



**A REVIEW ON THE EFFECT OF DIET AND PANCHKARMA IN
MANAGEMENT OF MADHUMEHA W.S.R TO DIABETES MELLITUS**

¹Pooja,

²Shikha Sharma

¹M.D. scholar, Department of Panchkarma, R.G.G.P.G. Ayu. College and Hospital, Paprola

²M.D. Panchkarma, A.M.O. R.G.G.P.G. Ayu. College and Hospital, Paprola

ABSTRACT

Madhumeha is one of the four types of *Vatika Prameha*. The etiological factors behind *Madhumeha* is intake of food substances having *Guru*, *Snigdha* qualities and excessive indulgence of *Amla* and *Lavan Rasa* substances, excessive sleep, sitting in a same place for longer duration, avoiding exercises and excess thinking or depression. *Madhumeha* is correlated with diabetes mellitus. Diabetes mellitus is becoming fastest considerable disease in the world. Based on current trend, it is believed that 438 million individuals will have Diabetes by the year 2030. Modern system of medicine is not successful in preventing and managing life style disorders. In the *Ayurvedic* principles, the appropriate answer to inhibit the lifestyle disorders like *Madhmeha* is *Ahara*. As *Ayurveda* consider *Nidana Parivarjana* is the main line of treatment and even applicable in case of *Madhumeha*. *Ahara* is said to be “*Mahabhaisajya*” by *Kashyap Acharya*. *Ayurvedic* approach towards the treatment of *Madhumeha* includes internal administration of drugs and life style modifications. *Panchkarma* procedures like *Vamana*, *Virechana*, *Basti*, *Takradhara* can bring down blood sugar levels with negligible side effects. In short purification of the body and life style modifications can alter the imbalance of body and mind, thereby total imbalance of humors can be corrected is the concept of *Ayurvedic Panchkarma*. Therefore an attempt has been made to highlight the role of Diet and *Panchkarma* in the prevention and management of *Madhumeha* described in the classics of *Ayurveda*.

Keywords: *Madhumeha*, Diabetes mellitus, *Ahara*, Lifestyle, *Ayurveda*

INTRODUCTION

Life style disorders are diseases which are associated mainly with the way a person or group of people lives. Diabetes mellitus is a life style disorder and it is becoming fastest considerable disease in the world. It is estimated that total number of people with Diabetes will rise to 366 million by 2030. It is going to take the form of epidemic in the coming century, if proper preventive measures are not taken. Approximately 1% of population is suffering from Diabetes mellitus. In developed countries it is rising at the rate of about 10% every year. International Diabetes Federation on 14th November on world Diabetes day review that nearly 46%

of 415 million adults living with Diabetes are unaware of their condition. Epidemiological studies showed that type2 diabetes is associated with over eating, especially when combined with obesity and under activity¹. Modern system of medicine is successful in preventing and managing infectious diseases, but it is difficult to prevent life style disorders alone with it. It is the need of time to review the ancient systems of medicine in order to apply the principles mentioned in ancient systems to prevent and manage the life style disorders. Diabetes mellitus is attracting global importance. It is prevalent and known since ancient period. According to *Ayurveda* DM can be

correlated to *Madhumeha* which is a subtype of *Prameha*. *Prameha* is *Tridoshaj (Vata, Pitta & Kapha) Vyadhi* with predominant *Kapha*². *Madhumeha* is a type of *Vataj Prameha* which is characterized by passing of sweet taste honey like urine in excess amount³⁻⁴.

Ahara plays an important role in healthy and in diseased persons. So consumption of food by following proper *Pathya* and *Apathya* is beneficial in preventing the diseases like Diabetes. *Pathya* can be ultimately understood as the food which suits any condition of the body. It may be in form of *Satmya, Hita, Upashaya* that ultimately provides health to the individual. To have a healthy life, one should have the awareness regarding proper diet, its dose, time, place the food having all those qualities which becomes *Hita* to the mind, body through *Srotas* and thus produces health⁵. *Ayurvedic* texts also describe preventive measures like *Dincharya, Ritucharya, Ratricharya,*

Vegavidharna in order to prevent the life style disorders.

Ayurvedic texts describe *Shodhana* and *Shaman* therapy for the management of *Madhumeha*. *Shodhan* includes *Vamana, Virechana* and *Basti karma*. These *Panchkarma* procedures act by removing toxins from the body and relieving stress. These procedures bring down the blood sugar levels with no side effects. The use of herbal medicines after Bio purification of body is more effective. These *Panchkarma* Procedures are also useful in complications of DM.

MATERIAL AND METHODS

It is a review article. For the present review detailed literary study performed. The etiological factors of *Madhumeha*, causative factors, signs and symptoms and treatment described in *Ayurvedic* texts briefly reviewed. Some other *Ayurvedic* texts and research articles were also analyzed and studied.

Table1: SPECIFIC ETIOLOGY OF MADHUMEHA⁶

AHARA	VIHARA
Excessive intake of	Excessive indulgence in
<i>Nava Anna, Nava Pana</i> (freshly grown grains, fresh beverages)	<i>Nidra</i> (Sleep)
<i>Guru Dravya</i> (milk products, curd etc)	<i>Asya Sukha</i> (Sedentary habits)
<i>Snigdha Dravya</i>	<i>Vyayama Varjana</i> (no exercise)
<i>Madhur Dravya</i>	<i>Tyakta Chinta</i>
<i>Amla & Lavan Dravyas</i>	<i>Samshodhana akurvatom</i> (avoiding purification therapy)

Two factors are generally responsible for occurrence of *Prameha*- Hereditary and Dietary factors. According to these causative factors patients can be classified as *Sahaj Pramehi* and *Apthyanimittaja Pramehi*.

Sahaj Prameh/Madhumeha: *Prameha* is described as a *Kulaja vikara*. It can be inherited to the next generation. The faulty dietary habits and life style of mother during pregnancy can cause *Madhumeha*

in child. *Chakrapani* also told that the chief cause of defect in *Bija* (spermatozoa or ovum) is *Apathya Sevana* (improper dietary habits) by the parents.

Apthyanimittaja Prameh /Madhumeha: Sedantary life style, excessive sleep, faulty dietary habits, and lack of exercise these causative factors lead to the vitiation of *Doshas* and give rise to *Prameha*.

CLASSIFICATION OF PRAMEHA

1 *Prameha* is classified aetiologically into *Sahaj* (Hereditary) and *Apathyanimitaja* (Unwholesome things –food and exercise etc.)⁷

2 According to physical management⁸ *Aptarpana Uthaja Prameha* - describing the lean diabetic.

Santarpana Uthaja Prameha- related with the obese diabetic.

3 According to *Dosha- Pramehas* are classified into twenty types⁹

Vataj Prameha – There are totally 4 *Vataj Prameha*. *Madhumeha* is a type of this.

Pittaj Prameha –There are totally 6 *Pittaj Prameha*.

Kaphaj Pramehas – There are totally 10 *Kaphaj Prameha*.

ROLE OF AHAR (DIET) IN MADHUMEHA

Table 2: The description of Pathya Ahara for Madhumeha¹⁰

Ahara Varga	Dravya	Properties of Dravyas
<i>Dhanya varga</i> (cereals and millets)	<i>Yava, Godhuma, Shastika shali</i> , barley are best can be given in form of <i>Mantha, Odana, Roti</i> etc.	It is having <i>Kashaya</i> and <i>Madhura rasa, Katu Vipaka, Mrudu, Rooksha, Lekhana Guna, Medonashaka</i>
<i>Shakavarga</i> (vegetables)	<i>Karela</i> (Bitter guard), <i>Methi, Kushmanda, Rasona, Udumbara, Palandu</i>	<i>Tiktarasa, Laghu, Ruksha, Ushna Virya, Katu Vipaka</i>
<i>Phala varga</i> (fruits)	<i>Jambu, Amalaki, Utpala, Kapittha, Kalinga</i>	<i>Kashaya Madhura Amla Rasa, Laghu Ruksha Guna, Sheeta Virya, Madhura Vipaka</i>
<i>Taila varga</i> (oils)	<i>Sarshapa Taila, Danti Taila, Ingudi Taila, Alsi Taila</i>	<i>Madhura, Natyushna, Guru, Tikсна</i>

Approximately 50% of the new cases of diabetes can be controlled by diet alone. The plate of diabetic patient should be as follow-

- ½ of plate should be filled with non starchy vegetables like cucumber, broccoli, carrots, salad, tomatoes or cauliflower.
- ¼ of plate should be filled with whole grains or starchy food such as *chapatti* of barley, corn or pea.
- ¼ of plate should be proteins like fish, lentils and poultry.
- Whole grains with low glycemic index like barley flour, red or brown rice should be taken.
- Rather than taking three large meals, try eating small meals frequently, i.e. 3 regular, average- sized meals should also

be complemented with 3 light snacks in between.

Role of Panchkarma in Madhumeha

Panchkarma is *Ayurveda*'s primary purification and detoxification treatment. The unique feature of *Panchkarma* therapy is to destroy the disease from the root level which is beautifully quoted by *Acharya Charak* as follows-if the plant is destroyed except root, then it grows again, in the same way if bio-humors are not destroyed from the root, they again cause diseases¹¹. Bio-purification therapy acts on the root sites of humors and remove them from the body, so that there is no further nutrition to the other sites of bio-humor leading to a healthy condition. The *Ayurvedic* classics categorically emphasized that Bio-purification of both body and mind is

essential pre-requisite for administration of *Shaman* therapy, also *Rasayan* therapy. Bio-purification is essential to obtain effects of rejuvenation and aphrodisiac action of drug¹². In *Madhumeha* also, if the *Shaman* drug will be given after *Shodhana* then it will be more effective. *Ayurveda Panchkarma* procedures like *Vaman*, *Virechana* and *Basti* are mentioned in treatment of Diabetes mellitus.

Role of *Shodhana* As Preventive Measure in *Madhumeha*

Ritu Samshodhana (Cleansing according to seasons) i.e. *Vaman* in *Vasanta*, *Virechana* in *Sharat* & *Basti* in *Varsha* *Ritu* acts as preventive. As in *Charaka Samhita* it is mentioned that “*Samshodhanam-akurvatom*” (not performing seasonal cleansing) is the prime factor for manifestation of *Madhumeha*. By conducting *Ritu Samshodhana* the *Dosha* vitiation can be controlled.

Table 3: Panchkarma procedures

<i>Panch karma</i>	Procedure	Materials	Probable mode of action
PURVA KARMA	<i>Udvartan</i>	<i>Udvartan</i> can be done with <i>Haritaki</i> , <i>Trifala</i> , <i>Yava</i> , <i>Madhuyashti</i> , <i>Vacha</i> , <i>Kulathi</i> , <i>Masha</i> .	In <i>Udvartan</i> , <i>Ruksha dravyas</i> are applied in opposite sequence. Due to mechanical effect, the dirty particles over hair follicles are removed. Therefore cleansing of minute channels occurs. On the other hand pressure is also transmitted to deeper tissues which enhance venous circulation and lymphatic drainage.
	<i>Snehana</i> (Internal & External)	Internal <i>Snehana</i> can be done with <i>Trifala ghrita</i> , <i>Panchtikta ghrita</i> , <i>Nimba ghrita</i> etc. External <i>Abhyanga</i> can be done with <i>Sarshap tail</i> , <i>Atsi taila</i> , <i>Til taila</i> etc.	<i>Shodhana Snehapana</i> liquefies the <i>Dosha-dushya samurchhana</i> may dissolve fat soluble amyloid deposition leading to proliferation of insulin secretory cells. <i>Abhyanga</i> is useful in relaxing muscles, which provides a sense of well-being. This helps to improve circulation which further causes increased glucose absorption and the amount of insulin required for impaired glucose levels also decreased.
	<i>Svedana</i>	Medicated herbal steam (<i>Dashmoola Kwatha</i>)	<i>Sveda</i> or medicated herbal steam bath opens the pores, flushes and cleanses the system through skin and toxins are excreted through sweat.
PRADHAN KARMA	<i>Vaman</i>	Medicinal paste made up of <i>Madanphala</i> , <i>Vacha churna</i> , <i>Saindhav lavan</i> and honey or medicinal decoction is given to the patient.	<i>Vaman</i> & <i>Virechana</i> drugs are mild irritant to the stomach and the intestinal mucosa respectively, to cause inflammation. Due to this, the permeability of the membrane changes and some toxins come out due to the

	<i>Virechana</i>	For <i>Virechana Trifala Churna, Haritaki Churna</i> , Castor oil can be given to the patient.	changed permeability which cannot come out in normal condition. This also facilitates quick absorption of the active principles (<i>Veerya</i>) of the drug in initial stage.
	<i>Basti</i>	<i>Niruha Basti</i> has gained importance in treatment of Diabetes mellitus ¹³ . <i>Acharya</i> has mentioned <i>Panchtikta Panchprasritik Basti</i> ¹⁴ , <i>Madhutailka Basti, Somvalkadi Basti, Saindhavadi Niruha Basti</i> in <i>Prameh</i> .	<i>Basti</i> pacifies the vitiated <i>Vata doshas</i> by removing the related toxins and waste materials from the system. <i>Shodhana dravyas</i> of <i>Basti</i> have cleansing effect reduces <i>Avarana</i> of <i>Kapha</i> and <i>Meda</i> .
PASCH AT KARMA	Diet Schedule as mentioned in <i>Ayurvedic</i> texts	During this process a person is advised to maintain a strict diet, avoiding things that are harmful (<i>Ashtmahadoshkar bhava</i> i.e <i>Pariharya vishya</i>)	

DISCUSSION

Diabetes is a major public health problem that is approaching epidemic proportions globally. There is an urgent need for strategies to lower the raising prevalence of this disease. Minor changes in our eating habits and lifestyle changes can greatly reduce our chances of getting this disease¹⁵. In Diabetes Mellitus *Panchkarma* act as preventive as well as curative therapy, Timely intervention of the *Panchkarma* therapy with appropriate medicaments helps in the management and prevention of Diabetes mellitus.

Role of balanced diet:

High consumption of vegetables, fruits, legumes, nuts, fish, cereals leads to high ratio of mono unsaturated fatty acid to saturated fatty acids and they act beneficially against type-2 diabetes mellitus, by reducing oxidative stress and resistance also prevent weight gain and exert a protective effect on development of type2 diabetes.

Process of Vaman, Virechana & Aasthapana Basti:

- Due to *Ushna, Tikshna, Sukshma, Vyavayi, Vikasi & Anupravana bhava* all the toxic materials get excreted through GIT (either in the upward or in the downward direction)¹⁶.
- *Srotoshodhana, Agnivardhana, Kostha Shodhana*- Activate *Medodhatvagni* (Activate glucose & fat metabolism)
- Lack of *Meda sanchaya* (prevent Lipolysis & activate fat metabolism)
- *Vata avarana* will be removed (insulin resistance will be reduced)
- Reduces the stress on beta cells.
- Hence insulin deficiency will be corrected (leading to proper absorption as well as utilization of glucose)¹⁷

CONCLUSION:

Madhumeha is very common ailment in this mechanical era. Diabetes being a disease of deranged metabolism, special attention should be kept on the condition of digestion and metabolism. *Ayurvedic* principles of management can help the

patient to have better blood sugar control and routine life inspite of modern management methods¹⁸. Along with diet *Samsodhana* therapy i.e. *Vaman*, *Virechana*, *Basti* has significant role in *Samprapti vighatan of Madhumeha*. By *Agni Vridhi & Srotosodhana* effect of *Samsodhana Karma* it activates the insulin secretion as well as reduces peripheral insulin resistance. Hence lifestyle modifications along with proper adopting food habits and *Panchkarma* procedures have very important role in the management of *Madhumeha* (Diabetes mellitus).

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Corresponding Author:

Dr.Pooja,M.D. scholar Department of Panchakarma R.G.G.P.G. Ayu. College and Hospital, Paprola

Email:mehtapooja561@gmail.com

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