THROUGH AYURVEDA MANAGEMENT OF DIABETES MELLITUS
W.S.R. TO PRAMEHA: A REVIEW

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ABSTRACT
Around the world, Diabetes, Obesity and Cardiovascular diseases are affecting the health and well being of millions of people. These diseases are no longer confined to developed world as millions of people in developing countries are adopting westernized lifestyle and are being affected by these diseases mainly diabetes mellitus. It is a chronic medical condition associated with abnormally high levels of sugar and can last a life time. Over time, diabetes mellitus can lead to blindness, kidney failure, nerve damage and atherosclerosis, leading to strokes, coronary heart diseases and other blood vessel diseases in the body. Modern system of medicine is successful in preventing diseases of infective origin but it is difficult to prevent lifestyle diseases along with it. As Ayurveda is recognized as foremost life science and describes ways to prevent and manage lifestyle disorders. Diabetes mellitus can be prevented and better managed by principles of Ayurveda.

KEYWORDS: lifestyle disorder, life science, prevent, Ayurveda principles.

INTRODUCTION
Diabetes mellitus is becoming fastest considerable diseases in the world. India has being estimated with fastest growing population of Diabetics. It is a metabolic disorder may result in deficiency or dysfunction of the insulin production. The incidence of lifestyle diseases like
diabetes mellitus, hypertension and obesity associated with cardiovascular diseases are high on risk, with rapid economic development and increased westernization of lifestyle. In the last few decades, prevalence of these diseases has reached alarming proportions among Indians. Diabetes mellitus comprises a group of common metabolic disorders that share the phenotype of hyperglycemia. Several types of diabetes exist and are caused by a complex interaction of genetics, environmental factors and lifestyle choices. The metabolic deregulation associated with DM causes secondary path physiologic changes in multiple organ systems that impose a tremendous burden on the individual and on the healthcare system if proper preventive measures are not taken.\cite{1} Ayurveda considers health and disease both as the products of food and lifestyle. A positive lifestyle and wholesome food promote positive health and prevent diseases. With this concept that Ayurveda evolved intensive lifestyle care and advocated adoptions of Swasthavritta and Sadvritta in all spheres of life. Ayurveda conceived the significance of the errors of lifestyle in causations of all kinds of diseases, both physical and mental. Ayurveda provides better solutions in the form of proper dietary management, lifestyle advises panchkarma like detoxification and bio-purification procedures, medicaments and yoga and rejuvenation therapies for better management in Diabetes mellitus.

**Classification of Diabetes Mellitus**

- **Type 1 Diabetes** (Beta cell destruction, usually leading to absolute insulin deficiency)
  - Immune mediated
  - Idiopathic

- **Type 2 Diabetes** (characterised by variable degrees of insulin resistance, impaired insulin secretion and increased glucose production)

- **Others types of Diabetes mellitus**
  - Genetic defects of insulin action
  - Genetic defects of B cells
  - Exocrine diseases of pancreas
  - Endocrinopathies
  - Drug induced
  - Gestational\cite{2}
**Diagnosis of Diabetes mellitus** - Patients complains of symptoms suggesting of diabetes

- Test urine and ketones
- Measure blood sugar level

**Indications for test**

HbA1C ≥6.5%

Fasting plasma blood glucose ≥126mg/dl

Oral glucose tolerance test: 2hr blood glucose

≥200mg/dl

Random or casual plasma glucose test ≥200mg/dl³

**Symptoms and Complications of Diabetes Mellitus**

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>ACUTE COMPLICATION</th>
<th>CHRONIC COMPLICATION</th>
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<tbody>
<tr>
<td>Thirst</td>
<td>Diabetes ketoacidosis (DKA)</td>
<td>Microvascular-Eye disease neuropathy</td>
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<tr>
<td>Polyuria</td>
<td>Hyperglycaemic hyperosmolar state (HHS)</td>
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<td>Tiredness</td>
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<td>Macular oedema</td>
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<td>Fatigue</td>
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<td>Macrovascular- coronary artery disease</td>
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<td>Recent changes in weight</td>
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<td>Peripheral vascular disease</td>
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<tr>
<td>Blurring of vision</td>
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<td>Cerebral vascular disease³</td>
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<td>Pruritis vulvae</td>
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<td>Predilection for sweet food</td>
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<td>Mood changes- irritability</td>
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<td>Difficulty in concentrating⁴</td>
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**Management of Diabetes Mellitus**

Dietary/lifestyle modification

Oral anti-diabetic agents

**Insulin⁵**

To reach these goals, physician should identify a target level of glycemic control for each patient. Provide the patient with the educational and pharmacologic resources necessary to reach this level, monitor complications.
Drawbacks of Modern Therapy for Dm
As with any therapy, the benefits of efforts directed towards glycemic control must be weighed against the risk of treatment. Side effect of intensive treatment include-increased frequency of hypoglycaemia, weight gain, increased economic cost. In diabetes control and complications trial (DCCT) individuals with the greatest weight gain exhibited increases LDL cholesterol and Triglycerides as well as increase in BP this could increase the risk of CVD.\[^7\]

Dm in Ayurveda
Diabetes is described as prameha in ayurvedic classics. Prameha which has been correlated with DM has become a global problem in spite of advances in modern science.

Etiology
The main causes of Prameha (diabetes) are lack of exercise and improper food habits. Excess food intake, snigdha and guru gunatmak foods are the primal cause of this disease eg fish, curd, new rice, sweet, butter, ghee, milk, alcohol, udad dal are good examples. Foods that increase kapha, meda, mootra are the etiological factors for Prameha.\[^8\]\) Except these, no exercise, sleeping in day time, laziness is also causative factors of Prameha.

Types of Prameha
For the management of this disease- Prameha can be listed in 2 categories:
1. Apatarpanajanya prameha
2. Santarpanajanya prameha

Etiological classification of prameha
1. Sahaja prameha (congenital)
2. Apathyanimittaja prameha (due to overeating and poor habits)\[^9\]

These have further classified into 20 sub categories in all 3 classics of ayurveda
Vataja prameha- 4 types
Pittaj prameha- 6 types
Kaphaja prameha- 10 types

Characteristics of Prameha
The characteristic features of all types of prameha are prabhuta and aavila mootrata and medo dushti lakshanas-excessive urination and turbidity in urine and symptoms of vitiated medodhatu.\[^10\]
Complication of Prameha
Excessive thirst, loose motions, fever, burning sensation, weakness, anorexia, boils over the skin\textsuperscript{[11]} etc.

Role of Ayurveda In Prameha
According to Acharya Charak, Prameha is santarpanja vyadhi, so it should be treated by vaman, virechan and raktamokshan.\textsuperscript{[12]} Also acc to him vyayam, upwas, dhoornpan and swedan like activities, vyoshadi saktu are beneficial for prameha patient.\textsuperscript{[13]}

Acharya Sushruta, had mentioned prameha as Apathyanimittaj vyadhi and hence advised to avoid certain food such as souvirak, tushodak, shukta, mairret, sura, asav, excessive milk, curd, oil, ghee, flour and meat of the animals which live in water or near water. Then he mentioned pathya ahar for the same as shali, shashti chawal, yava, godhuma, kulattha, moong dal, oil from sarso and atasi seeds, tikta and kashaya rasatmak vegetables and jangal mamsa.\textsuperscript{[14]} He also mentioned many decoctions acc to dosha pradhanya. They are as follow:

FOR KAPHAJA PRAMEHA- paribhadra, agnimantha, neem, chitraka, khadir, patha, agaru, haridra, daruhradridra, saptaparn, durwa, karanj, arjuna, triphala aragwadh etc.

FOR PITTAJ PRAMEHA- shalsar gana, nyagrodhadi gana, manjistha, chandan, guduchi etc.

FOR VATAJ PRAMEHA- kushtha, kujat, kutaki, shinshapa, khadir, kramuk, tinduk, kapithth, shirish, palash etc.\textsuperscript{[15]}

Apart from above decoctions certain rasoushadhi like vasant kusumakar rasa, brhat vangesvvara rasa, svarna vanga, prameha chintamani rasa, guduchyadi yoga, bhudatryadi yoga, nisha triphala yoga, silajita, dhanvantara ghrita, dadimadya ghrit, chandraprabha vati, gokshuradi guggul etc can be use effectively.

Yoga and Pranayama
Regular practice of matsyendrasana, vajrasana, yogmudra, pacchimottanasana, sarvagnasana, halasana like asaanas, nadi shuddhi pranayama, bhasrika and bhramari pranayama and kapal bhati can prevent and improve the condition of pramehi.

CONCLUSION
So it can be concluded that ayurveda provides better solutions in the form of proper dietary management, lifestyle advises panchkarma like detoxification and biopurification procedures, medicaments, yoga and rejuvenation therapies for better management in prameha.
of classical references and various studies of pathya aahar for prameha are effective to control and manage the disease and also prevents complications of the disease by correcting the metabolic function of agni and whole body system.

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