



ROLE OF AYURVEDA DIETETICS IN THE MANAGEMENT OF MADHUMEHA (DIABETES MELLITUS): A REVIEW

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ABSTRACT

Madhumeha is disease known to the mankind as 'honey urine, sweet urine' since ancient times and maximum number of srotas (channels) are included in the manifestation of disease which is nearest clinical entity for diabetes mellitus. Diabetes Mellitus is a major non - communicable disease with increasing prevalence at global level. Diabetes Mellitus is characterized mainly by hyperglycemia due to absolute or relative deficiency of insulin. Food habits are the major cause of Diabetes Mellitus and emerged as a public health problem globally. Ayurveda has given prime importance for the protection of health of healthy individual which is possible by preventing disease by promoting health. Ayurveda has laid down all preventive principle under Swasthyarakshana in which pathya literally means a way or channel it also said that beneficial for patient which fasten the process of recovery from the diseased state. Ayurveda mention pathya as treatment. Hence ayurvedic dietetics (Pathyahara) is a fundamental intervention strategy for Diabetes Mellitus.

Keywords: Diabetes Mellitus, Ayurveda, Pathyahara, Madhumeha

INTRODUCTION

Madhumeha is one among the polyuric disease described under the prameha rogas which can be correlated with type 2 Diabetes mellitus. In charaka samhita, Madhumeha has been described as a type of vataja prameha which is characterised by passing of honey like urine in excess amount.¹ Diabetes mellitus is the most common, chronic endocrine disease having social, medical and economic result in globally.²

Prevalence of diabetes is difficult to determine because various standards, may no longer acceptable, have been used in diagnosis and as per recent reports of the international diabetes federation in 2017, approximately 425 millions adults (20-70 years) were living with diabetes; by 2045 this will rise to 629 million and the proportion of people with type 2- diabetes is increasing in most countries.³ At present, there are number of factors that influences the development of type 2 diabetes. These include consumption of unhealthy food and inactive lifestyle with sedentary behaviour.⁴

PUBLIC HEALTH ASPECTS OF DIABETES

The cost of diabetes to the community increasing, and recent estimates in the USA indicates that the rate of increase is escalating, now accounting for more than US \$100 billion per year.

Overall life expectancy in the diabetic patient is reduced by about 25%. The cause of death differs in type 1 and type 2 diabetes. In type 2 diabetes most deaths are due to cardiovascular disease, including stroke. Diabetes is rapidly growing problem in the developing world, especially in urban populations.⁵

PATHYA AS CHIKITSA

The main causative factor of madhumeha is due to apathyaahara(unwholesome food) and viharasevana(poor lifestyle) hence pathya ahara(wholesome food) and vihara(lifestyle) is the main treatment in the management of madhumeha.

The starting point and mainstay of treatment for type 2 diabetes are diet and other modification of lifestyle. Diet is important to reduce weight, to lower blood glucose concentration and increase insulin sensitivity, and to reduce cardiovascular risk factors such as abnormal lipid profile and hypertension. The dietary recommendations are essentially the same for type 2 diabetes and indeed follow a healthy eating pattern suitable for the entire population.⁶

IMPORTANCE OF PATHYA AHARA IN MADHUMEHA

Pathya ahara (Wholesome food) are equally important as treatment in Madhumeha as it is mainly caused due to apathyaahara and vihara sevana (Improper food and lifestyle). Pathaya ahara is a wholesome food which helps in control of blood sugar level as well as to prevent the complications of disease. It has been mentioned by lolimbaraja in medieval period of his text vaidya jeevanam that - "If a individual follows the dietary rules for particular disease there is very little significance of other interventions. If a individual follows apathy for same disease then other interventions has no value, because without pathyasevana taken drug can't cure the disease".⁷

Table 1: Different Ahara Dravyas for Madhumeha⁸⁻¹²

Varga	Pathya	Properties
Shuka Dhanya	Purana Shali, Yava (barley), Shashtika Shali(rice variety), Shyamaka(barnyard millet), Kodrava(kodo millet), Nivara(variety of rice)	- Shyamaka and kodrava are kashaya rasa, laghu, ruksha guna , ushna veerya and katu vipaka is kaphahara with lekana property. - Yava with kashaya rasa, laghu ruksha guna is shleshma vikarahanta
Shami Dhanya	Mudga (Green gram), Adaki (Pigeon pea), Chanaka (Chick pea)	- All are having kashaya rasa, laghu ruksha guna and kaphahara
Mamsa Varga	Aja Mamsa (Goat meat), Gramya Kukkuta Mamasa (Domestic)	- Aja mamasa is not much shita, guru, abhishandi
Shaka Varga	Tanduliyaka (Amaranthus), Shigru (Drun stick), Karavellaka (Bitter gourd), Patola (Pointed gourd), Garjara (Carrot), Koshataki (Ridge gourd), Kakamachi (Black night shade)	- Kapha hara, tiktarasa, laghu guna, ushna virya - Tanduliyaka – laghu and ruksha guna is kaphahara - Shigru - tikta- kashaya rasa, laghu ruksha guna and ushna veerya is kaphahara - Karavellaka- tikta rasa, laghu guna and katuvipaka indicated in prameha - Patola- Tikta rasa, laghu guna and ushna veerya and katu vipaka acts as kaphahara - Koshataki – laghu guna and indicated in prameha - Kakamachi – katu tikta rasa and ushna veerya
Phala Varga	Tinduka (Indian persimmon), Jambu (Gauva), Amalaki(Indiangooseberry), Kapitha (elephant apple), Dadima (Pomegranate), Pakva Mocha (Unripped banana)	- Tinduka – kashaya rasa and laghu guna indicated in prameha. - Jambu – kashaya rasa, ruksha guna acts as kaphagna - Amalaki – lavana varjita sarva rasa and laghu ruksha guna is kaphahara. - Kapitha due to kashaya rasa and laghu guna act as kaphahara. - Dadhima due to kashaya rasa, Laghu guna and ushnaveerya acts as kaphavirodhi and kaphapaha. - Pakva mocha – kashaya rasa indicated in prameha.
Madhya Varga	Puratana Sura (Old wine)	- Laghu , srotoshudhi(clarifies the channels) and digestsive
Jala Varga	Ushna Jala (Hot water), Shrita Sheeta Jala (Lukewarm water)	- Laghu , Dipana and kaphahara
Aharayogina Varga	Laja ,Maricha (Black pepper), Saindhava (Rock salt), Haridra (Turmeric), Ardraka (Ginger), Purana Madhu (Old honey) Purana Guda(Old jaggery), Takra (Buttermilk), Lashuna (Garlic), Jeeraka (Cumin), Ajamoda (Celery seeds), Trikatu (combination of black pepper, long pepper and ginger)	- All are kapha vata nashaka ahara drava with dipana, laghu guna

Table 2: Different Pathya Kalpana for Madhumeha¹³⁻¹⁵

PATHYA KALPANA	METHOD OF PREPARATION
1) Mudga yusha (Green gram soup)	Kapha hara, Dipana
2) Kulatha yusha (Horse gram soup)	Kaphahara, Dipana, Laghu
3) Masoora yusha (Red lentil soup)	Pramehahara, Grahi, Dhatuvardhaka
4) Shyamaka anna (barnyard preparation)	Laghu, Dipana, Ruksha, Pramehahara
5) Yava rottika (barley chapatti)	Kaphaamaya hara, Balya, Laghu

DIETIC MEAL PLAN FOR DIABETIC

The primary focus in diabetes care is glucose control were three main principles of nutritive therapy is applied – Total energy balance, nutrient balance and food distribution balance.¹⁶ Hence food distribution must be planned especially by person using insulin, and adjusted according to each days scheduled activities and blood glucose monitoring to prevent the episodes of hypoglycaemia from insulin reactions.¹⁷ Careful distribution of food and snacks is especially important for children and adolescents with diabetes to balance with insulin during growth and changing hormone pattern of the puberty.

DISCUSSION

Madhumeha can be correlated to with type 2 diabetes mellitus that can be treated with pathya ahara and vihara (wholesome food habits and lifestyle) sevana along with other chikitsa as the main causative factor of madhumeha is apathyahara and vihara sevana. Pathya ahara acts in all aspects of healthy life by promotive, preventive and curative which helps in dheergajeevanam (increases lifespan), sukhayu (happy and healthy life) and

hitayu(good and productive life) though it is a yapyva vyadhi(manageable disease) and also helps in preventing the further complications. Pathya ahara is food as well as medicine for madhumeha person by its different rasa, guna, veerya and vipaka which helps in alleviation of dosha and dhatu.

The main objective for the management of madhumeha is to normalise blood glucose values, to activate normal body weight and to prevent postponed complications associated with diabetes. The importance of pathya in the management of madhumeha varies with types of disease. In insulin dependent patients particularly those on intensive insulin regimens, the composition of diet is root of critical importance, since adjustments of insulin can cover wide variation in food ingestion. In non-insulin dependent patients not treated with exogenous insulin, more rigorous abundance of fixed diet is required, since endogenous insulin reserves limited.

CONCLUSION

Ayurveda classics has elaborately mention about the proper food and lifestyle to be followed in all diseased condition. As irregular

food habits plays an important role in the development of type 2 diabetes mellitus. Along with the drug intervention an equal importance to be given to promote healthier food habits especially for high risk individuals. Though diabetes is difficult to cure but proper food habits helps in preventing the onset and complication.

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