



A Review on Ayurvedic Concept of Diabetes mellitus

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ABSTRACT

Today's era is dominated by disorders of life style and *ayurveda* is the prime solution to these disorders. Diabetes is a chief metabolic disorder of present era. India is set to come up as the diabetic capital of the world. Diabetes mellitus is a group of metabolic diseases identified by hyperglycemia resulting from defects in insulin secretion, insulin action or both. Prevalence rate is 8.7% in total of adult population and it is rising day by day. The chronic hyperglycemia of diabetes is linked with long term damage, dysfunction and failure of various organs exclusively the kidneys, eyes, nerves, heart and blood vessels.

Prameha as detailed by *aacharya charak* and *sushruta*, is one of the disorders that have emerged out of urban life style. The causes and symptomatology of *prameha/madhumeha* defined few thousand years back run parallel with the causes and symptoms of diabetes mellitus cited by the system of modern medicine. Hence, it can be correlated with diabetes mellitus. The modern medicines given in diabetes mellitus provide only symptomatic relief and the patient have to take them for lifelong, which will be having some unwanted side effects. Ayurveda can provide more suitable cure for the disease.

Key Words: *Diabetes mellitus, Lifestyle Disorders, Prameha, Madhumeha*

INTRODUCTION

Diabetes mellitus is a group of metabolic disorders characterized by a high blood sugar level over a prolonged period of time. It develops when pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. The growing prevalence of diabetes and other non – communicable diseases is driven by a combination of factors – sedentary lifestyle, rapid urbanization, unhealthy diets, tobacco use and increasing life expectancy. Much of the diabetes burden can be stopped by behavioral changes

favoring a healthy diet and regular physical activity.

In *ayurvedic* terminology, diabetes can be correlated with *prameha/madhumeha*. Objective of the present paper is to represent the general information available on text to manage the diabetes.

MATERIALS AND METHODS

For the present review thorough literary study is performed. The detailed content and references are



analyzed from available text. Main text referred is *charak, sushruta, vagbhata* and other *samhitas*. Few more *ayurvedic* books also referred. Relevant references are taken from other modern books.

DEFINITION

Aacharya vagbhat defined prameha as frequent copious urine with turbidity i.e. *prabhut avilamutrata*. *Madhumeha* is a clinical entity in which huge amount of urine similar to *madhu* having *madhur* and *kashaya* taste, *ruksha* texture and honey like color, thus body attains sweetness¹.

CLASSIFICATION^{2, 3, 4, 5}:

- ACCORDING TO ETIOLOGY:
 - ❖ *Sahaj* – hereditary or chromosomal defects from parents.
 - ❖ *Apathyanimittaja* – because of improper diet & activities.
- ACCORDING TO *DOSHA*:
 - ❖ *KAPHAJ PRAMEHA*: further divided into 10 types-
 - ✓ *Udak meha*
 - ✓ *Ikshuvalikarasa meha*
 - ✓ *Sandra meha*
 - ✓ *Sandra Prasad meha*
 - ✓ *Sita meha*
 - ✓ *Shukla meha*
 - ✓ *Shanair meha*

- ✓ *Shukra meha*
- ✓ *Sikata meha*
- ✓ *Alala meha*
- ❖ *PITTAJ PRAMEHA*: further divided into 6 types –
 - ✓ *Kshar meha*
 - ✓ *Nila meha*
 - ✓ *Manjistha meha*
 - ✓ *Rakta meha*
 - ✓ *Kala meha*
 - ✓ *Haridra meha*
- ❖ *VATAJ PRAMEHA*: further divided into 4 types –
 - ✓ *Vasa meha*
 - ✓ *Majja meha*
 - ✓ *Lasika meha*
 - ✓ *Hasti meha*

NIDANA (ETIOLOGY):

For convenience, etiological factors can be broadly classified into *sahaj* and *apathyanimittaja*.

SAHAJ NIDANA: hereditary / congenital.

APATHYANIMITTAJA NIDANA: further divided into –

- Physical and mental causes.
- Dietary causes.

1. PHYSICAL AND MENTAL CAUSES

- *Asyasukham* – comfortable seating (sedentary lifestyle, lack of physical activities and exercise)
- *Swapnasukham* – comforts of sleeping, excess sleep
- *Chinta* (stress)
- *Shoka* (grief)
- *Bhaya* (fear)
- *Kapha krut cha sarvam* (all foods and lifestyle activities which increase *kapha*)
- *Alasya* (sedentary life)

2. DIETARY CAUSES^{6,7,8,9,10}

- *Dadhi* (excessive consumption of curd)



- *Gramya – oudaka – anupa mamsa* (flesh of animals leaving in water and marshy regions).
- *Nava aana pana* (food prepared from new grains)
- *Payansi* (excessive consumption of milk, its derivatives and preparations)
- *Guda* (jaggery)
- *Guda vaikruti* (jaggery its derivatives and dishes made of it)
- *Madhur aahar* (sweet substances)
- *Pishta aahar* (carbohydrate rich food)
- *Ikshurasa* (sugarcane juice)
- *Adhyasana* (repeated food intake)
- *Adhikashana* (excess food intake)
- *Samashana* (improper diet)
- *Guru aahar* (heavy food)

POORVARUPA (PREMONITARY SYMPTOMS) ^{4, 11, and 12}:

- *Malin danta* (excess accumulation of waste over teeth)
- *Hastpad daha* (burning sensation in hands and feet)
- *Mukhmadhurya* (sweet taste of mouth)
- *Shithil angata* (flaccidity of body)
- Excessive growth of hairs, nails etc...
- Matting of hair
- *Sweda* (excessive sweating)
- *Trishna* (thirst)
- Adherence of excreta in body orifices.
- Fleshy smell from body
- Accumulation of ants and bees over the body and urine.

RUPA (CLINICAL FEATURES):

- URINE CHARACTERISTICS¹³.
- ❖ *Prabhuta mutrata*: This cardinal feature is mentioned by all *aacharyas*. *Aacharya vagbhata* mentioned *Prameha* as disease of *mutratipravrtija* i.e. patient voids more urine both in quantity and frequency. According to *Gaydasa*, the excess urine quantity is because of liquification of the *dushyas* and their amalgamation¹⁴.

❖ *Avilmutrata*: Patient voids turbid urine. *Gaydasa* and *Dalhana* opine that the turbidity of urine is due to the nexus between *mutra*, *dushya* and *dosha*.

• ASSOCIATED SIGNS AND SYMPTOMS¹⁰:

- ❖ *Sahaj Pramehi* :
- ✓ *Krishha* (asthenic)
- ✓ *Alpashi* (consumes less food)
- ✓ *Bahu pipasa* (voracious thirst)
- ✓ *Ruksha* (dry body)
- ✓ *Parisaranashila* (restless always desires to wander)
- ❖ *Apathyanimittaja* :
- ✓ *Sthula* (obese)
- ✓ *Snigdha* (unctuous body texture)
- ✓ *Bahuasi* (voracious eater)
- ✓ *Sayya asana swapnashila* (like to sit down and sit always)

SAMPRAPTI (PATHOGENESIS) ^{2, 4, 6}:

Improper processed *vata*, *pitta* and *kapha* mixes with *dushya* like *meda*, *rakta*, *shukra*, *vasa*, *lasika*, *ambu*, *mamsa*, *majja*, *rasa* and *ojas* in *mutravaha srotasa* leads to manifestation of 20 types of *prameha*. Increase or decrease of proportion in



combination of *dosha*, *dhatu*, *aahar* and *mala* are main factors responsible for development of various types of *prameha*.

Aacharya sushruta illustrate it as if all the *pramehas* are not treated first, they will progressively pass the stage to stage of *madhumeha*.

Aacharya vagbhata divides *madhumeha* into two types on the basis of *samprapti*. *Madhumeha* is included in *vataj* type. If *vata prakopa* arises due to *sarvadhātu kshaya*, it is called *dhatukshaya janaya madhumeha* and if *vata prakopa* occurs as a result of *vatavarana*, it is called as *avaranjanya madhumeha*.

UPDRAVA (COMPLICATIONS)⁴:

Thirst, diarrhea, fever, anorexia, indigestion and weakness, development of *prameha pidikas* and purification of muscle tissue leads to *alaji* and *vidradhi* in chronic stage of *prameha*.

SADHYA – ASADHYATA:

- *KAPHAJ PRAMEHA* – Curable
- *PITTAJ PRAMEHA* – Palliable
- *VATAJ PRAMEHA* -
- ❖ *Asadhya*, when occurred due to *dhatu kshaya*.
- ❖ *Krichra sadhya*, when occurred due to *avarana*.

Madhumeha is included in *vataj meha*. So when *vata* provocation is due to *dhatukshaya*, the type is considered as *asadhya prameha*. While the other which is produced by *avaranjanya vata* is included in *krichra sadhya*¹⁵.

Charak mentioned that *madhumeha* produced due to *beeja dosha* is incurable¹⁶.

MANAGEMENT:

- PRINCIPLE OF MANAGEMENT (*CHIKITSA SUTRA*)
- MANAGEMENT (*CHIKITSA*)

CHIKITSA SUTRA¹⁷:

Charaka describes that in patients who are obese and strong body built, one should undergo *samshodhana* treatment. Who are athletic body built and weak, one should adopt *brihmana* therapy.

Sushruta says that *krisha pramehi* should be treated with *santarpana* measures processed diet and drink, while obese should be treated with *apatarpana* measures (*shodhana & vyayama*).

In all types of *prameha*, *kapha* is aggravated, but in *madhumeha* comparatively *vata* is also vitiated. Hence, therapies will be directed at both *kapha & vata* simultaneously.

CHIKITSA:

It consists of triangular approach –

- **AAHAR (DIET THERAPY)¹⁸:**
- ❖ **PATHYA (WHOLESOME DIET):**
 1. CEREALS: *Yava* (*Hordeum vulgare* - Barley) is the best, different preparations of food, prepared from Barley can be given e.g. *Mantha*, *Odana*, etc. Wheat (*Godhuma*), Rice - *Ayurveda* prescribed old rice (*purana shali*).
 2. PULSES: *Mudga* (*Vignaradiata* Greengram), *Chanaka* (*Cicer arietinum* Linn. – Bengal gram), *Kulattha* (*Dolichos biflorus*), *Adhaki* (*Cajanus cajan* - Pigeon pea) etc...
 3. VEGETABLES: All types of bitter vegetables (*Tikta shaka*) e.g. *Karela* (*Momordica charantia* - Bitter gourd), *Methi* (*Trigonella foenum-graecum*



- Fenugreek), *Patola* (Vietnamese luffa, Vietnamese gourd, or Chinese okra), *Rasona* (*Allium sativum* Linn. – Garlic), *Udumbara* (*Ficus racemosa* - Cluster Fig Tree, Indian Fig Tree), etc...

4. FRUITS: *Jambu* (*Syzygium cumini* - Black berry), *Amalaki* (*Phyllanthus emblica* - Indian gooseberry), *Kapitha* (*Limonia acidissima* - Wood Apple, Monkey Fruit), *Tala phala* (*Borassus flabellifer* - the Asian Palmyra palm, Toddy palm, Sugar palm), *Kharjura* (*Phoenix sylvestris* –Date Sugar Palm), *Kamal* (*Nelumbo nucifera*) *Utpala* (*Nymphaea Stellata*) etc...

5. SEEDS: *Kamal*, *Utpala* seeds can be allowed to take.

6. LIQUOR: Old *sura* (old wine) may be given.

7. OILS: Mustard oil (*Sarshapa taila*) is best. *Ingudi* (*Balanitis aegyptiaca*) *Ghrita* may be used in *pittaja prameha*.

❖ **APATHYA (UNWHOLESOME DIET):**

Ikshu (sugar cane juice), *Taila* (oil), *Ghrita* (ghee), *Guda* (jaggery), *Madya* (alcohol), *Pishtanna* (carbohydrate rich food), *Dadhi* (curd), *Navanna* (new grains), *Kshara* (Alkali), *Sura* (Alcoholic beverage), *Amla* (sour food), *Anupa mamsa* (Flesh / meat of animals living in marshy areas etc)

• **VIHARA (PHYSICAL ACTIVITY):**

❖ **PATHYA (WHOLESOME):**

Walking, travelling on horses, elephants, playing outdoor games, different form of martial arts, roaming in different places without slippers and umbrella.

❖ **APATHYA (UNWHOLESOME):**

Eksthana asana, *divaswapna*, *dhoompana*, *raktamokshan*, *swedan*, *mutravega dharan*.

• **AUSHADHI (MEDICINES)¹⁵:**

❖ **SWARASA** : *Amalaki*, *Haridra*, *Bilwapatra*, *Nimbapatra*, *Guduchi*

❖ **KWATHA** : *Vidangadi*, *Phalatrikadi*, *Manjishthadi*, *Mustadi*, *Pathadi*

❖ **CHURNA** : *Triphaladi*, *Mustadi*, *Arkadi*, *Gokshuradi*,

❖ **GUTIKA** : *Chandraprabha*, *PraMehantak Vati*

❖ **GUGGLU** : *Gokshuradi Guggul*

❖ **MODAKA** : *Kastur Modaka*

❖ **PAKA** : *Pugapaka*, *Ashwagandhadi paka*, *Draksha Paka*.

❖ **ASAVA ARISHTA**: *Lodhrasava*, *Dantyasava*, *Madhukasava*, *Lodhrarishta*, *Devdarvyadiarishta*.

❖ **AVLEHA** : *kushavleha*, *Bangavleha*

❖ **GHRITA**: *Dhanvantar ghrita*, *Trikantakadi ghrita*, *Dadimadi ghrita*, *Shalmali ghrita*.

❖ **RASAUSHADHI**: *Vasant kusumakar Rasa*, *Mehamudgar Rasa*, *Brihat Bangeshwar Rasa*, *Prameha gajkesri Rasa*, *Tribanga Bhasma*.

CONCLUSION

Diabetes mellitus is characterized by state of chronic hyperglycemia due to impairment of insulin secretion or action. In today's era people with diabetes have to face further complications like kidney failure, blindness and cardiac disorders. It can be concluded that diet, genetic, environmental and immunologic factors play main role in causation of this disease.



Management through dietary intervention along with life style alteration is the most effective way to prevent and reduce the danger of developing diabetes and its complications. Awareness, proper medication and daily exercise can lessen the severity of the disease. The approach of *ayurveda* in this field is typically preventive and the medicines can provide better cure for the disease. The target of this article is to give general information about the *ayurvedic* perspective of diabetes mellitus.



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