International Research Journal of Ayurveda & Yoga Vol. 8 (6), pp. 92-103, June, 2025
Available online at http://irjay.com
ISSN: 2581-785X
DOI:10.48165/IRJAY.2025.80612

CASE REPORT

# *Madhumeha* (T2dm) And Its Management Through *Ayurveda*: A Clinical Case Report

Acharya Manish[1], Dr. Gitika Chaudhary[2], *Dr. Richa[3], Dr. Divya[4], Dr. Tanu Rani[5]

[1]Director, Meditation Guru, Jeena Sikho Lifecare Limited, India
[2]Senior Consultant, General Surgeon, BAMS, PGDIP, PGDGS, MS (Ayurveda), Jeena Sikho Lifecare Limited, India
[3]Senior Research officer, BAMS, PGDIP, CICR, CAIM, CMW, Jeena Sikho Lifecare Limited, India
[4]Consultant, BAMS, PGDIP, CCPT, Jeena Sikho Lifecare Limited Hospital, Ambala, Haryana, India
[5]Research Associate, BAMS, Jeena Sikho Lifecare Limited, India

**Article Info**

**Article history:**
Received on: 25-05-2025
Accepted on: 17-06-2025
Published on: 30-06-2025

**KEYWORDS**
*Ayurvedic* management, Lifestyle modification, *Madhumeha*, *Prameha*, Type 2 Diabetes mellitus, Yoga

**ABSTRACT**

The increasing prevalence of Type 2 Diabetes Mellitus (T2DM) in India, driven by lifestyle changes, urbanization, and genetic factors, necessitates comprehensive and holistic management approaches. This case study was conducted at Jeena Sikho Lifecare Limited, Ambala, India, and evaluates the effectiveness of *Ayurvedic* interventions in managing T2DM in a 34-year-old female patient. The patient presented with a known history of T2DM and complaints of shortness of breath. Following a thorough *Ayurvedic* evaluation, an individualized treatment protocol was initiated, comprising *Ayurvedic* formulations, dietary modifications, and lifestyle interventions. Over a three-month period, notable improvements were observed. The patient's fasting blood sugar reduced from 307 mg/dl to 110 mg/dl, $HbA_{1c}$ decreased from 9.3% to 7.5%, and average glucose levels dropped from 232 mg/dl to 169 mg/dl. In addition to glycemic control, symptoms such as fatigue and shortness of breath were alleviated, indicating enhanced overall well-being and metabolic balance. These findings suggest that *Ayurvedic* intervention can be an effective complementary approach in the management of T2DM, contributing to both symptomatic relief and improved metabolic parameters. However, larger, controlled studies are warranted to confirm safety, efficacy, and long-term benefits, and to help establish standardized guidelines for the integration of *Ayurvedic* care in diabetes management.

## INTRODUCTION

The prevalence of Type 2 Diabetes Mellitus (T2DM) in India is rapidly increasing, with projections estimating 134 million cases by 2045 [1]. This alarming rise is primarily attributed to lifestyle changes, urbanization, and genetic predisposition [2]. Alongside its physical impact, the psychological burden of diabetes plays a crucial role in influencing patient management and health outcomes [3]. A study utilizing the Indian Diabetes Risk Score identified that 43% of participants were at high risk of developing T2DM [4]. Key risk factors include obesity, hypertension, and a sedentary lifestyle, with a strong correlation observed between Body Mass Index (BMI) and diabetes risk [5]. Enhancing patient education can significantly improve self-management and address socio-economic disparities in healthcare access [6]. T2DM profoundly affects health-related quality of life (HRQOL), with individuals frequently reporting diminished physical functioning and vitality compared to the general population [7]. Factors such as age, gender, and the presence of comorbidities further influence HRQOL among patients [8]. While managing the physical aspects of T2DM remains essential, equal emphasis must be placed on addressing

Corresponding author
Dr. Richa,
Senior Research officer, BAMS, PGDIP, CICR, CAIM, CMW,
Jeena Sikho Lifecare Limited, India
**Email:** dr.richa@jeenasikho.com

psychological well-being and overall quality of life [9]. Adopting a holistic approach that integrates both physical and mental health considerations can lead to better clinical outcomes and enhanced patient satisfaction.

From an *Ayurvedic* perspective, T2DM, known as *Madhumeha*, is classified under the broader category of *Prameha*, a group of urinary disorders [10]. The pathogenesis of *Madhumeha* is primarily attributed to the vitiation of *Kapha* and *Vata doshas*, along with the involvement of *Medo Dhatu* (fat tissue) and *Mamsa Dhatu* (muscle tissue) [11]. Poor dietary habits, sedentary lifestyle, excessive intake of sweet and heavy foods, and mental stress lead to *Agni Mandya* (digestive fire impairment) and subsequent formation of *Ama* (toxic metabolic waste). This results in improper metabolism and accumulation of *Meda* (fat) and *Kleda* (moisture) in the body[12]. Over time, these imbalances obstruct the normal functioning of *Vata*, particularly *Apana Vata*, and disturb the urinary system, leading to frequent and excessive urination with a sweet taste, hallmark symptoms of *Madhumeha* [14]. Thus, T2DM in *Ayurveda* is seen as a systemic metabolic disorder involving *Dhatvagnimandya* (deranged tissue metabolism), *Srotorodha* (channel blockage), and *Ojakshaya* (depletion of vital energy), requiring a holistic approach involving correction of *doshic* imbalance, lifestyle regulation, dietary discipline, and rejuvenative therapies [14]. The *Samprapti Ghatak* [15] of this case is mentioned in **Fig 1**.

**Fig 1. The *Samprapti Ghatak***

| | |
|---|---|
| ***Dosha*** **(Bio-energetic principles)** | • ***Kapha*** **(initially),** ***Vata*** **(dominant in chronic stage), with involvement of** ***Pitta*** **in some cases** |
| ***Dushya*** **(vitiated tissues)** | • ***Rasa*** **(plasma),** ***Rakta*** **(blood),** ***Mamsa*** **(muscle),** ***Meda*** **(fat),** ***Majja*** **(bone marrow),** ***Shukra*** **(reproductive fluid),** ***Ojas*** **(immunity)** |
| ***Agni*** **(Digestive/metabolic fire)** | • ***Mandagni*** **(low digestive fire),** ***Dhatvagni Mandya*** **(impaired tissue metabolism)** |
| ***Ama*** **(Toxic metabolic waste)** | • **Toxins formed due to incomplete digestion (present)** |
| ***Srotas*** **(Body channels)** | • ***Mutravah Srotas*** **(urinary system),** ***Medovah Srotas*** **(fat channels),** ***Rasavah Srotas*** **(plasma channels),** ***Mamsavah Srotas*** **(muscle channels)** |
| ***Srotodushti Prakara*** **(Types of channel vitiation)** | • ***Sanga*** **(obstruction),** ***Atipravritti*** **(excessive flow)** |
| ***Udbhav Sthan*** **(Site of origin)** | • ***Amashaya*** **(gastrointestinal tract)** |
| ***Sanchar Sthan*** **(Site of disease spread)** | • ***Rasa Dhatu*** **(plasma),** ***Meda Dhatu*** **(fat tissue)** |
| ***Vyakti Sthan*** **(Site of manifestation)** | • ***Mutravah Srotas*** **(urinary system)** |
| ***Rog Marg*** **(Path of disease)** | • ***Abhyantar Marg*** **(internal path)** |
| ***Adhisthan*** **(Seat of disease)** | • ***Basti*** **(urinary bladder system)** |
| ***Swabhav*** **(Nature of disease)** | • ***Yapya*** **(manageable, chronic but not completely curable)** |

*Ayurvedic* management emphasizes a holistic approach that includes *Ayurvedic* formulations, dietary modifications, and lifestyle changes, all of which contribute to improved glycemic control and enhanced overall well-being [16]. *Ayurvedic* medicines have demonstrated efficacy in lowering blood glucose levels [17]. Dietary guidelines rooted in *Ayurvedic* principles advocate for the consumption of low glycemic index foods and a balanced nutritional plan tailored to individual constitution [18]. Lifestyle interventions such as regular physical activity and stress reduction techniques, including yoga and meditation, are integral to *Ayurvedic* care and support weight management and metabolic balance [19]. Clinical evidence supports the efficacy of these interventions. For instance, a case study documented a decrease in fasting blood sugar levels after three months of *Ayurvedic* treatment [20]. Similarly, an observational study reported a significant drop in $HbA_{1c}$ levels within 90 days, suggesting the potential for remission, especially in obese patients [21]. While these findings are promising, it is important to recognize that not all patients may respond uniformly to *Ayurvedic* therapies, and some may require conventional medical treatment. Therefore, integrating *Ayurvedic* and modern biomedical approaches may offer a more comprehensive and personalized strategy for managing T2DM.

## OBJECTIVE

This study explores the impact of *Ayurvedic* interventions in a 34-year-old female with Type 2 Diabetes mellitus.

## MATERIALS AND METHODS

### Case Report

A 34-year-old female visited Jeena Sikho Lifecare Limited Hospital, Ambala, India, with known case of Type 2 Diabetes mellitus (T2DM) on April 08, 2025. Her evaluation included a thorough medical history, physical examination, and diagnostics. There was no relevant family history, surgical history and addiction. She presented with shortness of breath (*Shwas kricchta*). The *Ashta Vidh Pareeksha* during the first visit are mentioned in **Table 1.** The basic vitals during the visits are mentioned in **Table 2.** Laboratory investigation results during the treatment period are shown in **Table 3.**

**Table 1 The *Ashta Vidh Pareeksha* during the visits**

| Date | 08-04-2025 |
|---|---|
| ***Nadi* (Pulse)** | *Vataj Kaphaj* |
| ***Mala* (Stool)** | *Avikrit* (Normal) |
| ***Mutra* (Urine)** | *Phenil mutra* (Frothy) |
| ***Jiwha* (Tongue)** | *Saam* (Coated) |
| ***Shabda* (Voice)** | *Spashta* (Normal) |
| ***Sparsha* (Touch)** | *Anushna sheet* (Normal) |
| ***Drik* (Eye)** | *Avikrit* (Normal) |
| ***Akriti*** | *Madhyam* |

**Table 2 The Basic vitals during the visits**

| Date | Blood pressure (mmHg) | Weight (Kg) | Sugar |
|---|---|---|---|
| 08-04-2025 | 120/80 mmHg | 58 Kg | 307 mg/dl |
| 30-04-2025 | 130/80 mmHg | 56 Kg | 254 mg/dl |
| 06-06-2025 | 130/80 mmHg | 56 Kg | 229 mg/dl |
| 08-07-2025 | 130/80 mmHg | 56 Kg | 110 mg/dl |

**Table 3 Laboratory investigation results on during the treatment period (Fig 2)**

| Parameter | Findings | |
|---|---|---|
| Date | 08-04-2025 | 07-07-2025 |
| HbA1c | 9.3% | 7.5% |
| Average Glucose | 232 mg/dl | 169 mg/dl |

### Treatment Plan

An accurately designed *Ayurveda* and Disciplined and Intelligent Person's (DIP) Diet was provided to the patient to complement the *Ayurvedic* treatments administered for $T_2DM$ [22]:

### Diet Plan

*Dietary Guidelines from Jeena Sikho Lifecare Limited*

In traditional texts, various food items suitable for individuals with diabetes are described **(Table 4)**:

| Category | Recommended Items |
|---|---|
| Cereals | Barley (*Yava*) – preparations like *Mantha*, *Odana*, *Appopa*, bread, *Roti* |
| | Wheat (*Godhooma*) |
| | Old rice (*Purana Shali*) |
| Pulses | Green gram (*Mudga*) |
| | Bengal gram (*Chanaka*) |
| | Horse gram (*Kulattha*) |
| | Pigeon pea (*Adhaki*) |
| | Other light pulses |
| Vegetables | *Tikta Shaka* (bitter vegetables) |
| | *Nimba*, *Sarshapa* (Mustard), *Methika* (Fenugreek), *Karvellak* (Bitter gourd), *Kulaka/Patola* (Pointed gourd), *Shobhanjana* (Drumstick), *Karkotaka*, *Udumbara*, *Rasona* (Garlic) |
| Fruits | Black berry (*Jambu*) |
| | Indian gooseberry (*Amalaki / Amla*) |
| | Wood Apple (*Kapitta*) |
| | Asian Palmyra Palm (*Tala Phala*) |
| | Date Sugar Palm (*Kharjura*) |
| | Indian Lotus (*Kamala*) |
| | *Nymphoea Stellata* (*Utpala*) |
| Seeds | Seeds of *Kamala* (Lotus) |
| | Seeds of *Utpala* (*Nymphoea Stellata*) |
| Oils | Mustard oil (*Sarshapa Taila*) |
| | *Ingudi Ghritha* (*Balanitis aegyptiaca ghee*) especially for *Pittaja Prameha* |
| General Rules | Do not eat after 8 PM |
| | While eating solids chew small bites 32 times |
| Apathya (Unfavorable Diet) | Fresh milk and new rice (*Dugdha Nava-Anna*) |
| | Curd (*Dadhi*), Jaggery (*Guda*), Buttermilk (*Takra*) |
| | Black gram (*Urad dal*), Sugarcane derivatives (*Ikshuvikara*) |
| | Domestic and aquatic meats (*Gramya Audaka*), Fatty foods (*Pista Anna*, *Anoopa Mamsa*) |
| | Alcoholic drinks sweet sour new (*Madhur Amla Naveen Sura*) |
| | Salty and *Kapha-Meda* aggravating foods (*Lavana Rasadi*, heavy and oily foods) |

*Hydration*

- Almond milk, coconut water & coconut milk.
- Hydration: Maintain Adequate Hydration with Warm Water, Herbal Teas, And Soups.

*Millet Inclusion*

- Incorporate five varieties of millets into diet: Foxtail, Barnyard, Little, Kodo and Browntop.
- Ensure that millets are cooked using only steel utensils to preserve their nutritional properties.

*Meal Timing and Structure* (**Fig 3**)


Fasting

- Fast once a week.

Special Instructions

- Sit in sunlight for 1 hour, morning and evening, with feet soaked in lukewarm water while chanting LUM, VUM, RUM, YUM, HUM, OM, and AUM in *gyan mudra* position.
- Offer thanks to the divine before eating or drinking.

## Lifestyle Recommendations

- Wake up early in the morning during *Brahma Muhurta* (pre-dawn hours).
- Perform brisk walking *(Chakramana)* daily and include *Abhyanga* (oil massage) as part of your morning routine.
- Practice *Yoga*, including *Asanas* and *Pranayama*, along with light physical exercises.
- Take a 15-minute walk after lunch to support digestion.
- Engage in slow walking for 15 minutes after dinner to help regulate blood sugar levels.
- Ensure 6 to 7 hours of sleep at night; avoid oversleeping.
- Avoid high-calorie foods and packed or processed products.
- Refrain from consuming dairy products, animal products, chocolate, and milk-based items**.**
- Do not sleep during the daytime**,** as it may worsen *Kapha* imbalance.
- Avoid deep-fried foods, fast food, pickles**,** and fermented items.
- Completely avoid sweets, carbonated drinks, and alcoholic substances.
- Do not overeat, especially when digestion is weak or incomplete.

## Recommended *Yoga Asanas* and *Pranayama* Techniques

- *Bhujangasana*
- *Mandukasana*
- *Kapalbhati*
- *Surya Namaskar*
- *Tadasana*
- *Paschimottanasana*
- *Bhramari*
- *Pavanamuktasana*

## Medicinal Interventions

The *Ayurvedic* treatment employed in this case included Prameh Har Powder, Dr. Diab Tablet, DM+ Syrup, Dr. Shuddhi Powder, Dr. Immune tablet, 32 Herbs Tea, Dr. Nabhi oil, Dr. Tooth Oil, Madhumeh Nashak Syrup, Chander Vati Tablet, DM Capsule and Dr. Madhumeh. The medications prescribed for the patient during the treatment is outlined in **Table 5.** The details of the medicine prescribed are described in **Table 6.**

**Table 5. The medications prescribed for the patient during the treatment**

| Date | Medicines | Dosage with *Anupana* |
|---|---|---|
| 08-04-2025 | Prameh Har Powder | Half a teaspoon BD *(Adhobhakta* with *koshna jala*- After meal with lukewarm water) |
| | Dr. Diab Tablet | 1 TAB BD (*Adhobhakta* with *koshna jala* ) |
| | DM Syrup | 10 ml BD (*Adhobhakta* with *sama matra koshna jala*- After meal with equal lukewarm water ) |
| | VPK Kit | 20 days |
| 30-04-2025 | Prameh Har Powder | Half a teaspoon BD *(Adhobhakta* with *koshna jala)* |
| | DM Syrup | 10 ml BD (*Adhobhakta* with *sama matra koshna jala)* |
| | Madhumeh Nashak Syrup | 10 ml BD (*Adhobhakta* with *sama matra koshna jala)* |
| 06-06-2025 | Prameh Har Powder | Half a teaspoon BD *(Adhobhakta* with *koshna jala)* |
| | Chander Vati | 1 TAB BD (*Adhobhakta* with *koshna jala* ) |
| | DM Capsules | 1 CAP BD (*Adhobhakta* with *koshna jala* ) |
| 08-07-2025 | Dr. Madhumeh | 1 TAB BD (*Adhobhakta* with *koshna jala* ) |
| | DM Syrup | 10 ml BD (*Adhobhakta* with *sama matra koshna jala)* |
| | DM Capsules | 1 CAP BD (*Adhobhakta* with *koshna jala* ) |

**Table 6. The details of the medicine prescribed during the treatment**

| Medicine | Ingredients | Therapeutic Effects |
|---|---|---|
| **Prameh Har Powder** | ***Kutaki*** *(Picrorhiza kurroa),* ***Chiraita*** *(Swertia chirata),* ***Neem*** *(Azadirachta indica),* ***Karela*** *(Momordica charantia),* ***Rasonth*** *(Berberis aristata),* ***Imli Beej*** *(Tamarindus indica),* ***Kala Namak*** *,* ***Giloy*** *(Tinospora cordifolia),* ***Sonth*** *(Zingiber officinale),* ***Babool Chhaal*** *(Vachellia nilotica),* ***Sarpgandha*** *(Rauvolfia serpentina),* ***Trivang Bhasm*** *,* ***Yashad Bhasm*** *,* ***Revend Chinni*** *(Rheum emodi),* ***Sodhit Guggulu*** *(Commiphora mukul),* ***Methi*** *(Trigonella foenum-graecum),* ***Jamun*** *(Syzygium cumini),* ***Babool Fruit*** *(Vachellia nilotica),* ***Karanj*** *(Millettia pinnata),* ***Shilajeet*** *,* ***Haldi*** *(Curcuma longa),* ***Harad*** *(Terminalia chebula),* ***Inderjaun*** *(Holarrhena antidysenterica),* ***Vanshlochan*** *(Bambusa arundinacea),* ***Bahera*** *(Terminalia bellirica),* ***Amla*** *(Phyllanthus emblica),* ***White Musli*** *(Chlorophytum borivilianum),* ***Gurmar*** *(Gymnema sylvestre).* | *Pramehaghna* (anti-diabetic), *Raktashodhak* (blood purifier), *Deepan* (digestive stimulant), *Pachan* (digestive), *Rasayana* (rejuvenative), *Medohara* (fat-reducing), *Shoth har* (anti-inflammatory), *Mutral* (diuretic) |
| **Dr. Diab Tablet** | ***Nimoli*** *(Azadirachta indica)* **,** ***Gudmar*** *(Gymnema sylvestre)* **,** ***Devdar*** *(Cedrus deodara)* **,** ***Methi*** *(Trigonella foenum-graecum)* **,** ***Jamun*** *(Syzygium cumini)* **,** ***Paneer Dodi*** *(Withania coagulans)* **,** ***Vijaysar*** **(***Pterocarpus marsupium)* **,** ***Kutaki*** *(Picrorhiza kurroa)* **,** ***Kali Jeeri*** *(Centratherum anthelminticum)* | *Madhumeh Har* (Antidiabetic), *Kapha-Vata Shamaka* (Dosha balancer), *Rasayan* (Rejuvenator), *Agnideepan* (Metabolism enhancer), *Ama Pachan* (Detoxifier), *Medhohar* (Fat reducer), *Shothahara* (Anti-inflammatory), *Mutrala* (Diuretic), *Srotoshodhaka* (Channel cleanser), *Prameh Nashaka* (Urinary disorder corrector) |
| **DM+ Syrup** | ***Kumari*** *(Aloe vera),* ***Papita*** *(Carica papaya),* ***Giloy*** *(Tinospora cordifolia),* ***Saptrangi*** *(Salacia oblonga),* ***Karela*** *(Momordica charantia),* ***Jamun*** *(Syzygium cumini),* ***Neem*** *(Azadirachta indica),* ***Gurmar*** *(Gymnema sylvestre),* ***Kalmegh*** *(Andrographis paniculata),* ***Arjun*** *(Terminalia arjuna),* ***Pipal*** *(Ficus religiosa),* ***Dalchini*** *(Cinnamomum verum),* ***Tulsi*** *(Ocimum sanctum),* ***Vijaysaar*** *(Pterocarpus marsupium),* ***Ashwagandha*** *(Withania somnifera).* | *Madhumeha Nashaka* (Anti-diabetic ), *Kapha-Vata Shamaka* (Balances *Kapha* and *Vata doshas* ), *Agnivardhaka* (Enhances digestive fire), *Rasayana* (Rejuvenative), *Shoth har* (Anti-inflammatory), *Balya* (Strength-promotin), *Medohara* (Reduces excess fat), *Prameha Nashak* (Removes urinary disorders related to diabetes) |
| **Dr. Shuddhi Powder** | ***Trikatu*** *(Zingiber officinale,Piper nigrum* and *Piper longum),* ***Triphala*** *(Emblica officinalis, Terminalia chebula and Terminalia bellirica),* ***Nagarmotha*** *(Cyperus rotundus),* ***Vayavidang*** *(Embelia ribes),* ***Chhoti Elaichi*** *(Elettaria cardamomum),* ***Tej Patta*** *(Cinnamomum tamala),* ***Laung*** *(Syzygium aromaticum),* ***Nisoth*** *(Operculina turpethum),* ***Sendha Namak*** *,* ***Dhaniya*** *(Coriandrum sativum),* ***Pipla Mool*** *(Piper longum root),* ***Jeera*** *(Cuminum cyminum),* ***Nagkesar*** *(Mesua ferrea),* ***Amarvati*** *(Achyranthes aspera),* ***Anardana*** *(Punica granatum),* ***Badi Elaichi*** *(Amomum subulatum),* ***Hing*** *(Ferula assafoetida),* ***Kachnar*** *(Bauhinia variegata),* ***Ajmod*** *(Trachyspermum ammi),* ***Sajjikshar*** *,* ***Pushkarmool*** *(Inula racemosa),* ***Mishri*** *(Saccharum officinarum)* | *Raktadushti* (blood impurity), *Meda Vriddhi* (adipose tissue), *Agnimandya* (weak digestion), *Mridu Virechan* (mild purgation), *Shodhana* (cleansing), *Deepan* (digestive stimulant), and *Ama Pachan* (digestion of toxins). |
| **Dr. Immune tablet** | ***Kesar*** *(Crocus sativus),* ***Shudh Kuchla*** *(Strychnos nux-vomica),* ***Ashwagandha Ext.*** *(Withania somnifera),* ***Shatawari Ext.*** *(Asparagus racemosus),* ***Pipali*** *(Piper longum),* ***Tulsi*** *(Ocimum sanctum),* ***Laung*** *(Syzygium aromaticum),* ***Choti Elaichi*** *(Elettaria cardamomum),* ***Sonth*** *(Zingiber officinale),* ***Haldi*** *(Curcuma longa),* ***Loh Bhasma*** *(Ferrum),* ***Swaran Makshik Bhasma*** *(Chalcopyrite),* ***Mukta Shukti Bhasma*** *(Pinctada margaritifera)* | *Ojas Vardhaka* (Vitality enhancer), *Rasayana* (Rejuvenator), *Vyadhi Kshamatva* (Immunity booster), *Shoth har* (Anti-inflammatory), *Raktashodhak* (Blood purifier), *Deepan* (Appetizer), *Balya* (Strength promoter) |
| **32 Herbs Tea** | ***Gauzaban*** *(Echium amoenum),* ***Kulanjan*** *(Alpinia galanga),* ***Choti Elaichi*** *(Elettaria cardamomum),* ***Laung*** *(Syzygium aromaticum),* ***Badi Elaichi*** *(Amomum subulatum),* ***Badiyan Khtay*** *(Illicium verum),* ***Banafsha*** *(Viola odorata),* ***Jufa*** *(Clerodendrum serratum),* ***Ashwagandha*** *(Withania somnifera),* ***Mulethi*** *(Glycyrrhiza glabra),* ***Punarnava*** *(Boerhavia diffusa),* ***Brahmi*** *(Bacopa monnieri),* ***Chitrak*** *(Plumbago zeylanica),* ***Kali Mirch*** *(Piper nigrum),* ***Adoosa*** *(Adhatoda vasica),* ***Saunf*** *(Foeniculum vulgare),* ***Shankh Pushp*** *(Evolvulus alsinoides),* ***Tulsi*** *(Ocimum sanctum),* ***Arjuna*** *(Terminalia arjuna),* ***Motha*** *(Cyperus rotundus),* ***Senaye*** *(Cuscuta reflexa),* ***Sonth*** *(Zingiber officinale),* ***Majeeth*** *(Rubia cordifolia),* ***Sarfoka*** *(Sphaeranthus indicus),* ***Dalchini*** *(Cinnamomum verum),* ***Gulab*** *(Rosa spp.),* ***Green Tea*** *(Camellia sinensis),* ***Giloy*** *(Tinospora cordifolia),* ***Tej Patta*** *(Cinnamomum tamala),* ***Lal Chandan*** *(Pterocarpus santalinus),* ***White Chandan*** *(Santalum album),* ***Pudina*** *(Mentha spicata)* | *Deepan* (Digestive stimulant), *Pachan* (Digestion or digestive process). |
| **Dr. Nabhi oil** | ***Amla*** *(Phyllanthus emblica),* ***Haritaki*** *(Terminalia chebula),* ***Bahera*** *(Terminalia bellerica),* ***Almond*** *(Prunus dulcis),* ***Jaiphal*** *(Myristica fragrans),* ***Ajwain*** *(Trachyspermum ammi),* ***Alsi*** *(Linum usitatissimum),* ***Long*** *(Syzygium aromaticum),* ***Camphor*** *(Cinnamomum camphora),* ***Olive*** *(Olea europaea),* ***Coconut*** *(Cocos nucifera),* ***Lemongrass*** *(Cymbopogon citratus),* ***Kali Jeeri*** *(Nigella sativa),* ***Ajmod*** *(Apium graveolens),* ***Guggul*** *(Commiphora wightii),* ***Giloy*** *(Tinospora cordifolia),* ***Chirayata*** *(Swertia chirata),* ***Kalonji*** *(Nigella sativa),* ***Katu Taila*** *(Sesamum indicum),* ***Taramira*** *(Eruca sativa),* ***Til Tailam*** *(Sesamum indicum).* | *Agnideepan (*Digestive fire enhancer), *Vata-nashaka (Vata* pacifier), *Rasayana* (Rejuvenator), *Ojovardhaka* (Immunity enhancer), *Chakra sthirikara* (stability in bodily functions) |
| **Dr. Tooth Oil** | ***Clove oil, Sat ajwain, peppermint and glycerine*** | *Danta-māṃsa-bala-vardhaka* (strengthens teeth and gums), *Krimighna* (antimicrobial), and *Durgandha -hara* |

| | | |
|---|---|---|
| **Madhumeh Nashak Syrup** | ***Karela*** *(Momordica charantia),* ***Jamun*** *(Syzygium cumini),* ***Neem*** *(Azadirachta indica),* ***Chirata*** *(Swertia chirata),* ***Gurmar*** *(Gymnema sylvestre),* ***Kutaj*** *(Holarrhena antidysenterica)* | *Vata pitta kapha shamaka (Tridosha* pacifier), *Madhumeha hara* (Anti-diabetic), *Agnideepan* (Digestive fire stimulant), *Rasayana* (Rejuvenator), *Medohara* (Fat reducer), *Kledahara (* Moisture remover) |
| **Chander Vati Tablet** | ***Kapoor Kachri*** *(Hedychium spicatum),* ***Vacha*** *(Acorus calamus),* ***Motha*** *(Cyperus rotundus),* ***Kalmegh*** *(Andrographis paniculata),* ***Giloy*** *(Tinospora cordifolia),* ***Devdaru*** *(Cedrus deodara),* ***Desi Haldi*** *(Curcuma longa),* ***Atees*** *(Aconitum heterophyllum),* ***Daru Haldi*** *(Berberis aristata),* ***Pipla Mool*** *(Piper longum root),* ***Chitrak*** *(Plumbago zeylanica),* ***Dhaniya*** *(Coriandrum sativum),* ***Harad*** *(Terminalia chebula),* ***Bahera*** *(Terminalia bellirica),* ***Amla*** *(Phyllanthus emblica),* ***Chavya*** *(Piper chaba),* ***Vayavidang*** *(Embelia ribes),* ***Pippal*** *(Piper longum),* ***Kalimirch*** *(Piper nigrum),* ***Saunth*** *(Zingiber officinale dried ginger),* ***Gaj Pipal*** *(Scindapsus officinalis),* ***Swarn Makshik Bhasm*** *(Gold iron pyrite ash - Ayurvedic preparation),* ***Sajjikshar*** *(Potassium carbonate - traditional alkali preparation),* ***Sendha Namak*** *(Rock salt),* ***Kala Namak*** *(Black salt),* ***Choti Elaichi*** *(Elettaria cardamomum - small cardamom),* ***Dalchini*** *(Cinnamomum verum),* ***Tejpatra*** *(Cinnamomum tamala),* ***Danti*** *(Baliospermum montanum),* ***Nishothra*** *(Operculina turpethum),* ***Vanslochan*** *(Bamboo silica),* ***Loh Bhasm*** *(Iron ash - Ayurvedic preparation),* ***Shilajeet*** *(Asphaltum punjabinum),* ***Guggul*** *(Commiphora wightii).* | *Raktashodhana (*Blood purifier), *Pitta Shaman (Pitta* pacifier), *Deepan* (Appetizer), *Pachan* (Digestant), *Vata-Pitta Shaman (Dosha* pacifier) |
| **DM Capsule** | ***Amba Haldi*** *(Curcuma amada),* ***Giloy*** *(Tinospora cordifolia),* ***Safed Musli*** *(Chlorophytum borivilianum),* ***Methi*** *(Trigonella foenum-graecum),* ***Neem*** *(Azadirachta indica),* ***Karela*** *(Momordica charantia),* ***Jamun*** *(Syzygium cumini),* ***Bilva Patra*** *(Aegle marmelos),* ***Gudmar*** *(Gymnema sylvestre),* ***Shuddh Shilajeet*** *.* | *Pramehaghna* (Anti-diabetic), *Raktashodhak* (Blood purifier), *Deepan* (Appetizer), *Pachan* (Digestant), *Rasayana* (Rejuvenator), *Medohara* (Fat reducer), *Shoth har* (Anti-inflammatory), *Mutral* (Diuretic) |
| **Dr. Madhumeh** | ***Gudmar*** *(Gymnema sylvestre),* ***Methi*** *(Trigonella foenum-graecum),* ***Giloy*** *(Tinospora cordifolia),* ***Neem*** *(Azadirachta indica),* ***Haritaki*** *(Terminalia chebula),* ***Karela*** *(Momordica charantia),* ***Chiraita*** *(Swertia chirayita),* ***Jamun*** *(Syzygium cumini),* ***Vijaysar*** *(Pterocarpus marsupium),* ***Daruhaldi*** *(Berberis aristata),* ***Karanj*** *(Pongamia pinnata)* | *Prameha nashak* (Anti-diabetic), *Deepan* (Appetizer), *Pachan* (Digestant), *Rasayana* (Rejuvenator), *Vatahara (Vata* pacifier) |

## RESULT

The patient underwent a three-month *Ayurvedic* regimen, following which she showed significant improvement in symptoms, indicating the effectiveness of the interventions against T2DM. Post-treatment, she was well oriented and experienced relief from SOB and hyperglycemia, further supporting the efficacy of the *Ayurvedic* approach used in this case. The conditions before and after treatment are mentioned in **Table 7.**

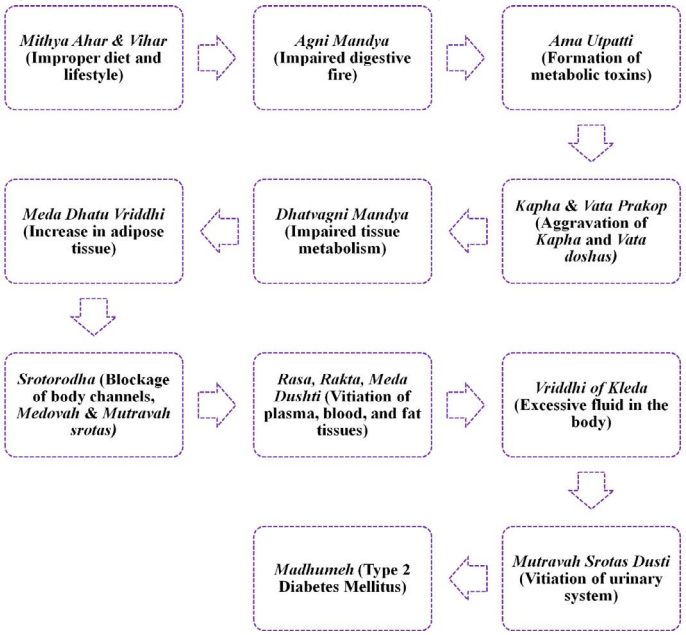
**Table 7. The Conditions before and after treatment**

| Parameter | Before Treatment | After Treatment |
|---|---|---|
| Orientation | Disoriented | Well oriented |
| Shortness of Breath (SOB) | Present | Relieved |
| Blood Sugar Levels | Elevated (Hyperglycemia) | Within controlled range |
| Overall Health | Compromised due to diabetic complications | Improved functional and metabolic state |

## DISCUSSION

*Ayurvedic* management offers a holistic and integrative approach that serves as a viable alternative to conventional biomedical treatments for T2DM. This case study presents the clinical outcomes of *Ayurvedic* intervention in a 34-year-old female patient diagnosed with T2DM. The treatment involved individualized *Ayurvedic* formulations, dietary modifications, lifestyle corrections, and therapeutic procedures aligned with classical *Ayurvedic* principles. A comprehensive understanding of the disease etiology and progression was established based on the *Ayurvedic* concept of *Samprapti* (pathogenesis). The *Samprapti* of this case is illustrated in **Fig 4** [23-29], outlining the sequence of events leading from *doshic* imbalance to clinical manifestation, and the rationale for selecting specific interventions. This integrative diagnostic framework guided the personalized treatment plan and contributed to the observed therapeutic success.

**Fig 4 The *Samprapti* of this case study**



## The *Samprapti* and *Nidan parivarjana*

In *Ayurveda*, T2DM is understood as *Madhumeha*, a subtype of *Prameha*, which manifests due to the vitiation of *Kapha* and *Vata doshas*, along with dysfunction of *Agni* (digestive fire) and vitiation of *Dhatus* such as *Meda* (fat), *Mamsa* (muscle), *Rasa* (plasma), and *Rakta* (blood). The pathogenesis begins with the regular consumption of *Mithya Ahara* and *Vihara* which includes excessive intake of sweet, heavy, oily, and processed foods, as well as habits like daytime sleeping and physical inactivity. These causative factors lead to *Agni Mandya*, resulting in the formation of *Ama* (metabolic toxins). Simultaneously, the *Kapha dosha* becomes aggravated, and *Meda Dhatu* accumulates, causing *Srotorodha* (obstruction of body channels), particularly in the *Medovaha* and *Mutravaha Srotas* (fat and urinary channels). Over time, *Vata dosha* also gets involved due to the depletion of *Ojas* and imbalance in metabolic pathways, resulting in frequent urination (polyuria), increased thirst, fatigue, and elevated blood glucose levels—characteristics of *Madhumeha* [23-29].

The *Ayurvedic* management of T2DM gives great emphasis to *Nidan Parivarjana*, i.e., avoiding or eliminating the causative factors. This includes adopting a wholesome diet with low glycemic index foods, avoiding dairy and sugar-laden items, increasing physical activity, correcting sleeping habits, and managing stress [30]. By removing these *Nidanas* (causes), the progression of disease can be arrested, and therapeutic interventions such as *Ayurvedic* formulations, *Panchakarma*, and *Rasayana* therapy can work more effectively [31,32]. Thus, breaking the *Samprapti* chain through *Nidana Parivarjana* forms the foundational step in the *Ayurvedic* treatment of *Madhumeha*.

## The effects of *Ahar-Vihar*

In the *Ayurvedic* management of T2DM, diet (*Ahara*) plays a crucial role in controlling the progression of the disease. Individuals are advised to include specific cereals such as barley (*Yava*) in various forms like *Mantha, Odana, Appopa*, bread, and roti, as well as old rice (*Purana Shali*), which are considered light and suitable. Among pulses, green gram (*Mudga*), Bengal gram (*Chanaka*), horse gram (*Kulattha*), and pigeon pea (*Adhaki*) are recommended, along with other light pulses that do not aggravate *Kapha* and *Meda* [33,34].

Bitter vegetables (*Tikta Shaka*) are particularly beneficial, including items like *Nimba*, *Sarshapa* (Mustard), *Methika* (Fenugreek), *Karvellak* (Bitter gourd), *Kulaka/Patola* (Pointed gourd), *Shobhanjana* (Drumstick), *Karkotaka*, *Udumbara*, and *Rasona* (Garlic). These help in digestion and reducing excess sugar and fat [35]. For fruits, black berry (*Jambu*), Indian gooseberry (*Amalaki* or *Amla*), wood apple (*Kapitta*), Asian palmyra palm (*Tala Phala*), date sugar palm (*Kharjura*), Indian lotus (*Kamala*), and *Nymphoea stellata* (*Utpala*) are allowed due to their astringent and bitter properties [36,37]. The seeds of *Kamala* and *Utpala* are also considered safe and beneficial [38].

In terms of fats and oils, mustard oil (*Sarshapa Taila*) is preferred, and *Ingudi* is specifically recommended for those with *Pittaja Prameha* [39]. Certain general dietary rules are also advised, one should not eat after 8 PM and should chew solid foods thoroughly, each bite ideally 32 times, to aid digestion and reduce *Ama* formation [40].

Conversely, several items are contraindicated (*Apathya*) for diabetic individuals. These include fresh milk and new rice (*Dugdha Nava-Anna*), curd (*Dadhi*), jaggery (*Guda*), and buttermilk (*Takra*), as they increase *Kapha* and *Ama*. Other harmful items include black gram (*Urad dal*), sugarcane derivatives (Ikshuvikara), meats from domestic and aquatic animals (*Gramya-Audaka*), and fatty foods like *Pista-Anna* and *Anoopa Mamsa*. Sweet, sour, and newly fermented alcoholic drinks (*Madhur-Amla Naveen Sura*) and salty, heavy, oily foods that aggravate *Kapha* and *Meda* (*Lavana Rasadi*) should also be strictly avoided. By adhering to these dietary principles, individuals with T2DM can achieve better glycemic control and overall metabolic health through *Ayurvedic* dietary management [41,42,43].

## Effect of *Ayurvedic* Interventions

*Ayurvedic* interventions for T2DM utilize a holistic, multi-targeted approach that integrates the pharmacological properties of classical herbs based on their *Rasapanchaka* and therapeutic actions. Herbs like *Gudmar* with *Tikta-Kashaya Rasa, Laghu-Ruksha Guna, Ushna Virya*, and *Katu Vipaka*, act as *Pramehaghna* and help regenerate pancreatic β-cells, aiding glycemic control [44]. *Karela*, having *Tikta-Kashaya Rasa, Laghu-Ruksha Guna, Ushna Virya,* and *Katu Vipaka*, enhances *Agni* and improves insulin sensitivity [45]. *Neem* possesses *Tikta-Kashaya Rasa, Laghu-Ruksha Guna, Sheeta Virya,* and *Katu Vipaka,* making it a potent *Raktashodhak* and *Pramehahar* [46]. *Jamun* offers *Kashaya-Rasa, Laghu Ruksha Guna, Sheeta Virya*, and *Katu Vipaka*, supporting blood sugar reduction and urinary health [47]. *Giloy*, a central *Rasayana*, carries *Tikta-Kashaya Rasa, Laghu-Snigdha Guna, Ushna Virya,* and *Madhura Vipaka*, working as Agnivardhaka, Immunomodulator, and anti-inflammatory [48]. *Methi*, with *Tikta-Kashaya Rasa, Guru Snigdha Guna, Ushna Virya,* and *Katu Vipaka*, acts as *Medohara* and *Balya* [49]. *Amla* is a *tridosha* pacifier with *Amla Rasa, Ruksha Guna, Sheeta Virya*, and *Madhura Vipaka*, enhancing *Ojas* and *Rasa-Rakta Dhatu* quality [50].

Formulations like Prameh Har Powder, Dr. Diab Tablet, and DM+ Syrup combine these herbs with *Shilajeet, Triphala*, and *Ashwagandha*, further supporting detoxification (*Shodhana*), immune modulation, and metabolic correction. Many herbs like *Kutaki, Haritaki, Chitrak*, and *Trikatu* are incorporated for *Ama Pachana*, improving *Agnimandya* and reducing *Meda Dhatu dushti*.

These *Rasapanchaka*-based interventions enable sustained management of hyperglycemia, correction of *dosha* imbalance, especially *Kapha* and *Meda dusti*, detoxification, and prevention of secondary diabetic complications. Thus,

*Ayurvedic* therapy in T2DM works not only as an anti-diabetic (*Pramehaghna*) but also as a *Rasayana*, *Shothahara*, *Raktashodhak*, and *Mutrala*, offering both symptomatic relief and systemic rejuvenation

## Implications for Future Research

This study, centered on T2DM, demonstrated encouraging outcomes. However, the limited sample size highlights the need for further research through randomized controlled trials with larger cohorts to validate the safety, efficacy, and reliability of *Ayurvedic* interventions, thereby aiding in the development of standardized therapeutic protocols.

## CONCLUSION

This case study evaluating the treatment of T2DM through *Ayurvedic* interventions yields the following findings: significant improvement in glycemic control, reduction in associated symptoms such as fatigue and shortness of breath, and enhanced overall well-being. These outcomes suggest the potential effectiveness of individualized *Ayurvedic* protocols in managing T2DM

**Vitals and Investigations:** Over a period of three months, the patient undergoing *Ayurvedic* intervention for T2DM showed marked clinical improvement. Blood pressure remained within the normal range, initially recorded at 120/80 mmHg and stabilizing at 130/80 mmHg throughout the treatment period. The patient's body weight reduced from 58 kg to 56 kg and remained stable thereafter. Blood sugar levels declined significantly from 307 mg/dl on 08-04-2025 to 110 mg/dl by 08-07-2025, reflecting improved glycemic control. The $HbA_{1c}$ value decreased from 9.3% to 7.5%. Correspondingly, average glucose levels dropped from 232 mg/dl to 169 mg/dl.

The *Ayurvedic* intervention demonstrated significant efficacy in managing T2DM, with improvements in glycemic control, weight regulation, and overall metabolic health. These outcomes support the potential of *Ayurvedic* formulations as a complementary approach in diabetes care.

## REFERENCE


1. Pradeepa, R., & Mohan, V. (2021). Epidemiology of type 2 diabetes in India. *Indian Journal of Ophthalmology, 69*(11), 2932–2938. https://doi.org/10.4103/ijo.IJO_1627_21
2. Pradeepa, R. G., & Mohan, V. (2017). Prevalence of type 2 diabetes and its complications in India and economic costs to the nation. *European Journal of Clinical Nutrition, 71*. https://doi.org/10.1038/ejcn.2017.40
3. Kalra, S., Jena, B. N., & Yeravdekar, R. (2018). Emotional and psychological needs of people with diabetes. *Indian Journal of Endocrinology and Metabolism, 22*(5), 696–704. https://doi.org/10.4103/ijem.IJEM_579_17
4. Giri, P. A., & Kausar, H. M. (2024). Assessment of risk of type 2 diabetes using Indian diabetes risk score: A community-based cross-sectional study in Marathwada region of Maharashtra. *Indian Journal of Community Health, 36*(3), 329–334. https://doi.org/10.47203/IJCH.2024.v36i03.002
5. Shariq, O. A., & McKenzie, T. J. (2020). Obesity-related hypertension: A review of pathophysiology, management, and the role of metabolic surgery. *Gland Surgery, 9*(1), 80–93. https://doi.org/10.21037/gs.2019.12.03
6. Agency for Healthcare Research and Quality. (2021). *2021 National healthcare quality and disparities report*. https://www.ncbi.nlm.nih.gov/books/NBK578537/
7. Tran, K. N., Phuong, H. N., Minh, D. D., & Wens, J. (2021). Health-related quality of life and associated factors among patients with type II diabetes mellitus: A study in the family medicine center of Agricultural General Hospital in Hanoi, Vietnam. *Health Psychology Open, 8*(1). https://doi.org/10.1177/2055102921996172
8. Hantoro, I. F., Syam, A. F., Mudjaddid, E., et al. (2018). Factors associated with health-related quality of life in patients with functional dyspepsia. *Health and Quality of Life Outcomes, 16*, 83. https://doi.org/10.1186/s12955-018-0913-z
9. Richardson, C. R., Borgeson, J. R., Van Harrison, R., et al. (2021). *Management of type 2 diabetes mellitus*. Michigan Medicine, University of Michigan. https://www.ncbi.nlm.nih.gov/books/NBK579413/
10. Vyas, O. P., & Rathor, S. (2024). A review article on Madhumeha (Type 2 Diabetes Mellitus) and its Ayurvedic management. *International Journal of Pharmaceutical Research and Applications, 9*(3), 2201–2206. www.ijprajournal.com
11. Madhavi, A., et al. (2017). A review on etiopathogenesis and management of Madhumeha (Diabetes Mellitus). *International Ayurvedic Medical Journal*. http://www.iamj.in/posts/images/upload/3856_3862.pdf
12. Mangalge, K. S., & Kaknurkar, V. (2020). Consideration of Ama as causative entity of Medavaha Strotas disease Prameha. *World Journal of Pharmaceutical Research, 9*(15), 1421–1426.
13. Yadav, V., Meshram, R., Sharma, S., Shivhare, S., Sharma, V., & Nagpal, S. (2024). Ayurvedic review article on Madhumeha w.s.r. Diabetes Mellitus. *World Journal of Pharmaceutical Research, 13*(3), 411–418.
14. Gordon, A., Buch, Z., Baute, V., & Coeytaux, R. (2019). Use of Ayurveda in the treatment of type 2 diabetes mellitus. *Global Advances in Health and Medicine, 8*, 2164956119861094. https://doi.org/10.1177/2164956119861094
15. Agnivesha. (2014). *Charaka Samhita of Agnivesha*, elaborated by Charaka and redacted by Dridhabala (Vol. 1, Sutrasthana, Verses 78–80). In V. Shukla & R. D. Tripathi (Eds.), *Vaidyamanorama Hindi Commentary*. Chaukhambha Sanskrit Pratishthan.
16. Katti, P., Katti, S., & U, R. (2025). Recent developments in integrated medicine approach in management of type 1 and type 2 diabetes mellitus: A review. *Journal of Ayurveda and Integrated Medical Sciences, 9*, 143–152. https://doi.org/10.21760/jaims.9.11.20

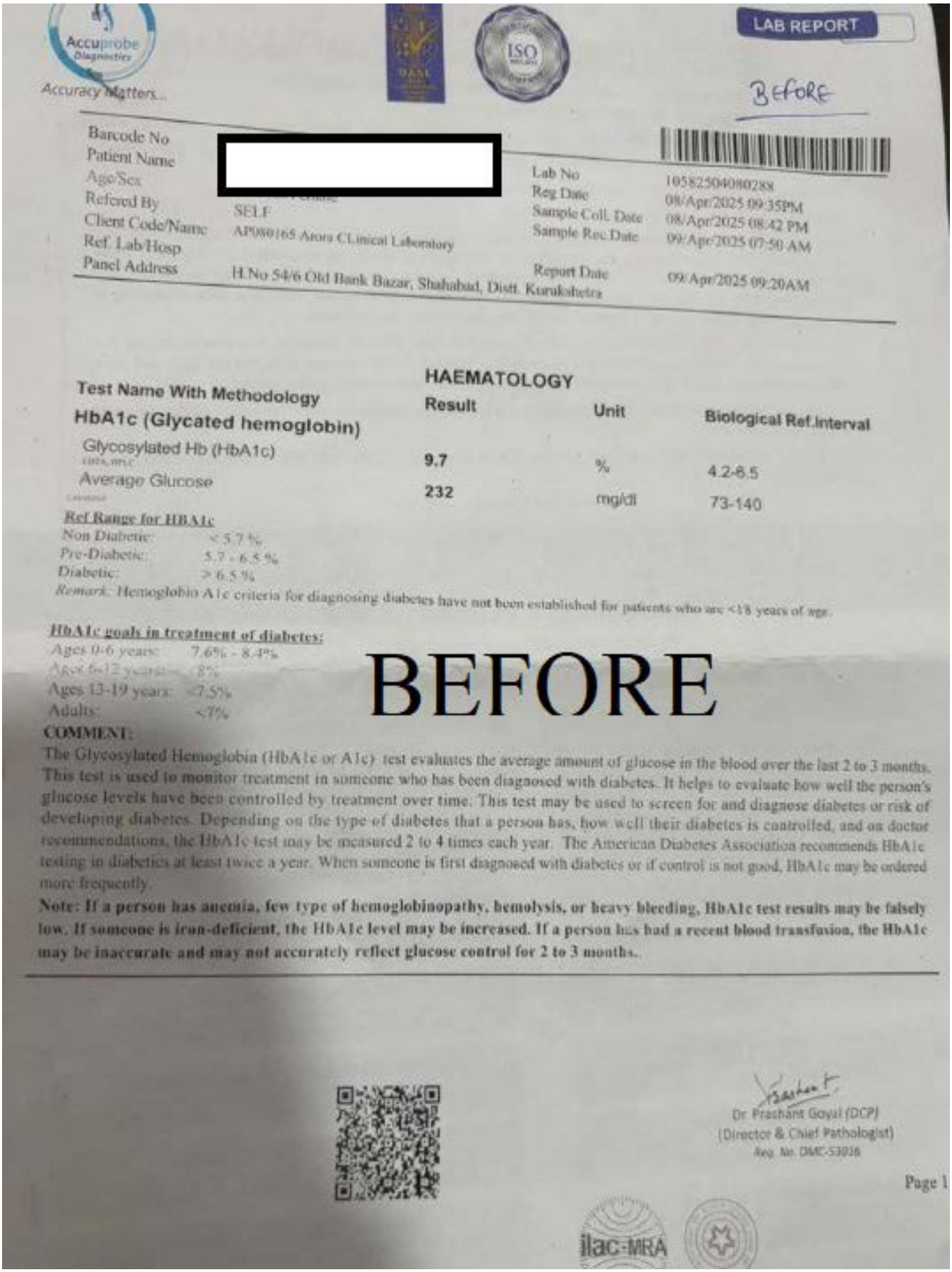
17. Chattopadhyay, K., Wang, H., Kaur, J., Nalbant, G., Almaqhawi, A., Kundakci, B., et al. (2022). Effectiveness and safety of Ayurvedic medicines in Type 2 Diabetes Mellitus management: A systematic review and meta-analysis. *Frontiers in Pharmacology, 13*, 821810. https://doi.org/10.3389/fphar.2022.821810
18. Edavalath, M. (2018). Ayurvedic dietary principles in prevention and management of diabetes: A review. *Endocrinology, Diabetes and Obesity, 1*. https://doi.org/10.31532/EndocrinolDiabetesObes.1.1.002
19. Woodyard, C. (2011). Exploring the therapeutic effects of yoga and its ability to increase quality of life. *International Journal of Yoga, 4*(2), 49–54. https://doi.org/10.4103/0973-6131.85485
20. Sridharan, K., Mohan, R., Ramaratnam, S., & Panneerselvam, D. (2011). Ayurvedic treatments for diabetes mellitus. *Cochrane Database of Systematic Reviews, 2011*(12), CD008288. https://doi.org/10.1002/14651858.CD008288.pub2
21. Dixit, J. V., Badgujar, S. Y., & Giri, P. A. (2022). Reduction in HbA1c through lifestyle modification in newly diagnosed type 2 diabetes mellitus patient: A great feat. *Journal of Family Medicine and Primary Care, 11*(6), 3312–3317. https://doi.org/10.4103/jfmpc.jfmpc_1677_21
22. Acharya, M. J., Chaudhary, G., Richa, & Nilamwar, S. S. (2025). The great revert of uncontrolled Type 2 Diabetes Mellitus with diabetic neuropathy by Ayurvedic intervention: A case study relating to Pittaj Prameha - subtype Haridra Meha. *International Journal of Advanced Research, 13*(6), 835–849. https://www.journalijar.com
23. Agnivesha. (2014). *Charaka Samhita*, elaborated by Charaka and redacted by Dridhabala (Vol. 1, Nidanasthana, Chapter 4, Verses 36–37) (V. Shukla & R. D. Tripathi, Eds.). Chaukhambha Sanskrit Sansthan.
24. Sushruta. (2014). *Sushruta Samhita*, Nidanasthana, Chapter 6, Verses 12–13. With Nibandhasangraha by Dalhanacharya and Nyayachandrika by Gayadasacharya. Chaukhambha Sanskrit Sansthan.
25. Agnivesha. (2014). *Charaka Samhita*, elaborated by Charaka and redacted by Dridhabala (Vol. 2, Chikitsasthana, Chapter 6, Verses 4–6) (V. Shukla & R. D. Tripathi, Eds.). Chaukhambha Sanskrit Sansthan.
26. Agnivesha. (2022). *Charaka Samhita*, elaborated by Charaka and redacted by Dridhabala (Vol. 2, Chikitsasthana, Chapter 6, Verses 44–46) (V. Shukla & R. D. Tripathi, Eds.). Chaukhambha Sanskrit Pratishthan.
27. Sushruta. (n.d.). *Sushruta Samhita*, Chikitsasthana, Chapter 11 (Prameha Chikitsitam), Verses 1–3. With Nibandhasangraha commentary by Dalhanacharya and Nyayachandrika tika by Gayadasacharya. Chaukhambha Surbharati Prakashan.
28. Sushruta. (n.d.). *Sushruta Samhita*, Chikitsasthana, Chapter 11 (Prameha Chikitsitam), Verse 9. With Nibandhasangraha commentary by Dalhanacharya and Nyayachandrika tika by Gayadasacharya. Chaukhambha Surbharati Prakashan.
29. Agnivesha. (2022). *Charaka Samhita*, elaborated by Charaka and redacted by Dridhabala (Vol. 1, Sutrasthana, Chapter 17, Verse 7) (V. Shukla & R. D. Tripathi, Eds.). Chaukhambha Sanskrit Pratishthan.
30. Peres, M., Costa, H. S., Silva, M. A., & Albuquerque, T. G. (2023). The health effects of low glycemic index and low glycemic load interventions on prediabetes and type 2 diabetes mellitus: A literature review of RCTs. *Nutrients, 15*(24), 5060. https://doi.org/10.3390/nu15245060
31. Panwar, A., Kumar, A., & Pahwa, P. (2024). An Ayurvedic management of diabetic retinopathy - A case report. *Journal of Ayurveda and Integrated Medical Sciences, 9*(1), 318–323. https://jaims.in/jaims/article/view/3045
32. Wadhwa, R., et al. (2018). Management of complication of diabetes through Panchakarma. *International Journal of Medicinal Plants and Natural Products, 4*(4), 1–4. https://doi.org/10.20431/2349-4859.04
33. Soni, D., & Kumar, D. (2021). A short communication on Madhumeha (Diabetes Mellitus) according to Ayurvedic classics: A brief review. *International Research Journal of Ayurveda & Yoga, 4*(11), Article 118. https://doi.org/10.47223/IRJAY.2021.4118
34. Katwal, S., Shrivastava, A., & Sharma, D. (2017). Prevention of Madhumeh and its complications through Ayurveda. *International Journal of Ayurveda and Pharma Research, 5*(2), 63–66.
35. Thorup, A. C., Kristensen, H. L., Kidmose, U., Lambert, M. N. T., Christensen, L. P., Fretté, X., Clausen, M. R., Hansen, S. M., & Jeppesen, P. B. (2021). Strong and bitter vegetables from traditional cultivars and cropping methods improve the health status of type 2 diabetics: A randomized control trial. *Nutrients, 13*(6), 1813. https://doi.org/10.3390/nu13061813
36. Ali, M., Ahmed, S., Islam, M. R., Ahamed, S., Rahaman, M., Khatun, M., & Alam, M. A. (2024). Diabetes mellitus control including fruits in diet: Exhaustive review and meta-analysis. *Journal of Diabetes Research, 3*, 43–59.
37. Pitta, S., Devi, K. P., & Shailaja, B. (2014). Diabetes mellitus (Madhumeha) – An Ayurvedic review. *International Journal of Pharmacy and Pharmaceutical Sciences, 6*(Suppl 2), Article ID unknown.
38. Sahu, P., et al. (2017). Prevention & control of diabetes mellitus. *International Journal of Applied Ayurved Research, 3*(3), 487–498.
39. Raghuwanshi, M. S., Kumari, S., Sharma, K., Veena, D., & Sharama, Y. (2023). Critical review on the concept of Madhumeha (Diabetes Mellitus). *International Journal of Research Publication and Reviews, 4*(10), 3229–3236.
40. Hawton, K., Ferriday, D., Rogers, P., Toner, P., Brooks, J., Holly, J., Biernacka, K., Hamilton-Shield, J., & Hinton, E. (2018).

Slow down: Behavioural and physiological effects of reducing eating rate. *Nutrients, 11*(1), 50. https://doi.org/10.3390/nu11010050

41. Sharma, M., Vyas, P. P., & Singhal, H. K. (2023). Role of Pathya-Apathya in the management of Prameha (Type-2 Diabetes Mellitus). *Ayushdhara, 10*(Suppl2), 38–43. https://ayushdhara.in/index.php/ayushdhara/article/view/1211
42. Sidar, V. K., Ratre, G. R., & Bhagat, P. (2023). Role of Pathya & Apathya in Madhumeha: A review. *World Journal of Pharmaceutical and Medical Research, 9*(1), 48–52.
43. Lohar, T., & Kulkarni, M. (2025). Role of Pathya-Apathya in the management of Prameha (Type-2 Diabetes Mellitus). *Journal of Ayurveda and Integrated Medical Sciences, 9*(10), 75–80. https://www.jaims.in/jaims/article/view/3933
44. Vyas, P., Binawara, B. K., & Narnolia, P. K. (2024). Effect of Gurmar (*Gymnema sylvestre*) leaf powder on glycemic control in Type 2 Diabetes Mellitus. *International Journal of Pharmaceutical and Clinical Research, 16*(7), 724–728.
45. Sharma, S., & Kumar, R. (2023). Role of Karela in diabetes: A review. *Journal for Research in Applied Sciences and Biotechnology, 2*, 81–89. https://doi.org/10.55544/jrasb.2.1.10
46. Maji, S. (2020). Role of neem leaves in diabetes and obesity. *Unpublished manuscript*.
47. Jagetia, G. (2018). A review on the role of jamun, *Syzygium cumini* Skeels in the treatment of diabetes. *International Journal of Complementary & Alternative Medicine, 11*, Article ID 00374. https://doi.org/10.15406/ijcam.2018.11.00374
48. Kaur, S., Singh, S., Sabharwal, S., Anand, N., Khanna, V., & Baghel, D. (2021). An overview on Giloy (*Tinospora cordifolia*), Giloy Ghanvati with emphasis on hyperlipidemia, immunity and diabetes. *Asian Pacific Journal of Health Sciences, 8*, 69–74. https://doi.org/10.21276/apjhs.2021.8.4S.12
49. Gaddam, A., Galla, C., Thummisetti, S., Marikanty, R. K., Palanisamy, U. D., & Rao, P. V. (2015). Role of fenugreek in the prevention of type 2 diabetes mellitus in prediabetes. *Journal of Diabetes and Metabolic Disorders, 14*, 74. https://doi.org/10.1186/s40200-015-0208-4
50. Majeed, M., Narayanan, N., Mundkur, L., Prakasan, P., & Nagabhushanam, K. (2023). Super fruit amla (*Emblica officinalis* Gaertn) in diabetes management and ensuing complications: A concise review. *Nutraceuticals, 3*, 329–352. https://doi.org/10.3390/nutraceuticals3030026

**How to cite this article:**
Acharya Manish, Dr. Gitika Chaudhary , Dr. Richa, Dr. Divya, Dr. Tanu RaniMadhumeha (T2dm) And Its Management Through Ayurveda: A Clinical Case Report IRJAY. [online] 2025;8(6);92-103
Available from: https://irjay.com
DOI link- https://doi.org/10.48165/IRJAY.2025.80612

**Fig 2 Laboratory test reports**



Accuprobe Diagnostics
Accuracy Matters...

LAB REPORT

BEFORE

| | | | |
|---|---|---|---|
| Barcode No | | Lab No | 105825040080288 |
| Patient Name | [redacted] | Reg Date | 08/Apr/2025 09:35PM |
| Age/Sex | | Sample Coll. Date | 08/Apr/2025 08:42 PM |
| Refered By | SELF | Sample Rec.Date | 09/Apr/2025 07:50 AM |
| Client Code/Name | AP080165 Arora Clinical Laboratory | | |
| Ref. Lab/Hosp | | Report Date | 09/Apr/2025 09:20AM |
| Panel Address | H.No 54/6 Old Bank Bazar, Shahabad, Distt. Kurukshetra | | |

**HAEMATOLOGY**

| Test Name With Methodology | Result | Unit | Biological Ref.Interval |
|---|---|---|---|
| **HbA1c (Glycated hemoglobin)** | | | |
| Glycosylated Hb (HbA1c) | 9.7 | % | 4.2-6.5 |
| Average Glucose | 232 | mg/dl | 73-140 |

**Ref Range for HBA1c**
Non Diabetic: < 5.7 %
Pre-Diabetic: 5.7 - 6.5 %
Diabetic: > 6.5 %
*Remark:* Hemoglobin A1c criteria for diagnosing diabetes have not been established for patients who are <18 years of age.

**HbA1c goals in treatment of diabetes:**
Ages 0-6 years: 7.6% - 8.4%
Ages 6-12 years: <8%
Ages 13-19 years: <7.5%
Adults: <7%

BEFORE

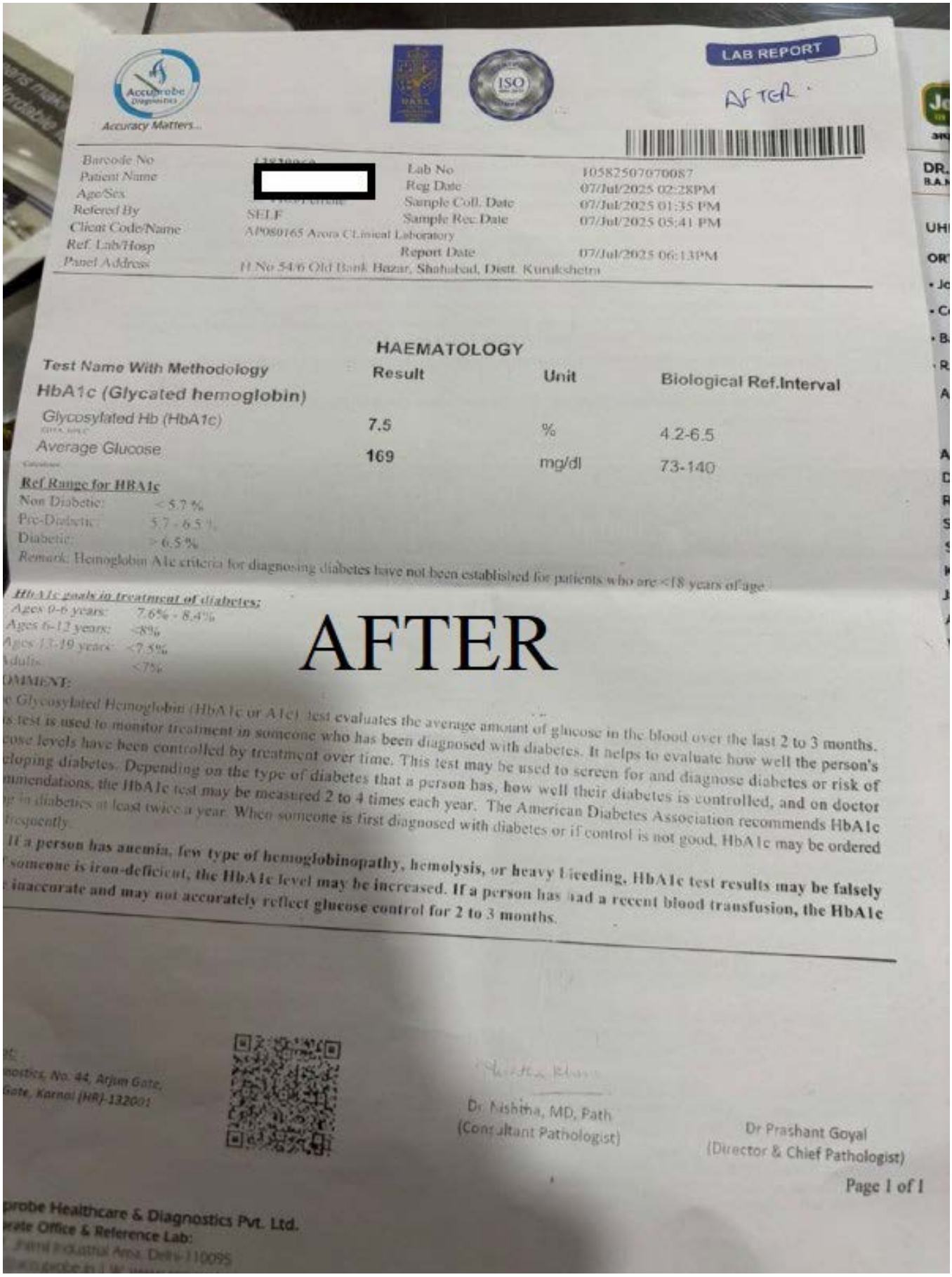
**COMMENT:**
The Glycosylated Hemoglobin (HbA1c or A1c) test evaluates the average amount of glucose in the blood over the last 2 to 3 months. This test is used to monitor treatment in someone who has been diagnosed with diabetes. It helps to evaluate how well the person's glucose levels have been controlled by treatment over time. This test may be used to screen for and diagnose diabetes or risk of developing diabetes. Depending on the type of diabetes that a person has, how well their diabetes is controlled, and on doctor recommendations, the HbA1c test may be measured 2 to 4 times each year. The American Diabetes Association recommends HbA1c testing in diabetics at least twice a year. When someone is first diagnosed with diabetes or if control is not good, HbA1c may be ordered more frequently.

**Note: If a person has anemia, few type of hemoglobinopathy, hemolysis, or heavy bleeding, HbA1c test results may be falsely low. If someone is iron-deficient, the HbA1c level may be increased. If a person has had a recent blood transfusion, the HbA1c may be inaccurate and may not accurately reflect glucose control for 2 to 3 months.**

Dr. Prashant Goyal (DCP)
(Director & Chief Pathologist)
Reg. No. DMC-53036

Page 1

ilac-MRA



Accuprobe Diagnostics
Accuracy Matters...

LAB REPORT

AFTER

| | | | |
|---|---|---|---|
| Barcode No | | Lab No | 1058250707008 7 |
| Patient Name | [redacted] | Reg Date | 07/Jul/2025 02:28PM |
| Age/Sex | | Sample Coll. Date | 07/Jul/2025 01:35 PM |
| Refered By | SELF | Sample Rec.Date | 07/Jul/2025 05:41 PM |
| Client Code/Name | AP080165 Arora Clinical Laboratory | | |
| Ref. Lab/Hosp | | Report Date | 07/Jul/2025 06:13PM |
| Panel Address | H No 54/6 Old Bank Bazar, Shahabad, Distt. Kurukshetra | | |

## HAEMATOLOGY

| Test Name With Methodology | Result | Unit | Biological Ref.Interval |
|---|---|---|---|
| **HbA1c (Glycated hemoglobin)** | | | |
| Glycosylated Hb (HbA1c) | 7.5 | % | 4.2-6.5 |
| Average Glucose | 169 | mg/dl | 73-140 |

**Ref Range for HBA1c**

| | |
|---|---|
| Non Diabetic: | < 5.7 % |
| Pre-Diabetic: | 5.7 - 6.5 % |
| Diabetic: | > 6.5 % |

Remark: Hemoglobin A1c criteria for diagnosing diabetes have not been established for patients who are <18 years of age.

**HbA1c goals in treatment of diabetes:**

| | |
|---|---|
| Ages 0-6 years: | 7.6% - 8.4% |
| Ages 6-12 years: | <8% |
| Ages 13-19 years: | <7.5% |
| Adults: | <7% |

COMMENT:

e Glycosylated Hemoglobin (HbA1c or A1c) test evaluates the average amount of glucose in the blood over the last 2 to 3 months. is test is used to monitor treatment in someone who has been diagnosed with diabetes. It helps to evaluate how well the person's cose levels have been controlled by treatment over time. This test may be used to screen for and diagnose diabetes or risk of eloping diabetes. Depending on the type of diabetes that a person has, how well their diabetes is controlled, and on doctor mmendations, the HbA1c test may be measured 2 to 4 times each year. The American Diabetes Association recommends HbA1c e in diabetes at least twice a year. When someone is first diagnosed with diabetes or if control is not good, HbA1c may be ordered frequently.

**If a person has anemia, few type of hemoglobinopathy, hemolysis, or heavy bleeding, HbA1c test results may be falsely someone is iron-deficient, the HbA1c level may be increased. If a person has had a recent blood transfusion, the HbA1c inaccurate and may not accurately reflect glucose control for 2 to 3 months.**

Dr. Nishita, MD, Path
(Consultant Pathologist)

Dr Prashant Goyal
(Director & Chief Pathologist)

Page 1 of 1

Accuprobe Healthcare & Diagnostics Pvt. Ltd.
Corporate Office & Reference Lab: