A REVIEW: AN AYURVEDIC VIVECHAN OF PRAMEHA (DIABETES MELLITUS)

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Abstract:

The prevalence of lifestyle diseases is rising in the fast-food and junk food period of today. In this article, one such health problem *Prameha*, which resembles diabetes mellitus in several ways, is discussed. Every Ayurvedic text, beginning with the Vedas, describes Prameha. Prameha roga is thoroughly described in the three primary *Ayurvedic* works, or Bruha-trayi, which are the Caraka Samhita, Sushruta Samhita, and Vagbhatta Samhita. Ten Dushya are involved in the intricate pathogenesis of Prameha, with *Kapha* being the primary Dosha involved. Consequently, the fundamental tenet of treatment is to counteract *Kapha dosha* using all available means. Various regimens, medications, and diets that work against medas have also been reported in conjunction with it. According to modern medical system lifelong medication is needed for this disease. Injection of insulin is a very much annoying factor there. Modern medicine is ineffective for the management of complication of diabetes. At present due to the infuence of Corona, heart disease and diabetes increased at a very rapid rate due to fear and anxiety. Ayurveda aimed at rejuvenating the body for not only controlling blood sugar level but also ensure that no further complication should be caused. Ayurvedic treatment for Madhumeha (diabetes) is based on entire change in lifestyle of the person, along with proper medication and diet & the patient is advised to lead healthy and active life

Introduction:

According to Ayurveda excess Asyasukham(sedentary life style), swapnasukham(excess sleeping), dadhi (Excessive consumption of curds and its preparation), gramya-Oudaka-Anupa Mamsa (flesh or meat of animals), Achinta (lack of mental exercise) are the causes of madhumeh.^[1]

Ayurveda has various Pathyas guidelines to maintain health, ultimately first aim of Ayurveda. In a present time due to several causes people does not follow the proper way of lifestyle which leads to several life threatening problems & the Madhumeha is one of them.

The Diabetes Mellitus is closest entity correlated for *Madhumeha*. Diabetes Mellitus is metabolic disorder characterized by the presence of chronic hyperglycemia accompanied by greater or lesser impairment in the metabolism of carbohydrates, lipids and proteins. The origin and etiology of diabetes mellitus can vary greatly but always include defects in either insulin secretion or response or in both at the some point in the course of disease. ^[2]

Diabetes is the most ancient known disease of the world. This disease has been very well recognized, classified and its causes, pathophysiology, signs, symptoms, prognosis and treatment are described in good length and depth in *Ayurveda* texts such as Charaka Samhita and Sushruta Samhita. The *Ayurvedic* texts reflect two major categories of *Prameha*.

1. Sahaja Prameha

2. Apathyanimittaja Prameha

Apathyanimittaja Prameha is closely resemblance with the modern concepts of Type-2 Diabetes mellitus. Similarly, Ayurveda has described *Sthula Pramehi*, which clearly parallels to the current concepts of obese and its role in the origin of type-2 Diabetes mellitus. *Acharya* Charaka (1000 BC) has considered *"Prameha'* as *Santarpan janit*^[3] (Nourishing treatment) disease, caused by overeating of sweets, starchy, fatty, slimy food stuffs, new grains, excessive intake of milk, curd, ghee and meat of aquatic animals and people having inactive life style. *"Prameha'* is included in *Dushitmedoja roga*^[4] (Disturbance in adipose tissue metabolism). He has mentioned *Prameha* and *Madhumeha* of '*Jata'* type (hereditary) occurs because of '*Bija dosha'*.^[5] *Acharya* Charaka has described 20 types of '*Prameha'* and 7 types of '*Prameha pidaka'* as complication of *Prameha*^[6] and the aetiopathogenesis, subtypes, clinical features. The detail description of '*Madhumeha''* is in *Sutra Sthana*.^[7] In *Chikitsa sthana* there is a chapter for the treatment of *Prameha* and he has mentioned the difference between *"Raktapitta'* and *Prameha.*^[8]

AIMS AND OBJECTIVE

1. To study the etiopathogenesis of *Prameha* according to *Ayurveda*.

2. To study of *Madhumeha* correlation with Diabetes mellitus.

Prevalence^[9-10]

1. Globally, around 8.5% of adults aged 18 and over had raised blood glucose in 2014

2. In 2016, an estimated 41 million deaths occurred due to non-communicable diseases (NCDs), accounting for 71% of the overall total of 57 million deaths.

3. Diabetes (1.6 million deaths i.e. 4%). In 2016

MATERIAL AND METHOD

Different *Ayurveda* texts, journals, research papers, articles, authentic websites are referred to study the concept of *Ayurvedic* approach to *Prameha* and its efficacy in manifestation and sequelae of the *Prameha* WSR to Diabetes Mellitus.

Definition of *Prameha*

The word *Prameha* consists of two words i.e. *Pra* (*upsarga*-prefix) and *"Meha*'. *Meha* is derived from the root '*Mih Secane'* (*Urine*) meaning watering with reference to disease of human body. Excessive quantity and frequency are indicated by the prefix *Pra*. Therefore, the world *Prameha* means passing of urine adequately both in quantity and frequency. *Acharya* Vagbhata describes *Prameha* as frequent and plentiful urine with turbidity i.e. *Prabhutavila Mutrata*.

Nidana (Etiology)

In Madhava Nidana, it has been mentioned that "Prakarsena Prabhutam (Prachurana) VaramVaram Va Mehati Mutratyagam Karoti Yasmine Roga Sah Prameha"

The meaning of which is excess of urination with increased frequency and in the state of turbidity. The *Acharya* Sushruta and *Acharya* Vagbhatta were of the same opinion that the urine of this disease characterized by mainly two abnormalities i.e.

1. Prabhuta Mutrata (Excessive urination) - due to metabolic and hormonal changes

2. Avila Mutrata (Turbidity of urine) - due to abnormalities in the urinary tract.

Common Etiological Factors of *Prameha Roga* are given in Table No. 1

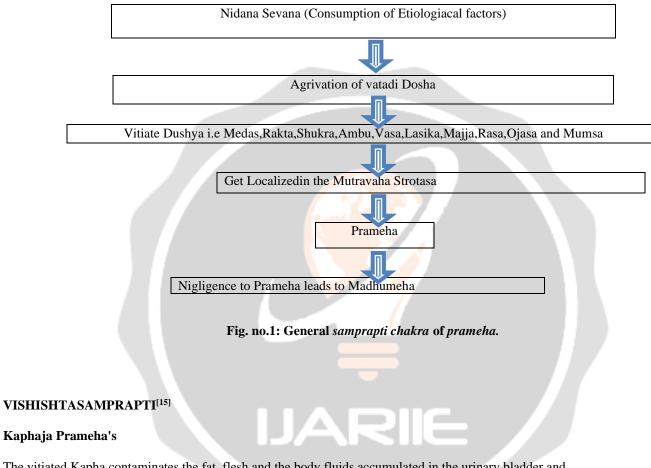
Table No. 1: Common Etiological Factors of Prameha Roga.

Nidana of prameha roga					
Bahyanidana					
Aharaj nidana ^[11]	Viharaj nidana ^[12]	Manasika nidana	Abhyantara nidana		
Excess intake of curd					
Excess intake of meat of the domestic, marshy and aquatic animals.	Avoidance of physical activities	Avoidance of mental activities or any kind of mental exercise.	Sahaja (Beeja Dosha) ^[13] Hereditary predisposition for the Prameha		
Excess intake of sugar candy and its products	Persistent of sedentary habits				
Excess intake of milk and its products					
Intake of newly harvested crops or rainy water or fresh wine for long time	Persistent of comfortable sleep and bed rest excessively	Over thinking and anxiety.			
]			

Excess intake' of heavy unctuous food and food having sour and saline taste	Avoidance of <i>Sodhana</i> <i>Chikitsa</i> or purification measures of <i>Sharira</i> .	Excessive stress and strain etc.	Defective genes other dhatu saturating measures
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General samprapti chakra^[14]

Improper processed Vata, Pitta and Kapha mixes with Dusyas i.e. Medas. Rakta, Sukra, Ambu, Vasa, Lasika, Majja, Rasa, Ojas and Mamsa in the Mutravaha Strotas leading to manifestation of twenty types of Prameha. (Fig No.1)



The vitiated Kapha contaminates the fat, flesh and the body fluids accumulated in the urinary bladder and causes 10 types of Prameha's.

Pittajaprameha's

Similarly, Pitta aggravated by consumption of hot foods and other etiological factors contaminates the fat, flesh and body fluids causing 6 types of Pittaja prameha's.

Vataja prameha's

When Pitta and Kapha get deteriorated in quality and quantity in comparison to Vata, the Vata Dosha gets aggravated and pulls the Dhatus i.e., Vasa, Majja, Oja and Lasika into the urinary bladder causing 4 types of Vataja Prameha's.

Poorvarupa of prameha^[16]

Aggravated all the three *doshas* develop following characteristic features during premonitory stage of the disease: \Box Matting of hairs

- \Box Sweetish-ness in oral cavity
- □ Numbness and burning sensation in hands and feet
- □ Dryness in mouth, palate and throat
- □ Thirst
- □ Lassitude
- □ Excess accumulation of waste over the body especially in palate, throat, tongue & teeth
- □ Adherence of excreta in body orifices
- \Box Burning sensation and numbress in body
- □ Accumulation of bees and ants over the body and urine
- \Box Abnormality in the urine
- \Box Fleshy smell from body
- □ Excess-sleep and drowsiness

Rupa (Lakshana) - Symptoms of Prameha

The complete manifestation of disease with prominent clinical features is termed as *Rupa.[20] Rupa* of *Prameha* are mentioned as follows.

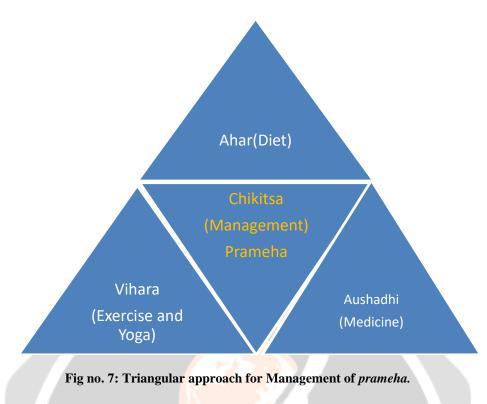
- □ Prabutamutra (Polyuria)
- □ Avila mutra (Appearance of abnormalities in Urine)
- □ Shariragauravam (Heaviness in the body)
- □ Vibandha (Constipation)
- □ *Sharirajadytaa* (Stiffness in body)
- □ Kasaya, madhura, Rukshamutra (Astringent and Sweet urination)
- □ *Shvetaghanmutra* (White and Turbid urination)
- □ *MukhaMadhurya* (Sweet taste in the Mouth)
- Akasmatmutranigaman (Bed wetting in children)

DIFFRERENTIALDIAGNOSIS^[17]-

If the color of the urine is yellow or if blood is excreted through the urine without the prior manifestation of premonitory sign and symptoms of Prameha, such a person should on the other hand be diagnosed as a case of Rakta-Pitta.

LINE OFTREATMENT^[18]

Management of *prameha* is consists of triangular approach. Fig No. 7
1. *Ahara* (Diet)
2. *Vihara* (Exercise & Yoga)
3. *Ausadhi* (Medicines



Ausadhi (Medicines)

As it is evident that *Kapha Dosa* is predominant in *Prameha* and the *Dusya Meda* is of same nature. In *Ayurveda* for the treatment of *Prameha*, drugs having *Tikta* (bitter), *Katu* (pungent) and *Kasaya* (astringent) *Rasa* have been recommended. *Acharya* Susruta clearly indicated the decoction of *Salasaradi Gana* drugs with *Shilajatu* for the treatment of "*Prameha/Madhumeha*".

Useful herbs -Drugs having Tikta, katu, and Kashaya rasa help to pacify kapha & Meda therefore recommended in diabetes. Haridra, Nimba, karela, Bela, Haritak, Patola, Guggulu, Amalaki.

Ahara Chikitsa (Diet Therapy)

First of all, "*Nidana Parivarjana*" is very firmly encouraged in all classics for the management of disease. So, *ahara* which does not increase body weight and opposite to etiological factors of *Prameha* is advised to the patient. It is well known that diabetes is a disease of modified life style and faulty *Agni*, so more emphasis should be given on diet and biopurificatory measures. *Acharya* Charaka has recommended *Yava* etc. as a principle diet for *Pramehi*. In this concern he suggests roasted *yava*, *sattu* of *yava* and *chapatti* made by *yava*.

Vihara (Exercise)

As mentioned earlier, lack of exercise and excessive sleep during day and night time play an important role in etiologic and pathogenesis of *Prameha*. *Acharya* Sushruta has described that in advance stage of *Prameha*, *Pramehi* should practice of regular physical exercise, wrestling, actual sports, riding on a horse, or an elephant, long walks, pedestrian journeys, practicing archery, casting of javelins etc.

Pathya and apathya

Ayurveda recognized the importance of food and daily activities in diabetes.

Pathya Ahara:^[19]

Prameha Rogi is 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.

Apathya Ahara:^[20]

Prameha patient is advised to avoid *Sauviraka*, *Tushodaka*, *Shukta*, *Maireya*, wine, *Asava*, oil, ghee, milk and products like 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.)

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*. Acharya Sushruta said that *Prameha* patient should have exercise, *Niyuddha* (*Kusti*), playing sports, riding on elephant and horse, walking and practice of exercise instruments. 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.

Apathya Vihara:

The patient of *Prameha* should avoid long and comfortable sitting, long sleeping, *Diwaswapna*, laziness and *Ratri-Jagarana*. Pathya is having a key role in the management of *Prameha*.

DISCUSSION

Acharya Charaka has cited that there may not be the Nomenclature of all the disease in text however such diseases can be managed on the basis of Dosha concern and it can be exposed by Nidana Panchak i.e Nidana, Poorvarupa, Rupa, Upashaya, Samprapti. These are the basic tools for the diagnosis. Prameha is the disease caused by the over nutrition. Over nutrition can be resulting of both by diet as well as by other life style activities like sitting life style. Over nutrition is the factor which over nourishes the body, leading to increase in the quantities of Kapha in the body. Faulty dietary habits and other Nidana mentioned aggravating the Kapha can give rise to Prameha, but to initiate a Vyadhi in the body there must be involvement of Vata also because it is the only force responsible for physiobiochemical activities in the body. In Prameha there is in co-ordination of function of the Agni (Ahara Parimanakarabhava) overeating leading to Tridosha Prakopa. The impaired Agni, both at the level of Jatharagni (GI level) and at Dhatvagni level (tissue level) is disturbed leading to the increase of Amadosha in terms of hyperglycemia, hypercholesterolemia, hypertriglyceridemia, high levels of LDL and other parameters of impaired lipid profile. Increase in these parameters are reflected in the body through increased weight, waist to hip ratio (WHR), early fatigue, as symptoms of obesity and Prabhuta Mutrata (increased micturition), Avila Mutrata (turbid urine) and other symptoms of Prameha. Prameha can be prevented if intervention in the form of Pathya Ahara and Vihara is applied in early stages, either pre diabetes or healthy state. For the high risk individuals, dietary and lifestyle plans should be made in accordance with the day to day requirement of an individual. Ayurveda suggests increased intake of fiber rich green vegetables and cereals Patola, Tanduliyakam, Yava etc. and are also recommended to diabetics by modern researchers too as complex carbohydrates like cereals, whole grains and vegetables are recommended at least to 50% of diabetic food because simple carbohydrates are broken down easily and increases blood glucose levels fast. Pathya Ahara and Vihara in daily routine, maintaining physical wellbeing, mental coolness and holiness are equally important.

CONCLUSION

It can be concluded that the *Nidana panchaka* is a successive way of diagnosing a disease at various stages. Proper knowledge of the *Nidana panchak* helps us for early diagnosis of the disease and also helps in differential diagnosis. In short, *Nidana* is to be avoid for the treatment, *Purvaroopa* helps in to diagnose at a very early phase, *Roopa* is an important tool indicating the stage, severity, type of disease, *Upashaya-Anupasaya (pathya-apathya)* plays an important role for treatment as well as differential diagnose and *Samprapti* helps to break the pathogenesis, accurately according to the *Dosha-DushyaSamurchana* and to stop the progress of disease and to reverse the disease. Hence after gaining the knowledge of *Nidana panchaka* helps physician to get proper path for treating the disease. So along with drug interventions, emphasis must be given to the high risk factors i.e. dietary and lifestyle changes, socioeconomic, behavioural and nutritional concerns and to promote a healthier lifestyle.

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