



ROLE OF PATHYA-APATHYA AND YOGIC PROCEDURES IN THE MANAGEMENT OF MADHUMEHA (DIABETES MELLITUS)

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ABSTRACT

According to *Ayurveda*, sickness and the body health are both dependent on diet- *Ahara Sambhavam Vastuh Rogaschahara Sambhavah*. *Pathya Ahara* and *Pathya Vihara* are essential to preserving our health. *Nidana Parivarjana* is the initial course of treatment for any illness in *Ayurveda*. The first thing a patient wants to know when they attend a hospital is what the dos and don'ts of a specific condition. *Madhumeha* is a global problem now a days, it can be compared with diabetes on the basis of its signs and symptoms. Both poorer and higher socioeconomic levels have significant incidence rates of *Madhumeha* the disease is diabetes in both under certain conditions. Solving a situation like this requires an all-encompassing strategy. As a result, knowledge of *Madhumeha's Pathya* and *Apathya* is crucial. Understanding *Pathya* and *Apathya* is crucial from *Kriyakala's* perspective and aids in the breakdown of a specific sickness, namely *Samprapti Vighatana*. An attempt is made to learn about the lifestyles based on *Yoga* and *Ayurveda (Pathya)* and the habits that should be avoided (*Apathya*) in *Madhumeha* in this article.

INTRODUCTION

Preventive and protective aspects of health are highly valued in *Ayurveda*, as opposed to therapeutic aspects. A balanced diet and lifestyle are advised, along with the concepts of *Dinacharya*, *Ritucharya*, *Sadvritta*, and *Acharya Rasayana*, all of which are thoroughly discussed in the classics. However, under the present circumstances, very few people are able to adhere to these principles. Because of this, there has been a significant increase in lifestyle diseases, such as *Madhumeha*, a category of urinary disorders defined in particular by frequent and abnormal urination. *Medha Pradadoshaja Vyadhi* is *Madhumeha*. The signs and symptoms of *Madhumeha* are similar to those of diabetes. Men have slightly higher rates of diabetes (9.6%) than women (9.0%), with 8.8% of adults having the disease, according to the International Diabetes Federation (IDF). According to recent global figures, type 2 diabetes mellitus and impaired glucose tolerance (IGT), a prediabetic disease, affect between 463 million and 374 million people worldwide. It is projected that there will be a 95% increase in Type 2 diabetes cases in India between 1995 and 2025. In India, the percentage of people with diabetes increased from 7.1% in 2009 to 8.9% in 2019.

In modern medicine, management of type 2 diabetes

1. Diet 2. Exercise 3. Lifestyle Modification 4. Medication

Ayurveda line of treatment 1. *Nidan Priwarjan* 2. *Shodhan Chikitsa* 2 a *Saman Chikitsa* and *pathya apathya* are included.

According to *Acharya Loimbhraja*

**“Pathye Sati Gadarthasya Kimaushadha Nishevanaih
Pathye Asati Gadarthasya Kimaushadha Nishevanaih”
(Vaidhyakjeevan)**

Acharya Lolimbhraja has said that ‘if a person is taking *Pathya*, then there is no need of medicine and if a person is taking *Apathya*, there is no benefit of medicine’.

Pathya refers to food and exercise that are good for the mind and *Srotasa* (channels) but not injurious to the body. The term "*Apathya*" should be used to describe behaviours and foods that are disagreeable to the body and mind.

AIMS AND OBJECTIVES

The aims and objectives of the article is how taking *Pathya* and avoiding *Apathya*, along with different *Yogic* procedures, are effective in management of *Madhumeha*.

MATERIALS AND METHOD

Materials used for the article are various *Samhitas* and literatures of *Ayurveda* and *Yoga*. After detail reviewing

of literatures, its extract is being presented here *Pathya: Beneficial Practices Pathya Apathya in Madhumeha.*

Table no. 1: Aaharaj-Pathya in Madhumeha.

ANNAPANA VARGA	AAHAR DRAVYA
SHOOKDHANYA	Yava (barley-Nivar, kangu), Shashtika and Shali (Bown rice), Kulattha, Mukundaka, Kalma Kodrava (Kodo Millets), Bajra (Millet), Chana.
SHAMIDHANYA	Mudga (green gram), Kulattha (horse gram). Pigeon Pea, Laja
MANSA-VARGA	Janghal Mansa (Tittira, Barhi, Daksha), Kapot (pigeon), Shashak (Rabbit)
SHAKA	Pattura, Musakarni, and Arka, Guduchi, Triphala, Kapittha, Jambu, Kaseru, Kamala Kanda, Kamal Utpal
PHALA	Sobhanjana, Patola, Karavellaka, karkota ,plam fruit ,Vyaghri, Udumbara garlic pearls, Katli, Amla (Emblica Officinalis),kharajura, Trikatu, Tindika phala, Khadira, Kalinga,
HARITA-VARGA	Rasona (<i>Allium sativum</i>), Haridra,
MADHYA-VARGA	old Sura (old liquor)
JALA VARGA	Endra Jal, Ushna Jal
KRITANNA-VARGA	Peya, Yusha
AAHAROPYOGI-VARGA	Taila (Mustard oil or Linseed oil),

DIETARY MANAGEMENT

For those who have diabetes, proper nutrition, low-glycemic meals, physical activity, and dietary management are essential. A good diet and regular exercise can help you maintain blood glucose levels within the range prescribed by your healthcare provider. You'll live longer and use less insulin or diabetes medicine as a result of this.

EAT LOW GLYCAEMIC INDEX FOOD.

The glycemic index ranks foods including breads, cereals, dairy products, fruits, and vegetables according to how much of an impact they have on blood sugar levels. Glycemic values of foods are measured, ranked, and assigned by experts using the glycemic index. This explains the impact of each on blood sugar levels.

PATHYA VIHARA IN MADHUMEHA

- The *Madhumeha roga* also mentions *Vaman* and *Virechana Karma*.
- Being happy and stress-free.
- Additionally helpful for *Madhumeha roga*, yoga poses enhance digestion and circulation.

PHYSICAL EXERCISE

Engaging in physical activity helps people lose weight and increases their sensitivity to insulin, which lowers blood sugar levels. Exercise during the entire day at the same time.

Types

- Morning walk, jogging, swimming, evening walk, cycling, aerobic dance.
- *Yogasanas: Paschimottanasan, Halasan.*
- *Pranayam: kapalbhati, anulom vilom.*

YOGA

1. Suryanamaskar

Increase the blood supply to various parts of body which help to burn out the excessive fat.

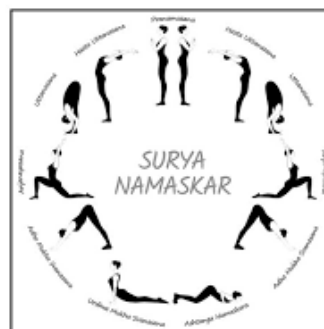


Figure 1: Suryanamaskar.

2. Kapalbhati (Pranayamas)

Breathing technique with forceful exhalations and automatic inhalations. It is the best option for diabetes as it stimulates the vagus nerve by contraction of the abdominal muscle and Abdominal pressure created during exhalation improves the efficiency of β -cells in the pancreas.

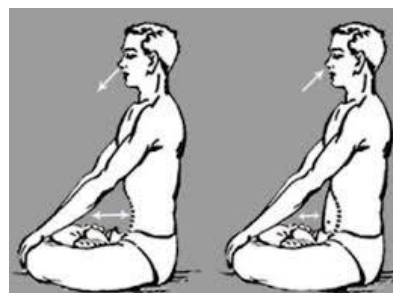


Figure 2: Kapalbhati.

3. Anulom Vilom

There are many Nadis in the body. Just as flowers are tangled in a necklace, similarly, these Nadis are intertwined and entangled, and their entanglement obstructs the flow of Prana. Therefore, unless these Nadis are purified, one cannot practice Pranayama or gain knowledge of the bodily elements. *Nadi Shodhana* Pranayama strengthens the muscles and nerves of the heart, lungs, and brain, due to which they remain healthy. Also, it calms and concentrates the mind. Through its practice, stress, anger, anxiety, irritability, restlessness, high blood pressure, migraines, sleeplessness, etc. can be managed. It is beneficial in disorders of the mind, which are also causative factors of *Madhumeha*.



Figure 3: *Suryanamaskar*.

5. Mandukasana (Frog pose)

Stimulate the pancreas to stimulate more insulin and improve insulin secretion.

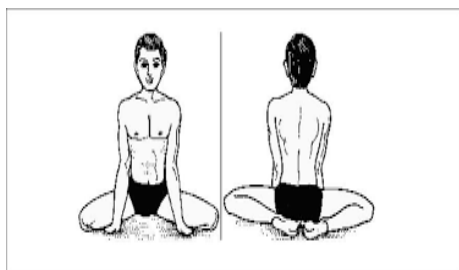


Figure 5: *Mandukasana*.

6. Ardha Matsyendrasana This stimulates the kidneys, pancreas, small intestine, gall bladder, and liver, which help with digestion and remove toxins from the body.



Figure 6: *Ardha Matsyendrasana*.

7. Sarvangasana (Shoulder stand)

Improve the function of the pancreas and intestine, which help in controlling blood sugar level.



Figure 7: *Sarvangasana*.

8. Dhanurasana (Bow pose)

Increase blood circulation, better circulation improves the amount of insulin to act upon the blood glucose level at the skeletal muscle site to utilise the blood glucose.



Figure 8: *Dhanurasana*.

10. Halasana (Plough pose)

It stimulates the pancreas, spleen, and immune system. Asanas have positive effect on pancreases and also insulin function to get best result asanas has to be done for longer duration.



Figure 10: *Halasana*.

11. Meditation

It's a crucial *yoga* stage. It promotes rejuvenation and stretching. *Madhumeha* exercise and yoga therapy work well together because they lower blood sugar levels, which lowers the body's requirement for insulin. Additionally, meditation is calming, relaxing, and invigorating.



Figure 11: *Meditation*.

TABLE NO. 2: *APATHYA AAHARA IN MADHUMEHA ROGA.*

<i>ANNAPANA VARGA</i>	<i>AAHAR DRAVYA</i>
<i>SHOOKDHANYA</i>	<i>Nutan Iyanak, Yavak, Uddalak, Mahavrih, Naishadha, Itkat, Mukund Pramodak and Sugandhaka Raice</i>
<i>SHAMIDHANYA</i>	<i>Nutan Pea, Urad dal, Arhar, Chana</i>
<i>MANSA-VARGA</i>	<i>Aanup, Aotak Varga</i>
<i>SHAKA-VARGA</i>	<i>Excessive quantity</i>
<i>MADHYA-VARGA</i>	<i>Nav Madya</i>
<i>JALA-VARGA</i>	<i>Rain river water, samudr jal, sea water,</i>
<i>GORAS-VARGA</i>	<i>Dugdha, Dadhi, Mastu, Excessive Ghee</i>
<i>KRITANNA-VARGA</i>	<i>Til-pinyaka, Pishtana, Krishara, Vilepi</i>
<i>IKSHU VARGA</i>	<i>Sarkarā, Gur, raab, Mishri, Ikshu Vikar</i>

There are some foods that are not recommended for consumption

The same foods that are less healthy for people without type 2 diabetes should be avoided or limited for those who have the disease. Additionally, items that significantly alter blood sugar levels should be avoided. When adhering to a low- or very-low-carb eating plan, an individual should refrain from consuming significant amounts of

- Simple carbohydrates
- Saturated and trans fats
- Sugar in the form of candy, ice cream, and cakes.

To be more precise, people ought to consume less of

- Packaged and fast foods, such as baked goods, sweets, chips, and desserts.
- White bread
- White pasta
- White rice
- Fried foods such as French fries
- Sugary cereals
- Sugary drinks
- Processed meats
- Red meat.

APATHYA VIHARA IN MADHUMEHA

One who is having *Madhumeha Roga* should not practice sleeping during the day,, excessive sexual intercourse, smoking, *Swedana Karma*, or *Raktamokshana*.

- The patient ought to abstain from *VegaVidharana* (particularly *Vaman Vega*).
- The patient should not practice habits like *Kama* (lust), *Chinta* (worry), *Bhaya* (fear), *Krodha* (anger), and *Shoka* (grief). These factors also cause *Madhumeha Roga*.
- Sedentary lifestyle which can cause *Madhumeha roga*.

It is not advisable for the patient to engage in behaviours such as *Kama* (desire), *Chinta* (anxiety), *Bhaya* (fear), *Krodha* (rage), and *Shoka* (grief). *Madhumeha Roga* is also brought on by these circumstances.

LIFE STYLE MODIFICATION

Modifications to lifestyle are essential for managing *Madhumeha*, in addition to food modifications. The

following routines can be incorporated into daily life to help enhance general health and wellbeing: Frequent Exercise, Stress Reduction, Enough Sleep, Quitting Smoking, Restrict your alcohol intake. If you decide to consume alcohol, make sure to have it with meals and in moderation. Drinking too much alcohol might alter blood sugar levels and make diabetic medications less effective. Frequent Observation: Healthcare professionals advise using a glucometer to periodically check blood sugar levels. To see trends and make the required corrections, monitor food intake, exercise, medication compliance, and any symptoms.

Medication

In modern medicine, to treat diabetes mellitus, various types of oral antidiabetic drugs like biguanides, sulphonylurea, meglitinides, thiazolidinediones, DPP-4 inhibitors, GLP-1 analogs, and S SGLT2 inhibitors are used. In most cases, these medicines initially control blood glucose levels very well, but over time, they lose their efficacy and the patient has to switch to another class of antidiabetic agents. Besides, long-term use of these drugs also produces various adverse effects.

Herbal Remedies and Supplements In addition to traditional treatment methods, ayurvedic herbs and supplements may help control *Madhumeha*. However, prior to adding any new supplements to your regimen, it is imperative that you speak with a licensed *Ayurvedic* practitioner or healthcare professional.

The names "*Gurmar*," "*Cinnamon* (*Cinnamomum verum*), *Fenugreek* (*Trigonella foenum-graecum*), and Indian Gooseberry (*Emblica officinalis*) are all associated with *Gymnema*. Indian gooseberry, sometimes referred to as *amla*, is high in antioxidants and vitamin C, which may help preserve beta cells in the pancreas and enhance insulin release.

DISCUSSION

As *Aacharya Charaka* has quoted, "*Heturaseva Vihita Yathaiva Jatasya Rogasya Bhavechikitsa*" (C.Chi.6/53).

It implies that we would never get any disease if we stayed away from its contributing causes. The idea of interpreting *Aahara* based on the nature of *Kostha*, *Agni*,

Roga, *Rogi Prakriti*, *Desha*, *Ritu*, *Bala*, and so on. Moreover, the Ayurvedic-only forms of *Aahara*. If we adhere to these scientifically based beliefs, they can help maintain our health. Several Acharyas have detailed the aforementioned *Dravya* in their writings.

PATHYA AAHARA

Table No. 1 provides information on a healthy diet that *Madhumeha* *Rogi* or any other healthy person can follow to avoid contracting *Madhumeha*.

- *Deepana*, *Pachana*, *Krimighana*, *Srotoshodhaka*, *Dhatu Poshaka*, *Varnya*, and *Rasayana* are some examples of these *Dravya* deeds. These attributes support the upkeep of *Tridosha* and *Agni's Samyavastha* as well as the formation of *Dhatu's* virtues.

PATHYA VIHARA

- *Shodhan Karma* and other *Panchkarma* therapies are particularly helpful since they reduce excess *Pitta* and *Kapha*.

- *Yogic* practices can help us better digest food and keep our minds at ease. Techniques like deep diaphragmatic breathing improve and regulate blood sugar levels, stimulate the digestive system, and repair certain areas of the nervous system.

- These *Yogic* practices, together with *Pathya Aahara* and *Vihara*, are beneficial for both individuals who are afflicted by different forms of *Madhumeha roga* and those who are eager to maintain their health.

APATHYA AHARA

Table No. 2 provides information on *Dravya*, which *Madhumeha* *Rogi* shouldn't eat.

- The majority of these *Dayas*, such as *anupa mansa tambul*, *madya anupa*, *dadhi*, *Takr*, *ghrit*, *tail*, *ikshuvikaragudha*, *pishtann*, *Shura*, *urad*, *adhyashan*, and *virudashan*, can aggravate *Kapha*.
- Because *Ati-Amla*, *Ati-Lavan*, and *Ati-Madhur Dravyas* aggravate *Kapha Dosha*, *Madhumeha* *Rogi* should avoid consuming these *Dravyas*.

APATHYA VIHARA

- Getting *Panchkarma* therapy (*Pratikarma-RituVaishamy*) during the wrong time of year, considering the patient's *Prakriti*, *Ritu* (season), and *Desh* (location), might upset the balance of *Tridosha* in a healthy person and vitiate *Kapha dosha* in *Madhumeha* *Rogi*.

The patient should not engage in behaviours such as *Krodha* (rage), *Shoka* (grief), *Bhaya* (fear), *Chinta* (anxiety), and *Kama* (desire). Even after the patient has eaten a healthy meal, these elements are the cause of their indigestion.

- The primary causes of diabetes are *Mansika Bhavas* (mental factors), including *Kaama* (lust), *Krodha* (anger), *Lobha* (greedyness), *Moha* (attachment),

Irsha (jealousy), *Shoka* (grief), *Manodvega* (mental disturbance), and *Bhaya* (fear). Therefore, daily *Yoga* practices are recommended to keep the mind clear of these *Madhumeha* *Roga* mental elements.

CONCLUSION

Medicines by themselves are not sufficient to treat diabetes mellitus, a metabolic disease. The oldest holistic healing science in existence, *Ayurveda*, gives equal weight to *Mansika Nidana* and *Aaharaja Viharaja* for treating any kind of illness. It is known as a *Yapya* illness (not entirely curable or difficult to cure) and cannot be simply cured, according to *Ayurveda Madhumeha*. People with diabetes can improve and control blood sugar, prevent problems, and boost general well-being by practicing healthy (*Pathya*) *Ahara-Vihara* habits, including eating a balanced diet, doing frequent *Yoga*, exercising, and effectively managing stress. On the other hand, the best way to treat diabetes and enhance quality of life is to abstain from unhealthy (*Apathya*) behaviours such as excessive sugar intake, sedentary activity, and bad lifestyle choices.

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