madhur* (sweet), *Amla* (sour), *Lavana Rasa* (salt taste) dominant diet mentioned as '*Gramya Udaka Anupa Rasa Payansi Dadhini*'.^[4] and lifestyle such as '*Aasya Sukham Swapna Sukham*'.^[5] *Prameha* is a *Santarpanajanya tridoshaj vyadhi*. According to *Sushruta*, excessive indulgence in *Pramehotpadaka aahar-vihar* leads to vitiation of *Aparipakvavata*, *pitta*,

kapha, which combines with *Medodhatu* (adipose tissue). These vitiated *Dosha* and *Dhatu* proceed downward through the *Mutravaha Srotas* (Channels responsible for urine formation and excretion) to get localized at the *Basti* (urinary bladder), causing *Prameha*.^[6] Ancient Indian physicians identified Diabetes mellitus as *Madhumeha* because the urine of patients attracted ants. *Madhumeha* is a *Vataj* subtype of the disease *Prameha*.^[7] *Ayurveda*, through its armamentarium, can prove vital in the management of diabetes mellitus. Based on similarities in signs and

symptoms, type 2 diabetes mellitus can be compared its *Madhumeha* in *Ayurveda*. All The types of *prameha* if not treated in early stages will develop into *madhumeha*.^[8,9] The person indulging in day sleeping, abstains from physical exercise and having Sedentary life style and takes cold, unctuous, sweet, and fatty foods or drinks, is aggravating factor in the pathogenesis of *Prameha*.^[10] *Meda* (adipose tissue of the body), *Mamsa* (muscle), *Kleda* (moistened), along with predominant *Kapha* associated with vitiated *Pitta* and *Vata*, get accumulated in *Basti*, and this leads to *Prameha*.^[11]

Samprapti Ghatak (Components of Pathogenesis)^[12]

Factor	Description
Dosha (Bio-energies)	<i>Kaphadrikaya Tridosha</i> – All three doshas involved, mainly <i>Kapha</i>
Dushya (Affected tissues)	<i>Meda</i> (Fat), <i>Mamsa</i> (Muscle), <i>Kleda</i> (Body fluids), <i>Shukra</i> (Semen), <i>Rakta</i> (Blood), <i>Vasa</i> (Fat tissue), <i>Majja</i> (Bone marrow), <i>Lasika</i> (Lymph), <i>Rasa</i> (Plasma), <i>Ojas</i> (Immunity)
Srotas (Body channels involved)	<i>Mutravaha Srotas</i> (Urinary channels), <i>Medovaha Srotas</i> (Fat metabolism channels)
Srotodushti (Type of channel disorder)	<i>Sanga</i> (Obstruction), <i>Atipravriti</i> (Excess flow)
Agni (Digestive/metabolic fire)	<i>Jatharagni</i> (Main digestive fire), <i>Medodhatu Agni</i> (Adipose tissue metabolism fire)
Udbhavasthana (Origin of disease)	<i>Amashaya</i> (Stomach)
Vyaktasthana (Manifestation site)	<i>Mutravaha</i> (Urinary system)
Adhishthana (Main site)	<i>Basti</i> (Urinary bladder)
Rogamarga (Disease pathway)	<i>Madhyama Rogamarga</i> (Internal system pathway)
Swabhava (Nature of disease)	<i>Chirakari</i> (Chronic)
Sadhya-Asadhyata (Prognosis)	<i>Yapya</i> (Manageable but not completely curable)

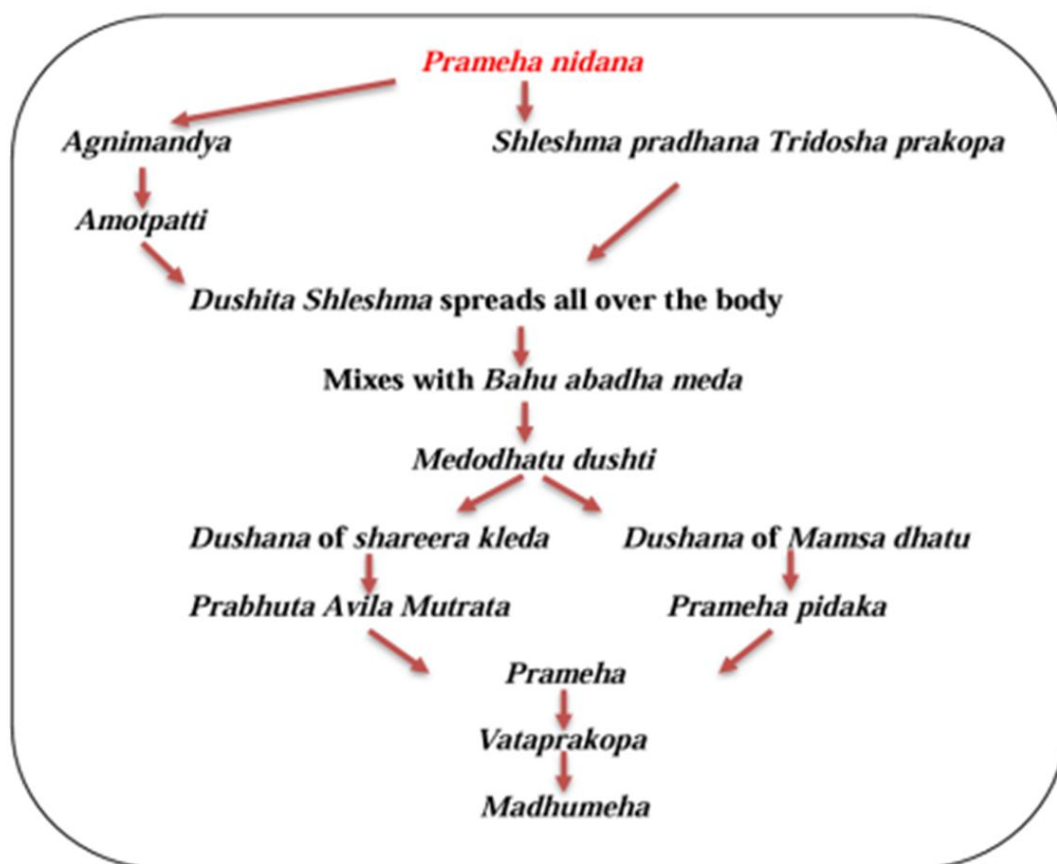


Figure 1: *Samprapti of Madhumeha.*

CASE REPORT

A 43-year-old female visited Jeena Sikho Lifecare Limited Clinic, Bathinda, (Punjab) on January 5, 2025, with known case of *Madhumeha*, her chief complaints was *Mutra Ati-Pravritti* (frequent urination), *Trishna* (excessive thirst), *Daha Mutra* (burning micturition), and headache. She had a pastmedical history of

hypothyroidism for the last 10 years, for which she was on Thyroxine 75 mg daily, and fatty liver grade I. Her surgical history revealed a cholecystectomy 4 years back. Gynecological history showed irregular menstrual cycles with the last menstrual period (LMP) on 15th January 2025, lasting 5 days.

Table 1: Vitals observed during the treatment (January 5, 2025).

Parameter	Findings
Blood Pressure	140/100 mmHg
Pulse Rate	98/min
Random Blood Sugar	344 mg/dl
Weight	77 Kg

Table 2: Ashtasthana Pareeksha observed during the treatment.

Parameters	Findings
<i>Nadi</i> (Pulse)	<i>Vata-Kaphaj</i>
<i>Mala</i> (Stool)	<i>Vibandh</i> (Constipated)
<i>Mutra</i> (Urine)	<i>Bahumutra</i> (Polyuria), <i>Daha</i> (Dysuria)
<i>Jiwha</i> (Tongue)	<i>Saam</i> (Coated)
<i>Shabda</i> (speech)	<i>Spashta</i> (Clear)
<i>Sparsha</i> (Touch)	<i>Anushna Sheet</i> (Moderate Temperature)
<i>Drik</i> (Eyesight)	<i>Avikrit</i> (Normal)
<i>Akriiti</i> (General Appearance)	<i>Madhyam</i> (Moderate)

Table 3: Vitals from each consult.

Date	B.P (mmHg)	Random Blood Sugar (mg/dl)	Remarks
10/02/2025	150/90	285	Home monitoring – initial high readings
04/03/2025	140/90	257	Clinical visit – moderate control
14/04/2025	120/80	140	Clinical visit – significant improvement
09/05/2025	120/80	131	Home monitoring – near normal values

Treatment Plan**I. Shaman Chikitsa**

Based on the clinical evaluation, a detailed and patient-specific medication protocol was devised, as outlined in Table 4.

Table 4: Medicines advised during the treatment.

Date	Powder	Tablets / Capsule	Syrup
5/2/25	- Divya Shakti Powder Half teaspoon HS (<i>Nishikal</i> with <i>Koshna jal</i>) (Before bed with lukewarm water) - Prameh Roghar Powder 3 gm B.D (<i>Adhobhaktawith Koshnajal</i>)	- Dr. Madhumeh Tablet 1BD (<i>Adhobhakta</i> with <i>Koshna jal</i>) (After meal with lukewarm water)	- Madhumeh Nashak Syrup 20ml BD (<i>Adhobhakta</i> with <i>Samamatra Koshnajal</i>)
4/3/25	-Divya Shakti Powder Half teaspoon HS (<i>Nishikal</i> with <i>Koshna jal</i>) (Before bed with lukewarm water) - Prameh Roghar Powder 3 gm B.D (<i>Adhobhakta</i> with <i>Koshna jal</i>)	-DM Capsule 1 BD (<i>Pragbhakta</i> with <i>Koshna jal</i>) -Liv Shuddhi Capsule 1 BD (<i>Adhobhakta</i> with <i>Koshna jal</i>)	-Madhumeh Nashak Syrup 20ml BD (<i>Adhobhakta</i> with <i>Samamatra Koshna jal</i>) -OJA Vardhak Syrup 20 ml BD (<i>Adhobhakta</i> with <i>Samamatra Koshna jal</i>)
12/4/25	-Prameh Roghar Powder 3 gm B.D (<i>Adhobhakta</i> with <i>Koshna jal</i>)	- Stoni Capsule 1 BD (<i>Adhobhakta</i> with <i>Koshna jal</i>) - Mutral Vati 1 BD (<i>Adhobhakta</i> with <i>Koshna jal</i>)	- Kidney Stone Syrup 20 ml BD (<i>Adhobhakta</i> with <i>Samamatra Koshna jal</i>)

Table 5: Medicine name, Ingredients, Therapeutic effect.

Medicine Name	Ingredients	Therapeutic effect
Divya Shakti Powder	Trikatu (<i>Piper nigrum</i> (Kali Mirch), <i>Piper longum</i> (Pippali), and dried <i>Zingiber officinale</i> (Saunth), Triphala (<i>Haritaki</i> (<i>Terminalia chebula</i>), <i>Bibhitaki</i> , (<i>Terminalia bellirica</i>) and <i>Amalaki</i> (<i>Emblica Officinalis</i>), Nagarmotha (<i>Cyperus rotundus</i>), VayVidang (<i>Embelia ribes</i>), ChhotiElaichi (<i>Elettaria cardamomum</i>), TejPatta (<i>Cinnamomum tamala</i>), Laung (<i>Syzygium aromaticum</i>), Nisoeth (<i>Operculinaturpethum</i>), SendhaNamak , Dhaniya (<i>Coriandrum sativum</i>), PiplaMool (<i>Piper longum</i> root), Jeera (<i>Cuminum cyminum</i>), Nagkesar (<i>Mesua ferrea</i>), Amarvati (<i>Achyranthes aspera</i>), Anardana (<i>Punica granatum</i>), Badi Elaichi (<i>Amomum subulatum</i>), Hing (<i>Ferula assafoetida</i>), Kachnar (<i>Bauhinia variegata</i>), Ajmod (<i>Trachyspermum ammi</i>), Sazzikhar , Pushkarmool	It improves digestive function and metabolism of the body through its <i>deepan-pachan</i> properties. Helps in body detoxification via <i>virechan</i> (purgation).
Prameh Har Powder	Kutki (<i>Picrorhiza kurroa</i>), Chiraita (<i>Swertia chirata</i>), Neem (<i>Azadirachta indica</i>), Karela (<i>Momordica charantia</i>), Rasonth (<i>Berberis aristata</i>), Imlibeej (<i>Tamarindus indica</i>), Giloy (<i>Tinospora cordifolia</i>), Sonth (<i>Zingiber officinale</i>), Babool chaal (<i>Vachellia nilotica</i>), Sarpgandha (<i>Rauvolfia serpentina</i>), Tivangbhasm , Yashadbhasm , Revend chinni (<i>Rheum emodi</i>), Shodhit Guggul (<i>Commiphora wightii</i>), Methi (<i>Trigonella foenum-graecum</i>), Jamun (<i>Extractum berberies</i>), Babool fruit (<i>Syzygium cumini</i>), Karanj (<i>Vachellia nilotica</i>), Shilajeet (<i>Asphaltum punjabianum</i>), Haldi (<i>Curcuma longa</i>), Harad (<i>Terminalia Chebula</i>), Inderjaun (<i>Holarrhena pubescens</i>), Banshlochan (<i>Bambusa arundinacea</i>), Bahera (<i>Terminalia bellirica</i>), Amla (<i>Phyllanthus emblica</i>), White musli (<i>Chlorophytum borivallianum</i>), Gurmar (<i>Gymnema sylvestre</i>), Black salt	It enhances Agni (digestive fire), promotes proper <i>Pachan</i> (digestion), and nourishes <i>Ojas</i> .
Madhumeh Nashak Syrup	Karela (<i>Momordica Charantia</i>), Jamun (<i>Syzygium cumini</i>), Neem (<i>Azadirachta indica</i>), Chiraita (<i>Swertia chirata</i>), Gurmar (<i>Gymnema sylvestre</i>), Kutaj (<i>Wrightia antidysenterica</i>), Chavya (<i>Piper retrofractum</i>), Chitrak (<i>Plumbago zeylancia</i>), Bael (<i>Aegle marmelos</i>), Ashwagandha (<i>Withania somnifera</i>), Vijaysar (<i>Pterocarpus marsupium</i>)	Supports <i>Prameha Shamana</i> (blood glucose regulation), enhances Agni <i>Deepana</i> and <i>Meda Pachan</i> (metabolism and energy), and promotes <i>Prameha Hara</i> with <i>Oja Vardhana</i> (insulin stimulation and vitality).
Stoni Capsule	PashanBhed (<i>Bergenia ligulata</i>), Gokshur (<i>Tribulus terrestris</i>), Kulthi (<i>Macrotylo mauniflorum</i>), Patherber , Badielaichi (<i>Amomum subulatum</i>), Jawakhar (<i>Potassium carbonate</i>), Shilajeet (<i>Asphaltum punjabianum</i>), Hazralyahud	Supports <i>Mutravaha Srotas Shuddhi</i> (kidney and urinary tract health) and promotes <i>Sarva Sharira Sukha</i> (overall well-being) with natural ingredients.
Mutral Vati	Kajli (<i>Lophural eucomelanos</i>), LohBhasm , VangBhasm , Abharak Bhasm , Yavakshar , Gokshur , Haritaki (<i>Terminalia chebula</i>), Baheda (<i>Terminalia bellirica</i>), Vasa (<i>Justicia adhatoda</i>)	Supports <i>Mutravaha Srotas</i> (urinary wellness) and <i>Vrikka Karma</i> (kidney function), while assisting in <i>NityaSukha</i> (daily well-being) and <i>Agni-Vaishamya Shamana</i> (metabolic balance).
OJA Vardhak Tonic	Giloy (<i>Tinospora cordifolia</i>), Dashmool , Babool (<i>Acacia arabica</i>), Magha (<i>Piper longum</i>), Jaiphal (<i>Myristica fragrans</i>), Long (<i>Syzygium aromaticum</i>), Kankol (<i>Piper cubeba</i>), Badi Elachi (<i>Amomum subulatum</i>), Dalchini (<i>Cinnamomum zeylanicum</i>), Tejpatta (<i>Cinnamomum tamala</i>), Kali Mirch (<i>Piper nigrum</i>), Nag Kesar (<i>Mesua ferrea</i>), Badi Bring (<i>Embelia ribes</i>), Vasa (<i>Adhatoda vasica</i>), Mulethi (<i>Glycyrrhiza glabra</i>), ChotiKateri (<i>Solanum xanthocarpum</i>), Talispatra (<i>Abies webbiana</i>), Mahua (<i>Madhuca longifolia</i>), Water , Shaker	This supports <i>Vyadhi Kshamatva</i> (Immunity Boosting), enhances <i>Bala & Ojas</i> (Energy and Stamina), promotes <i>Swasthya</i> (Overall Well-being), strengthens <i>Roga Pratibandhata</i> (Defense Mechanism), reduces <i>Klama</i> (Fatigue), and maintains <i>Agni & Pachana</i> (Digestive Health and Nutrient Absorption) for holistic vitality.
Kidney stone syrup	Gokshur (<i>Tribulus terrestris</i>), Bhumiamla (<i>Phyllanthus niruri</i>), Harad (<i>Terminalia chebula</i>), Kulathi (<i>Macrotylo mauniflorum</i>), PashanBhed (<i>Bergenia ligulata</i>), Pachantranmool , Plasha , Punarnava (<i>Boerhavia diffusa</i>), Chiraita (<i>Swertia chirata</i>), SendhaNamak , Varun chhaal (<i>Crataeva nurvala</i>), Sheetalchini (<i>Piper cubeba</i>), Guduchi (<i>Tinospora cordifolia</i>), YavKshar	Helps in reducing <i>Ama</i> and <i>Rakta-gata Vata</i> (uric acid imbalance), thereby decreasing <i>Vata-Krichra</i> (gout attacks) and preventing <i>Ashmari</i> (kidney stones).

	(<i>Hodeum vulgare</i>), MooliKshar (<i>Raphanus sativus</i>), Kalmishora , Sazükshar , Amla (<i>Phyllanthus emblica</i>), Shudh Shilajeet (<i>Asphaltum punjabianum</i>), Usher , Anantmool (<i>Hemidesmus indicus</i>), Shgrisudh (<i>Albizia lebbbeck</i>), Netrabala (<i>Pavonia odorata</i>), Haldi (<i>Curcuma longa</i>)	
Liv Shudhi Capsule	Bhumiamla (<i>Phyllanthus niruri</i>), Punarnava (<i>Boerhavia diffusa</i>), Arjun (<i>Terminalia arjuna</i>), Haritaki (<i>Terminalia chebula</i>), Bhringraj (<i>Eclipta prostrata</i>), Haldi (<i>Curcuma longa</i>), Kali mirch (Black pepper), Gokhru (<i>Tribulus terrestris</i>), Giloy (<i>Tinospora cordifolia</i>)	Beneficial in <i>Yakrit Vikara</i> (liver disorders), supports <i>Shodhana</i> (detoxification), and acts as <i>Yakrit Rakshaka</i> (liver protector).
DM Capsule	AmbaHaldi (<i>Curcuma Amada</i>), Giloy (<i>Tinospora cordifolia</i>), Safed Musli (<i>Chlorophytum borivilianum</i>), Methi (<i>Trigonella foenum-graecum</i>), Neem (<i>Azadirachta indica</i>), Karela (<i>Momordica charantia</i>), Jamun (<i>Syzygium cumini</i>), Bilva Patra (<i>Aegle marmelos</i>), Gurmar (<i>Gymnema sylvestre</i>), Shudh Shilajeet (<i>Asphaltum punjabianum</i>),	Helps to stimulate insulin production. It is beneficial in managing <i>Prameha</i> , particularly <i>Madhumeha</i> , by balancing <i>Kapha</i> and regulating <i>Meda Dhatu</i> and <i>Agni</i> .
Dr.Madhumeh Tablet	Gurmar (<i>Gymnema Sylvestre</i>), Methi (<i>Trigonella foenum graecum</i>), Giloy (<i>Tinospora cordifolia</i>), Neem (<i>Azadirachta indica</i>), Harad (<i>Terminalia chebula</i>), Karela (<i>Momordica charantia</i>), Chirayita (<i>Swertia chairta</i>), Jamun (<i>Syzygium cumini</i>), Vijaysar (<i>Petrocarpus marsupium</i>), Daruhaldi (<i>Berberis aristata</i>), Karanj (<i>Milletia pinnata</i>)	<i>Madhumeha Shamana</i> (Blood sugar balance), Helps in maintaining appropriate glucose levels

II. Ahara Krama^[13]: The dietary guidelines provided by Jeena Sikho Lifecare Limited Hospital included the following.

a. Do's and Don'ts

1. Avoid eating after 8 PM.
2. Take a small bite of solid food and chew it 32 times to aid proper digestion and nutrient absorption.
3. Do not consume wheat, refined food, milk, milk products, coffee, tea, and packed food.

b. Jala Sevan (Water intake)

1. Take small sips of water.
2. Drink about 250ml of alkaline water 3 to 4 times a day.
3. Consume Herbal tea 300ml twice daily. To prepare 300 ml of Herbal tea, combine 2 cloves (*Trifolium pratense*), 2 cardamom pods, 10 black pepper seeds (*Piper nigrum*), 5 gm cinnamon sticks (*Cinnamomum verum*), and a half teaspoon of fennel seeds (*Foeniculum vulgare*) with hot water.
4. Drink Red juice taken in quantities of 100-150 ml.
5. Green juice taken in quantities of 10 gm each, 200 ml water added, ground in a mixer grinder, filtered, and consumed in a quantity of (100-150 ml).
6. Living water: The approach involves a three-tiered filtration system using clay pots, each serving a specific purpose to purify and energize the water: Top Pot: Fill this pot with a mixture of small and large river stones, followed by charcoal made from burning wood. This layer acts as an initial filter, removing larger impurities. Middle Pot: Place a similar mix of stones here. Additionally, add *Moringa* seed powder (also known as drumstick or "Sahjan" powder), a silver vessel, a copper vessel, and *Rudraksha* (*Elaeocarpus angustifolium*).

Moringa seeds are known for their natural water-purifying properties, while silver and copper are believed to enhance the quality of water. Bottom Pot: This pot remains unaltered and serves as the collection chamber for the purified water. Advised to drink as per the need.

7. Boil 2 liters of water to reduce it to 1 liter and consume.

c. Aim to drink 1 liter of alkaline water daily (Procedure as follow)

1. Setup the Glass Jug: Fill a clean jug with fresh drinking water.
2. Add Copper Vessel: Place a copper vessel or glass inside the jug.
3. Infuse Flavors: Add slices of carrot, cucumber, and lemon to the water.
4. Add Herbs: Include ginger slices, mint leaves, and coriander leaves.
5. Optional Spice: Add a slice of green chili for added flavor.
6. Let it Sit: Allow the mixture to sit for 12 hours.
7. Add *Amalaki* (*Embllica officinalis*) and Basil (*Ocimum tenuiflorum*): After 6 hours, add 3–4 pieces of *Amalaki* and a handful of Basil leaves. Let it infuse for 6 hours.
8. Ready to Drink: 3 to 4 times a day in divided portions

d. ShookaDhanya Sevan

1. Incorporate five types of millet into diet: (*Priyaṅgava*) Foxtail (*Setariaitalica*), (*Śyāmākā*) Barnyard (*Echinochloaesculenta*), (*Kodrava*) (*Paspalumscrobiculatum*) and Browntop (*Urochloa ramosa*).
2. Use only steel cookware for preparing the millets. Cook the millets only using mustard oil.

e. Ayurvedic and Disciplined & intelligent Person's diet (DIP) includes.

Early Morning 5:45 AM	Breakfast 9:00 – 10:00 AM	Morning snacks 11:00 AM	Lunch 12:30– 2:00 PM	Evening Snacks 4:00 – 4:20 PM	Dinner 6:15 – 7:30 PM
<ul style="list-style-type: none"> Herbal tea, Coconut Water. Curry leaves (1 leaf per minute, up to 5 leaves), raw ginger, turmeric. 	<ul style="list-style-type: none"> Steamed seasonal fruits (weight × 10 grams), <i>Mugda yusha</i>, fermented millet shake. Plate 2: Millet Khichdi/ Millet Poha . 	<ul style="list-style-type: none"> Red juice (150 ml), ingredients include Carrot (<i>Daucus carota</i>), Beetroot (<i>Beta vulgaris</i>) 	<ul style="list-style-type: none"> Plate 1: Steamed salad (weight × 5 grams) Plate 2: Millet recipe 	<ul style="list-style-type: none"> Green juice (100–150 ml), ingredients include Coriander leaves (<i>Coriandrum sativum</i>), Mint leaves (<i>Mentha spicata</i>), Spinach leaves (<i>Spinacia oleracea</i>), Curry leaves (<i>Murraya koenigii</i>), Tulsi leaves (<i>Ocimum tenuiflorum</i>) 	<ul style="list-style-type: none"> Plate 1: Steamed salad (weight × 5 grams), chutney, soup Plate 2: Millet khichdi

f. Fasting

1. One-day fasting per week.

g. Special Instructions

1. Express gratitude to the divine before consuming food or drinks.
2. Sit in *Vajrasana* (a yoga posture) after each meal.
3. 10-minute slow walk after every meal.

h. Diet Types

1. The diet comprises low-salt solid, semi-solid, and smoothie options.

2. Suggested foods include herbal tea, red juice, green juice, a variety of steamed fruits, fermented millet shakes, soaked almonds, and steamed salads.

II. Jeevana Vidhi

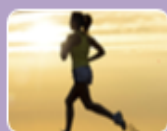
1. **Neem Karela therapy:** Put both feet inside a bucket which consist of *neem* and *karela* inside and press them by moving both feet till the bitter taste reaches to the tongue.



Include *Dhyana* (meditation) for relaxation



Engage in Yoga (*Sukhasana* and *Sukshma pranayama*) from 6:00 AM to 7:00 AM.



Practice barefoot brisk walk for 30 minutes.

RESULT

In table 6 the clinical findings of the patient demonstrate significant improvement following *Ayurvedic* intervention. Before treatment on 31/01/2025, the patient's HbA1c level was 11.3%, indicating poorly controlled Type 2 Diabetes Mellitus. After treatment, by 09/05/2025, the HbA1c reduced remarkably to 6.2%, suggesting restoration of near-normal glycaemic status. In table 7, Symptomatic relief was also evident polyuria

and polydipsia, the cardinal features of diabetes, were notably reduced dysuria, initially present with painful micturition, resolved with painless urination and headache, earlier reported as throbbing, was completely absent. These findings collectively highlight the effectiveness of *Ayurvedic* treatment in improving both biochemical parameters and clinical symptoms of *Madhumeha* (Type 2 Diabetes Mellitus).

Table 6: Laboratory Investigation observed during the treatment.

Parameters	Findings	
Date	31/1/25	9/5/25
HbA1C	11.3%	6.2%

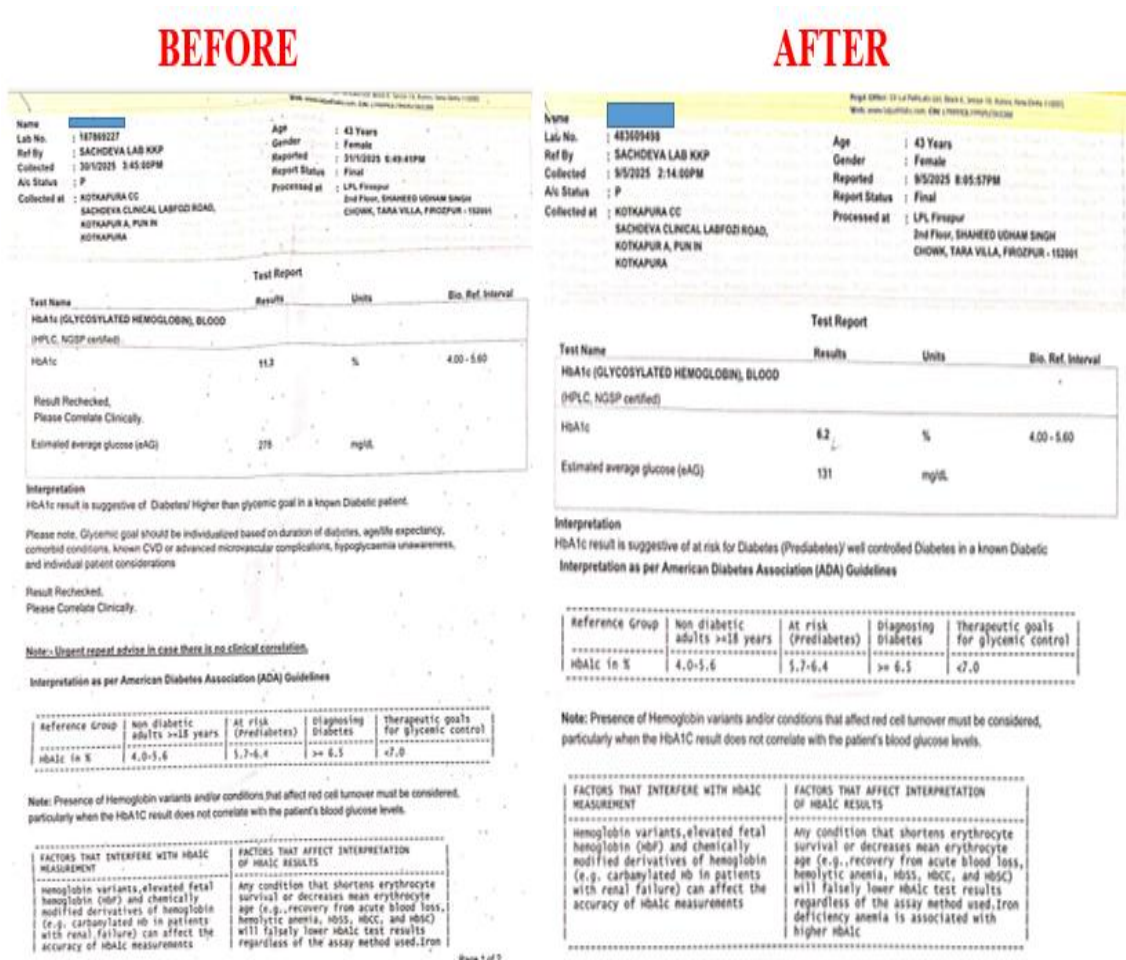


Table 7: Comparison of patient's complaints before and after the treatment.

Complaint	Before Treatment	After Treatment
Polyuria (frequent urination) ^[14]	Present	Reduced
Polydipsia (excessive thirst) ^[15]	Present	Reduced
Dysuria (painful urination) ^[16]	Present	Urination is painless
Headache ^[17]	Throbbing headache	Absent

DISCUSSION

This case study describes a 43-year-old female patient diagnosed with Type 2 Diabetes Mellitus (*Madhumeh*), presented to Jeena Sikho Lifecare Ltd. Hospital., Bathinda. *Nidana* (Causative Factors) of *Madhumeha* in *Ayurveda*, *Madhumeha* is classified as a subtype of *Prameha*, a cluster of urinary disorders that predominantly arise from vitiation of *Kapha dosha*. The disease develops due to improper dietary and lifestyle practices such as consumption of *Guru* (heavy), *Snigdha* (unctuous), *Madhura* (sweet), and *Sheeta* (cold) food items. In addition, *Divaswapna* (excessive day sleep), *Avyayama* (lack of physical activity), *Achintana* (mental indiscipline or lack of mindfulness), and *Asatmya bhojana* (incompatible foods) serve as major etiological

factors. A genetic component (*Beej dosha*) is also recognized as a contributing factor for predisposition to *Madhumeha*.^[18]

Samprapti (Pathogenesis) of *Madhumeha*: The pathogenesis of *Madhumeha* involves *Dosha-Dushya Sammurchchhana* (mutual vitiation of doshas and body tissues). Predominantly, *Kapha* and *Vata dosha* become deranged, which in turn impairs the function and integrity of *Meda dhatu* (fat tissue), *Mamsa dhatu* (muscle tissue), and the *Mutravaha srotas* (urinary channels). This dysfunction results in deranged metabolism and abnormal urinary output, manifesting as the cardinal features of *Madhumeha*.^[19]

Ahar–Vihar (Dietary and Lifestyle Factors) in Madhumeha: The development and aggravation of *Madhumeha* are closely linked to *Apathya Ahar–Vihar* (unwholesome diet and lifestyle). Excessive intake of *Guru*, *Snigdha*, *Madhura*, and *Sheeta* food items promotes *Kapha* and *Meda* aggravation. Sedentary behavior due to *Avyayama*, indulgence in *Divaswapna*, and lack of *Achintana* further weaken metabolic activity. Over time, these faulty habits lead to *Kapha–Vata* imbalance, impaired *Agni* (digestive and metabolic fire), and obstruction in *srotas*, thereby perpetuating the disease process.^[20]

Treatment Results: The present case demonstrates a significant improvement in both clinical symptoms and biochemical parameters following treatment. Initially, the patient exhibited classical symptoms such as

polyuria, polydipsia, dysuria, and headache, which are often associated with poorly controlled *Madhumeha* (diabetes mellitus). After treatment, marked symptomatic relief was observed polyuria and polydipsia were reduced, dysuria resolved completely, and headache subsided, reflecting an overall enhancement in systemic balance and quality of life. Importantly, the biochemical assessment revealed a considerable decline in HbA1c levels from 11.3% to 6.2% within a span of three months, indicating effective long-term glycaemic control. This dual improvement of subjective symptomatic relief and objective biochemical normalization highlights the therapeutic potential of the *Ayurvedic* intervention in restoring metabolic balance, improving urinary health, and preventing further disease complications.

Table 8: Rasapanchaka (Ayurvedic Properties) and actions of Common Herbs.

Ingredients	Rasapanchaka (Rasa, Guna, Virya, Vipaka)	Action (Prabhava / Karma)	Medicines Containing the Ingredient
Gurmar (<i>Gymnema sylvestre</i>) ^[21]	Rasa: Tikta (Bitter), Kashaya (Astringent); Guna: Laghu (Light), Ruksha (Dry); Virya: Ushna (Hot); Vipaka: Katu (Pungent)	Regulates blood sugar, reduces <i>Madhumeha</i> through <i>Lekhana</i> (scraping), pacifies <i>Kapha–Pitta</i>	Madhumeh Nashak Syrup, DM Capsule, Prameh Har Powder
Karela (<i>Momordica charantia</i>) ^[22]	Rasa: Tikta (Bitter); Guna: Laghu (Light), Ruksha (Dry); Virya: Ushna (Hot); Vipaka: Katu (Pungent)	Enhances insulin sensitivity, reduces <i>Meda</i> (fat) and <i>Kapha</i>	Madhumeh Nashak Syrup, DM Capsule
Neem (<i>Azadirachta indica</i>) ^[23]	Rasa: Tikta (Bitter), Kashaya (Astringent); Guna: Laghu (Light), Ruksha (Dry); Virya: Sheet (Cold); Vipaka: Katu (Pungent)	<i>Krimighna</i> (antimicrobial), <i>Pramehaghna</i> (anti-diabetic), detoxifies blood	Prameh Har Powder, Chandraprabha Vati, DM Capsule
Jamun (<i>Syzygium cumini</i>) ^[24]	Rasa: Kashaya (Astringent), Madhura (Sweet); Guna: Laghu (Light), Ruksha (Dry); Virya: Sheet (Cold); Vipaka: Katu (Pungent)	Balances <i>Kapha–Pitta</i> , stabilizes urine output and glucose levels	Madhumeh Nashak Syrup, Prameh Har Powder

Need for Future Research

Diabetes mellitus is a chronic, progressive disorder with an increasing global burden, requiring urgent research attention. Despite multiple therapies, long-term glycaemic control and prevention of complications remain challenging. The heterogeneous nature of the disease, influenced by genetics, lifestyle, and environment, demands deeper investigation into molecular mechanisms and precision medicine approaches. Moreover, limitations of existing drugs highlight the need for safer, more sustainable options, including regenerative medicine like *Ayurveda*.^[25] Future research should focus on large-scale randomized controlled trials to validate efficacy, enhance prevention strategies, and develop standardized protocols for holistic diabetes management and improved patient outcomes.

CONCLUSION

This case study highlights the effective role of *Ayurvedic* management in Type 2 Diabetes Mellitus (*Madhumeha*). The patient, a 43-year-old female with a history of hypothyroidism and fatty liver, presented with a known case of *Madhumeha* including polyuria, polydipsia,

dysuria, and headache. After intervention, significant improvement was observed in both clinical and biochemical outcomes. Symptomatic relief included reduction of polyuria and polydipsia, resolution of dysuria, and complete alleviation of headache. Most notably, the patient's HbA1c level decreased from 11.3% to 6.2% within three months, reflecting improved long-term glycaemic control. Importantly, the patient continued thyroxine 75mg for hypothyroidism but was not taking any treatment for hypothyroidism, and regarding T2DM, never took any allopathic medicine. The pathogenesis of *Madhumeha*, as described in *Ayurveda*, emphasizes the interplay of vitiated *Kapha* and *Vata dosha*, *Meda* and *Mamsa dhatu* dysfunction, and obstruction in *Mutravaha* srotas. The therapeutic approach focused on balancing these doshas, balancing *Agni* (digestive and metabolic fire), and promoting *srotas* patency. *Ayurvedic* herbs such as *Gurmar*, *Karela*, *Neem*, and *Jamun* with their *Rasapanchaka* properties played a vital role in reducing blood sugar, enhancing insulin sensitivity, detoxifying blood, and stabilizing urinary functions. The results of this case suggest that *Ayurvedic* interventions, when properly administered,

can provide not only symptomatic relief but also substantial metabolic improvement in patients with *Madhumeha*.

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