

**ROLE OF LIFESTYLE INTERVENTION AND YOGA IN PREVENTION AND  
MANAGEMENT OF MADHUMEHA**Dr. Arti Pathania\*<sup>1</sup> and Dr. T. C. Thakur<sup>2</sup><sup>1</sup>MD Scholar Final Year, Deptt of Swasthvritta, R.G.P.G. Ayd. College, Paprola, Distt Kangra.<sup>2</sup>Prof. MD (Ayu), Deptt. of Swasthvritta, R.G.P.G. Ayd. College, Paprola, Distt Kangra.**\*Corresponding Author: Dr. Arti Pathania**

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**ABSTRACT**

*Ayurveda* describes the importance of preventive aspects of health rather than curative. Centuries ago: *Ayurveda* laid the concept of *Dincharya* (Daily Regimen) *Ritucharya* (seasonal regimen) *Sadvritta* (Social conduct) as well as established guidelines for healthy lifestyle. But in current era hardly anyone follow it. As a result there is dreadful rise in lifestyle disorders. Diabetes being the most threatening among them. India is emerging as a capital for Diabetes in the world. It is the 2<sup>nd</sup> most common cause of death in India. Diabetes is lifestyle disorder that cannot be managed only by medical treatment. Lifestyle modification and *Yoga* plays an important role in its management. Lifestyle intervention and *yoga* may play a significant role in management of weight, controlling blood glucose level along with prevention of long term and short term complications of diabetes. Lifestyle intervention and *yoga* therapy has emerged out as a revolutionary technique to fight this disease. As *yoga* including *asanas* and *pranayam* provide an ideal care for prevention and management of *Madhumeha*.

**KEYWORDS:** Diabetes, *Yoga*, Lifestyle, *Asanas*, *Pranayam*.**INTRODUCTION**

The primary aim of *Ayurveda* has the holistic approach for the maintenance of health and well being. The basic concept of *Ayurveda* about the healthy person is to maintain the equilibrium of *Sharirika* and *Mansika Dosha*. Keeping in view the holistic approach of *Ayurveda*, it may be concluded that health (Homeostatic / physiological atmosphere) can be achieved only by maintaining the equilibrium in both *Sharirika* (*Vata*, *Pitta*, *Kapha*) and *Mansika Dosha* (*Satva*, *Raja*, *Tama*), as *Sushruta* also had quoted.<sup>[1]</sup>

These all are regulated directly by *Dosha*, *Dhatu*, *Agni*, *Mala* etc and indirectly by *Ahara* and *Vihara*. In modern era there are so many diseases emerging due to irregularities in *Ahara* / *Vihara* and may be compared with metabolic abnormalities. So it is the need of time to review the ancient systems of medicine in order to apply measure prevalent in these systems in preventing the coming epidemic of lifestyle disorders which are preventable with changes in lifestyle, and environment. *Madhumeha* is attracting global importance, as it is rocking the world as non infectious epidemic/pandemic. It is often referred to as a 'Silent Killer'. Type 2 DM forms 95% of all diabetics. The WHO has projected that the global prevalence of Type 2 DM may be more than double i.e., from 135 million of 1995 to 300 million by 2025. According to WHO, its percentage may go as high

as 40-45% in 2020. So, there is intense need to know the graveness of the disease and to understand the possible ways of preventive aspects of this disorder. Substantial evidence now exist to suggest that diabetes is strongly associated with increasing urbanization, population growth, aging, patient' s unhealthy lifestyle choices, reduced physical activity, obesity, behavioural patterns, socioeconomic changes and most important western style diet.

**AIMS AND OBJECTIVES**

To assess the effect of *Yoga* and lifestyle guidelines for prevention of *Madhumeha*.

**MATERIAL AND METHODS**

Lifestyle intervention and *Yoga* schedule was prepared on the basis of *Ayurvedic* principles. Material is collected from *Charak samhita*, *sushruta samhita* and from other Publications.

**ETIOLOGY****Lifestyle Related Etiology:**

*Asayasukham* (habituation to sitting on soft cushions for long periods) and *Swapana-sukham* (prolonged sleeping) as described in *Charak chititsa*.<sup>[2]</sup>

*Deevaswapan* (Sleeping during day), *Avayayam* (lack of exercise), *Aalsya* (laziness) as described in *Sushruta nidaan satha*.<sup>[3]</sup>

### Sign and Symptoms

1. Polyuria- *Prabhuta Mutrata*
2. Polydipsia-*Trishnaadhikyata*
3. Polyphagia-*ksudhaadhikyata*
4. Weakness- *Daurbalya*
5. Turbidity in urine- *Avil Mutrata*
6. Numbness- *Kara-pada daha suptata*<sup>[4]</sup>

### CLASSIFICATION

#### 1. Classification according to causes of diabetes

- a) *Sahaja Prameha*, which is genetically transmitted disorder.
- b) *Apathyannimitaja Prameha*, which arises as a result of improper diet and life styles.

#### 2. Classification as per body type

- a) *Sthoola* (obese).
- b) *Krusha* (emaciated and weak).<sup>[5]</sup>

#### 3. Classification as per Dosha Predominance

- a) *Kaphaja Prameha* (10 types).
- b) *Pittaja Prameha* (6 types).
- c) *Vataja Prameha* (4 types), according to the characteri volume, *Dhatu* being excreted through urine.

#### 4. Classification of Diabetes mellitus

- a) Type 1 Diabetes (Beta cell destruction, usually leading to absolute insulin deficiency).
- b) Type 2 Diabetes (characterized by variable degrees of insulin resistance, impaired insulin secretion and increased glucose production).

### SAMPRAPTI

The different types of *Samprapti* which are mentioned by various Acharyas are being described below:-

**1. Due to Shuddha Vata:** Due to *Vatakara Nidana*, *Vata Dosha* provoked leading to *Kshaya* of other two *Doshas* and *Sarabhoota dhatus* like *Vasa*, *Majja*, *Lasika* and *Oja*. Due to *Kshaya* of *Dhatu*, *Vata* further gets provoked. This highly provoked *Vata* draws *Oja* towards *Basti* and leads to *Madhumeha*. This is *Asadhya* to treat due to its *Arambhaka Dosha Vata* and resultant further provocation due to *Dhatu Kshaya*.<sup>[6]</sup>

**2. Dhatu Kshaya Janya Madhumeha Samprapti:** The *Kshaya* of *Gambhira* and *Sarabhuta Dhatus* like *Majja*, *Vasa*, *Oja* and *Lasika* leads to *Vata Prakopa*. *Vata Dosha* gets vitiated leading to *Ksharana* of *Sarabhuta Dhatus* through *Mutra Pravriti* in such a quantity that this *Ksharana* of *Sarabhuta Dhatus* itself acts as etiological factor again for *Vata Prakopa*, hence this vicious circle goes on. But due to *Ashukaritva* of *Vata* all the stages of *Samprapti* proceeds so fast that, it leads to *Asadhya* stage of the disease very quickly.<sup>[7]</sup>

### Sadhya Asadhya

Ten types of *Kaphaja prameha*, six types of *pittaja prameha* and four types of *vatika prameha* are curable, maintainable and incurable due to similarity of management, dissimilarity of the same and severity of complications respectively.

### Some important lifestyle modification points

1. Get-up early in morning (*Brahama Muhurta Jagrana*)
2. Brisk Walking (*Chakramana*)
3. Light Massage (*Abyanga*)
4. Light Exercise or *yoga* (*Asana and Pranayam*)
5. After lunch walking for 15 minutes.
6. After dinner slow walking for 15 minutes.
7. Sleep only 6-7 Hr during night time.
8. Avoid sleep in day time.
9. Avoid excess intake of sweet, meat, chocolate, milk products.
10. Avoid *Urada*, fried items, fast foods, pickles, fermented items.
11. Avoid cold drinks, alcohol substance.

### YOGA

Yoga provides an appropriate lifestyle intervention that would be greatly helpful in regeneration of beta cells of pancreas may be taking place, which may increase utilization and metabolism of glucose in peripheral tissues, liver and adipose tissue through enzymatic processes. Improved blood supply to the muscles and muscular relaxation along with its development enhances insulin receptor expression causing increased glucose uptake and thus reducing blood sugar. Various type of Yoga Asana performed as a preventive therapy are *Suryanamaskar*<sup>[9]</sup> (increase blood supply and improving insulin administration), *Mandukasan*<sup>[10]</sup> (stimulate pancreas to secrete insulin), *Dhanurasana*<sup>[11]</sup> (improves functioning of pancreas and intestines), *Sarvangasana*<sup>[12]</sup> (improves blood circulation), *Halasana*<sup>[13]</sup> (stimulates pancreas and activate immune system).

*Aradhamatsya Asan*<sup>[14]</sup> Half spinal twist posture (Most useful Asana in Diabetes).

*Pranayam* reduce the over activity of central and autonomic nervous system. Internal organs and Endocrine glands are stretched and undergo strain due to Yogic Asana that increase the blood and oxygen supply in whole body, thus increases the efficiency and functioning of the affected parts and endocrine system of body.

#### Kapalbhati

*Anulom vilom*

*Bhastrika* and

*Ujjayi Pranayam* are the best options for diabetic because it is believed that these pranayam practices reduces stress hormone like adrenaline and cortisol which in turn lowers blood glucose level. *Ujjayi pranayam* also activate the thyroid gland which stimulate

the nerve impulsion and the activity of the Pancreas that regulate the mechanism of whole body which is beneficial in the treatment of *Madhumeha*.

In a study conducted to assess the effect of Kapalbhathi i.e. rapid performance of two selected yogic breathing techniques Rechaka (exhalation) and Puraka (inhalation) like emptying and filling of the bellows of a blacksmith, on heart rate variability, in 12 male volunteers (age 21 to 33 years) it was noted that Kapalbhathi modifies the autonomic status by increasing sympathetic activity with reduced vagal activity.<sup>[15]</sup>

## DISCUSSION

The holistic module of management of *Madhumeha* is based on genetic personality (*Prakriti*), imbalance state of *dosha* (*Vikarti*) and status of *dushya*, *srotas*, *agni*, *aama* etc. Avoiding of etiological factors (*Nidan Parivarjana*) through change in Life style And by practice of Yoga we can prevent and manage the *Madhumeha*.

## CONCLUSION

Ayurvedic guidelines of lifestyle for adopting a healthy dietary pattern along with physical activity that are valuable tools in the prevention of D.M. Though yoga and lifestyle intervention may counter the complex pathology of NIDDM and it only ensures good glycaemic control but also help in delay of diabetic complications.

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