



ORIGINAL RESEARCH PAPER

Ayurveda

AYURVEDIC ASPECT OF DIABETES MELLITUS MANAGEMENT THROUGH NIDANA PARIVARJANA, AHARA, VIHARA, YOGA AND AUSHADHI.

KEY WORDS: diabetes mellitus, Ayurveda, madhumeha, sedentary lifestyle.

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ABSTRACT

Ayurveda states the concepts of Dinacharya, Ritucharya, Sadvritta, and Achara Rasayana and importance of healthy diet and lifestyle. But in current era, due to busy lifestyles all this is not followed. As a result, there is tremendous rise in lifestyle disorders, Diabetes being one among them. Ancient Acharyas of Ayurveda has given importance to 'Prameha' & it has been categorised among 'ASTAMAHAGADA'. The main causes of Madhumeha are sedentary lifestyle, lack of exercise, improper food habits. Acharya Charak also mentioned same psychological character like excitement, anxiety, anger, worry, grief, etc. In present era psychological symptoms like stress and strain are major causes of diabetes mellitus. So Ayurvedic lifestyle guidelines of adopting a healthy dietary pattern together with physical activity are valuable tools in the prevention of Madhumeha.

INTRODUCTION

Ayurveda focuses on maintaining positive health and eradicating the illness in a diseased through holistic approach, lifestyle changes, diet and safer medications. Ayurveda is the oldest science having unique and original concept and principles. The basic concept about a healthy person is to maintain the equilibrium of Sharirk (vata, pitta kapha) doshas and Mansika Dosha(satva, raja, tama). These all are regulated by Dosha, Dhatu, Agni, Mala, ahara and Vihara. In present era there are lots of diseases emerging due to irregularities in Ahara /Vihara.

Nowadays, sedentary lifestyle and stresfull mental conditions have called for many diseases, diabetes mellitus being one among them. In Ayurveda, Madhumeha which is a type of Vataja Prameha is compared to Diabetes Mellitus as it has similar etiopathogenesis, clinical features and prognosis.

Madhumeha is attracting a global importance, it is also known as a 'Silent Killer'.

There is a need to know the graveness of the disease and to understand the possible ways to prevent this disorder. Diabetes is associated with increasing urbanization, unhealthy lifestyle, reduced physical activity, obesity, behavioural patterns. Ayurvedic Pathya- Ahara and Vihara can play a major role in prevention of diabetes mellitus.

Nidana (etiology):

Diet related Etiologies:

Madhura, lavana rasa pradhan ahara, Payamsi (Use of milk and milk preparation), Dadheni (excessive use of curd), Gramya-oudakaanupamamsa (flesh of animals of domestic aquatic and marshy places), Navaannapana (new grains), Guda-vaikruti (jaggery and its derivatives), Ikshurasa (sugar cane), Madhurahara (sweet substances), Pishtaahara (carbohydrate rich food), Adhyashana (repeated food intake), Ahitashana (unwholesome diet). Other causes mentioned in Charak and Ashtang Hrudaya include, food and drinks which increases the Meda and Mutra. and diet which are sweet, sour, salty, fatty not easily digestible slimy.

Lifestyle related Etiologies:

Asayasukham (habit on sitting on soft cushions for long period of time) and Swapana-sukham (prolonged sleeping), Alasya (sedentary life), Kaphakrut cha sarvam (all foods and lifestyle activities which increases Kapha), Ati atapa, Atisantapa, Shrama, Krodha. Other causes include Sahaja (inherited factor), Bhaya (fear), Deergha Roga (long standing illness).

Poorvarupa (Premonitory symptoms):

Feeling of burning in palm and sole, heaviness in the body, urine is sweet, bad odour and white in colour, stupor, debility, excessive thirst, dyspnea, accumulation of dirt in palate, throat, tongue and teeth, hears on head adhering to one another and excess growth of hair and nails.

Lakshanas (symptoms):

Passing turbid and/ or profuse urine, urine becomes like honey. Shushrutacharya also says that sahaja rogi are usually krusha and apatarpanothaja are usually sthoola.

Sadhyaasadyata (prognosis):

Sadhya: patients who have been diagnosed very early in onset of disease, those who are sthoola and the disease origin is apathyaja.

Yapya: pittaja pramehi and some types of kaphaja pramehi.

Asadhya: sahaja hetu related patients.

Management:

Diabetes can be controlled by paying attention to the following aspects:

1. Nidana parivarjana
2. Ahara (Diet)
3. Vihara (Exercise)
4. Aushadha (Medicine)

Ahara and vihara play an equally or even more important role than drugs in order to control blood sugar level as well as to prevent complication of diabetes mellitus.

According to Ayurveda, a healthy person is one who has the equilibrium of Tridosha (Vata, Pitta, Kapha). Dietetic factors, lifestyle as well as environmental factors affect the Tridoshas and results in diseases

1. **Nidana parivarjana:** First guideline is to avoid the diet and lifestyle related etiological factors mentioned above.
2. **Ahara:** Ayurveda has given utmost importance for the maintenance of Pathya Ahara. Ahara management is highly effective in early onset of diseases and in case of Kapha Dosha predominant non insulin dependent diabetes mellitus. The recommended diet for Madhumeha patients is as follows.

Cereals	Yava (Hordeum vulgare-barley) in different forms Asmantha, Odana, Appopa etc., shalishashtika, Godhuma (wheat), Shyamaka, Kodrava, Bajra
Pulses	Chanaka (Cicer arietinum), Adhaki (Cajanus cajan), Mudga (Green gram), Kulattha (Dolichos biflorus)
Vegetables	Karela (Momordica charantia), Methika (Trigonella foenum), Patola (Vietnamese luffa), Rasana (Allium sativum), Udumbara (Ficus racemosa), Nimba (Azadirachta indica) Thiktha shakas, Tanduleyaka (Amaranthus spinosus), shobhanjana (Moringa olifera)
Fruits	Jambu (Syzygium cumini), Talaphala (Borassus flabellifer), Kapitha (Feronia elephantum), Dadima (Punica granatum), Amlaki (Emblica officinalis), Kharjura (Phoenix sylvestris), Bilwas (Aegle marmelos), Tinduka (Disospyros embroyopetesis)
Seeds	Kamala (Nelumbo nucifera), Utpala (Nymphaea stellata)
Flesh	Harina (Deer flesh), Shashaka (rabbit flesh), birds like Kapota, Titira, Lavaka. meat of animals and eggs of birds of deserts like regions (Jangala mamsa)
Oil	Nikumba (Baliospermum montanum), Atasi, Sarshapa (Mustard), Ingudi (Balanites aegyptiaca).
Liquor	old sura (old wine), Madhveka sura, Madhvasava
Others food articles	Laja, Maricha, Hingu, Saindhava, Haridra, Ardraka, Madhu

Simple carbohydrates are broken down easily and increases blood glucose levels fast. Hence, simple sugars like table sugar, honey, candy, jam, cakes, and pastries etc. are contraindicated, while complex carbohydrates like cereals, whole grains and vegetables are recommended at least to 50% of diabetic food. Vegetable and fruit fibers reduce the risk of diabetes, delay sugar digestion and absorption, improve the insulin sensitivity and glucose utilization and relieve constipation.

The indigenous diet may not be helpful in lowering the blood sugar levels same as the insulin and OHA but can be useful as a adjunct to manage the disease and its complications and thus improving the quality of life.

3. Vihara:

Etiology of madhumeha includes lack of exercise (Asyasukham) and excessive sleep during day and night (Swapanasukham). These factors cause obesity, which leads to insulin resistance. So, exercise is very important aspect in the management of Diabetes mellitus.

In Ayurveda, Vyayama is included in dinacharya. Exercise renders Laghava, Karma Samarthya, Deeptagni, Meda Kshaya, Vibhakta Gatra, Ghana Gatra.

Sthula Pramehi are advised to do exercises like wrestling, horse riding, vigorous walking etc.

Krusha Pramehi are advised to protect their strength and not to do exercise.

Some of the productive exercises are Vyayama, Niyuddha (fighting), Kreedha (games), Gajacharya (ride on elephant), Turagacharya (ride on horse), Rathacharya (cart riding), Padacharya (walking).

Exercise:

According to finding in DPP (Diabetes Prevention Programme and De-Quing Study, a daily brisk walk of 7.5 km (brisk is walking with speed of 5km/hr) for 100 days can reverse GTT to normal. Moderate exercise such as brisk walking reduces risk of type 2 diabetes., jogging, bicycling, swimming, playing tennis and badminton.

Exercise improves the insulin sensitivity and glucose absorption, transport and uptake are in perfused skeletal muscle, which reduces the insulin requirement. It also increases the blood flow through distal muscle increasing oxygenation to tissues in the feet and hands, thereby decreasing the chances of tissue ischemia and neuropathy and increases capillary blood flow.

4. Yoga:

Yoga improves metabolism in the body. Yoga provides an appropriate lifestyle intervention. 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.

Common Asana that can be very effective in Diabetes are Padmasana, Shalabhasana, Mayurasana, Suryanamaskar, Dhanurasana, Mandukasana, Sarvangasana, Halasana, Tadasana, Gomukhasana, Ardhamatsendrasana, Pashchimotanasana. Pranayama such as Kapalabhati, Anulom-Viloma are helpful to reduce the stress hormones like adrenaline and cortisol and lower blood glucose levels.

5. Aushadhi:

Herbal medications used in Madhumeha:	Musta (Cyperus rotundus), Daruharidra (Berberis aristata), Arjuna (Terminalia arjuna), Khadir (Acacia catechu), Lodhra (Symplocos racemosa), Guduchi (Tinospora cordifolia), Patol (Trichosanthes dioica), Vata (Ficus bengalensis), Udumbar (Ficus glomerata), Gudmar (Gymnema sylvestre), Asana (Pterocarpus marsupium), Shilajit (Purified Bitumen), Kumbha (Leucas cephalotes), Nimba (Azadirachta indica).										
Preparation used in Madhumeha:	<table> <tr> <td>Ghrita & Taila</td><td>Trikantakadya Sneha, Dadimadhya Ghrita, Shalmali Ghrita, Dhanvantari Ghrita, Triphala Ghrita.</td></tr> <tr> <td>Asava-Arista</td><td>Lodhra Asava or Madhva Asava, Datya Asava, Devdarvadi Arista.</td></tr> <tr> <td>Leha (Paste)-</td><td>Salsaradi leha, Kusha Avleha, Vanga Avleha</td></tr> <tr> <td>Udaka</td><td>Sarodaka, Kushodaka, Madhukodaka, Sidhu Madhvika.</td></tr> <tr> <td>Vati (Tablet)-</td><td>Trikantakadya Modaka, Shiva Gutika, Shilajitvadi Vati, Chandraprabha Vati, Aarogyavardhini Vati.</td></tr> </table>	Ghrita & Taila	Trikantakadya Sneha, Dadimadhya Ghrita, Shalmali Ghrita, Dhanvantari Ghrita, Triphala Ghrita.	Asava-Arista	Lodhra Asava or Madhva Asava, Datya Asava, Devdarvadi Arista.	Leha (Paste)-	Salsaradi leha, Kusha Avleha, Vanga Avleha	Udaka	Sarodaka, Kushodaka, Madhukodaka, Sidhu Madhvika.	Vati (Tablet)-	Trikantakadya Modaka, Shiva Gutika, Shilajitvadi Vati, Chandraprabha Vati, Aarogyavardhini Vati.
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Churna (powders)	Nyagrodadi Churna, Eladi Churna, Karkatbijadi Churna, Triphala Churna.
Rasa/ Bhasam-	Vasantakusumakar Rasa, Suvarna vanga
Kwatha (Decoction)-	Phala trikadi Kwath, Darvyadi Kwath, Vidangadi Kwath, Triphaladi Kwath

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Treatments: Ruksha Udavartana, Avagaha and Parisheka, Snana along with the application of ointment made of Aguru, Chandan, Usheer, Ela etc.

Krusha (asthenic) patients- increasing stamina and vitality by Brumhana diet, drugs etc.

Sthoola (obese) patients- Shodhana (Vamana, Virechana, Basti), Apatarpana by diet control, Vyayama etc.

1. Snehana
2. Shodhana (Purification therapy)
 - a. Virechana
 - b. Basti (Asthapana/ Niruha) –Basti should be given in appropriate conditions

Though it is contraindicated in treatment of Prameha because it again aggravate the disease, but some special Basti are indicated for Prameha in different situations.

Asthapana Basti:- Kashaya of Sursadi gana is indicated.

Panchatikta Basti- Basti prepared with the Kwatha of Patola, Nimba, Bhunimba, Rasna and Santarpana, Vit-Khadir Basti- Basti prepared with the Kwath of Somvalk (Vit-Khadir) is indicated for Prameha.

Anuvasana Basti-

It is contraindicated in Prameha, it causes excitation of Doshas leading to the manifestation of Udara Roga.

CONCLUSION:

Diabetes mellitus is a metabolic disease of multiple etiologies, it is a silent killer. Present era has a huge influence on developing this disease. Unhealthy food habits, sedentary lifestyle and stress play an important role in it; also diabetics face many complications due to this. So there is a need of solution to lower the raising prevalence of the disease. It can be prevented if intervention is done in early stages of disease in the form of Pathya Ahara and vihara. Life style modification with proper food habits, yoga & exercise, which play a very important role in the management of diabetes mellitus.

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