PREVENTION AND CONTROL OF MADHUMEHA THROUGH DIET AND LIFESTYLE

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ABSTRACT

Majority of many chronic diseases relevant today are now being claimed as lifestyle disease. Ayurveda has a potential to preventing lifestyle disorders. Diabetes is a major health problem for the world in the 21st century. Acharya Charaka has classified according to body constitution, Sthula or Balawan rogi and Durbal or Krisha Rogi of Madhumeha. For Sthula or obese patients diet should be prescribe which is Apatarpana and Krisha or lean and thin Acharya Sushruta has classified two type of Madhumeha-Sahaja meha rogi (juvenile diabetes mellitus, generally remain Krisha) and Apathya-nimittaja-rogi (acquired or dietetic reason diabetes remain Sthula). This classification of the disease is important from the management point of view and treatment principle of madhumeha includes palliative care, rejuvenation therapy, dietary interventions and lifestyle modification. Ayurvedic acharaya have widely described the role of diet and activities to control madhumeha along with medications. The Ahara Vyavastha, Dincharya and Rutucharya are important in the prevention of Madhumeha. The Yogasanas and physical exercise also may be helpful in the prevention of the Madhumeha. Specific diet and lifestyle is mentioned that will be discussed in broadly.

KEYWORDS: Madhumeha, Diabetes, Ahara. Vihar, Lifestyle Effect.

INTRODUCTION

Diabetes Mellitus is a metabolic disorder of multiple etiology, characterized by chronic hyperglycemia with disturbance of carbohydrate, fat and protein metabolism resulting from defects in insulin secretion, action and both. The long term effects include progressive development of retinopathy, with potential blindness, nephropathy that may lead to renal
failure, neuropathy with risk of foot ulcers, amputation, and features of autonomic
dysfunction including sexual dysfunction. Type 2 diabetes, formerly called adult onset
diabetes is the most common form (80% to 95% of all diabetes) and has an insidious onset. It
remains asymptomatic for many years. Diabetes is a major public health challenge of the 21st
century.

Epidemiological trends indicate that without proper control and prevention diabetes
prevalence will increase further to 438 million in 2030. Nearly 70% of people with diabetes
live in developing countries.[1] Increasing urbanization, industrialization, economic
advancements adversely affect the biological and environmental risk factors for diabetes and
other communicable diseases. There is a long asymptomatic prediabetic stage before the
development of diabetes. Prediabetes is one of the clinical entities appearing before Diabetes,
striking resemblance with that of Prameha. Diabetes Mellitus strikes resemblance with
Madhumeha. Madhumeha is also one variety of Vatik Prameha and is listed in Mahagada due
to its severity and chronicity. Cost effective Ayurveda lifestyle modification can contribute
towards preventing and managing the burden of Madhumeha. The study of Aahar and Vihar
reveals the rich knowledge of the Ayurveda in the prevention of Diabetes by following
lifestyle modification. Therefore it is essential to recognize the potential of Ayurveda and
Lifestyle modification plays a first step in the fight against diabetes. The review was done
with the objectives to study about Prameha, Madhumeha and lifestyle modification.

MATERIALS AND METHODS

- All the references regarding Prameha, Madhumeha and Pathya Ahar Vihar are collected
  from various textbooks and compilation is done.
- Concept of Lifestyle modification and Prameha, Madhumeha is studied in detail.

Review of Ahara Vihar: Aahar and Vihar which are suitable to Pramehi are called Pathya
and those which induce Prameha are called Apathya. Ayurveda recognized the importance
of food and daily activities in diabetes. In Pathya Ahara,[2] Pramehi Rogis advised Mantha,
Kashaya, barley, Leha and light easily digestible food, oiled barley, barley cakes, flour of
parched grains, lean or fat free meat, soup of Mudga, bitter vegetable, old Shali, Shashtika
rice, wheat, and millet, pulses of Chanak, Arahar, Kulatha, Munga etc. In oil Danti, Ingudi,
linseed and mustard oil can be used. In Apathya Ahara,[3] Pramehi patient is advised to avoid
Sauviraka, Tushodaka, Shukta, Maireya, wine, Asava, oil, ghee, milk and products like crud,
ghee and pudding rice, milk based sweets, sugarcane items, Pishtanna, Amla Yavagu, Panak, Gramya-Anupa-Audaka meat (meat dishes with high fat contents like beef, pork, fish etc.).

In Pathya Vihara: Ayurveda has mentioned the importance of physical exercise in Madhumeha. Acharya Charaka described various physical exercises, forceful massage, baths and showering from perfumed water of Khasakhasa grass, cinnamon, cardamom, eagle wood, sandal wood, and Tagara. Sushruta said that Pramehi patient should have exercise, Niyuddha (Kusti), playing sports, riding on elephant and horse, walking and practice of exercise instruments.\textsuperscript{[4]} The patient who has lack of money should go on walk of one hundred Yojana (800-900 miles approx), without making use of an umbrella and foot wear, adhering to the way of life of an ascetic or dig a source of water by himself or wander along with herd of cows subsisting on the dung, urine etc of the cows. In Apathya Vihara the patient of Prameha should avoid long and comfortable sitting, long sleeping, Diwaswapna, laziness and Ratri-Jagarana.\textsuperscript{[5]} Pathya is having a key role in the management of Prameha. Pathya and Apathya Ahar and Vihar according to Ayurveda classics is tabulated in table no 1.\textsuperscript{[6]}

1: Dietary modification in Prameha (prediabetes) to prevent Madhumeha (diabetes and complication in diabetes).

<table>
<thead>
<tr>
<th>Food Type</th>
<th>Pathy</th>
<th>Apathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>Adequate Barley, Millet, wild Millet</td>
<td>Rice, processed wheat flour, Newly harvested</td>
</tr>
<tr>
<td></td>
<td>Less Quantity: Wheat cereals</td>
<td></td>
</tr>
<tr>
<td>Pulses</td>
<td>Adequate Quantity: Bengal Gram Green Gram.</td>
<td>Black gram, Kidney beans</td>
</tr>
<tr>
<td></td>
<td>Less Quantity: horse gram, Pigeon Pea</td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>Adequate Quantity: Patola, Drumstick, Leafy</td>
<td>Starchy vegetables: Potato, Yam,</td>
</tr>
<tr>
<td></td>
<td>Vegetables like Fenugreek Leaves, vegetables with Bitter taste predominance like Bitter guard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Quantity: Bottle guard, Cauliflower, Cabbage,</td>
<td></td>
</tr>
<tr>
<td>Fats</td>
<td>Less Quantity: mustard oil, flex seed oil</td>
<td>Ghee, animal fat, Hydrogenated Ghee, Soyabean oil, Groundnut oil.</td>
</tr>
<tr>
<td></td>
<td>Meat of Goat, Rabbit.</td>
<td></td>
</tr>
<tr>
<td>Kitchen spices</td>
<td>Turmeric, Piper, Zinger, Garlic, Fenugreek seeds, Rock Salt</td>
<td>Excessive Mixed spices Coconut paste,</td>
</tr>
<tr>
<td>Fruits</td>
<td>Adequate quantity: Indian gooseberry, blackberry, Moderate Quantity: Indian bael, elephants nut, Guava, Less Quantity: Sweet lemon, Unripe Papaya, Apple,</td>
<td>Ripen Sweat fruits like Mango, Orange, Chiku, Grapes, Banana, Litchi, Ripe Papaya, Pear, Pineapple, Jack fruit,</td>
</tr>
<tr>
<td>Drinks</td>
<td>Moderate Quantity: Takra (Buttermilk), Madudaka (Honey + Water)</td>
<td>Sugarcane Juice, Whole Milk, sweet buttermilk, Curd, Excessive Water, Cold and Freeze Water, Soft cold Drinks, Alcohol</td>
</tr>
<tr>
<td></td>
<td>Less Quantity: Skimmed Milk, Tea without Sugar, Black Tea without sugar, Green Tea</td>
<td></td>
</tr>
</tbody>
</table>
**DISCUSSION**

Prameha is signifies it a lifestyle disorder. In Prameha the etiological factors aggravate Kapha, Pitta, Meda and Mamsa and obstruct the normal pathway of Vata. Agitated Vata carries the Ojas to Basti (urinary bladder) and manifest as Madhumeha, which is difficult to cure. If a person follows the dietary rules for particular disease there is very little significance of drug treatment and when a person is exposed to Apathya the drug treatment has no value, because without Pathya drug can’t cure the disease. As all the Dosha and Dhatu except Asthi along with Oja are involved in the pathogenesis of Prameha. Regular Pathya Sevana is very important. Modification of the diet consists of maintenance of proper nutrition and monitoring of calories ingested, individual food sources that make up these calories and the distribution of the calories throughout the day. Attainment of optimum body weight results in marked reduction in hyperglycemia and increase in target cell response to insulin. For a healthy body we need to discourage the harmful life style (Vihara) and find out the high risk population and make them adopt the real principles of life style through Sadvrittapalana. The diabetes prevention program with intensive changes in lifestyle (diet and exercise for 30 min/d five times a week in individuals with Impaired Glucose tolerance prevented or delayed the development of type 2 diabetes by 58% compare to placebo. In Ayurveda prospective it is important to realize that the diabetic habits vary from person to person and a study on individual diet choice is essential before any modification is suggested. Barley and green grams have high amount of dietary fiber which may be beneficial for metabolic syndrome. All the types of bitter vegetables (TiktaShaka) eg, Karela (Momordicacharantia), Methi (Trigonellafoenum), Patol(Trichosanthesdioica), Rason (Allium sativum). Udumbara (Ficusracemosa) etc. can be allowed to take as pathya. The low glycemic index, fiber and protein help to regulate blood sugar. Consuming jamun fruits daily certainly help to enhance the insulin activity and sensitivity. Amalaki fruit with full of vitamin C, B and several exceptional phytonutrients helps to decrease blood glucose in diabetics. Diabetes being a disease of deranged metabolism, special attention should be kept on the conditions of digestion (Agni) and metabolism. Not only selection of right food, is important but the processing of food, quantity of food and frequency of intake. Hard exercises have been prescribed for diabetics and obese persons. This is meant for proper utilization of fat and to consume the glucose in the body. The methods can be changed in the

| General Guideline | Increase Low Glycemic Index foods in diet, maintain Portion control, Reduce the quantity of food intake, | High Glycerin Index diet, mutton, Eggs, Poultry, butter and Milk products, Desserts like: different sweets, Ice cream |
present time according to habitat (Desha), and time (Kala). Sedentary people more insulin resistant than active people with same degree of obesity.\textsuperscript{[11]} The importance of restricted diet and increased physical activity was recognized by Susrutha and had advised to live a life like beggar or saint who lives on food received as charity or donations after moving from door to door and village to village.

It is clear such food shall be less in quantity, poor in calories and fit for prediabetics. Living like a saint or beggar also signifies life with more physical activity but less mental stress. In developing country like India with so many cultural variations it very is very difficult to prescribe strict calculated calorie food. So it is better to give options among the traditional foods among various cultures with possible modification.

5. CONCLUSION

Unhealthy lifestyle probably initiates and propagates the majority of type 2 diabetes. Lifestyle modification helps to prevent the onset of disease. Though diabetes is difficult to cure, but proper lifestyle regimen help in preventing the onset and the complications.

6. REFERENCES

