

**REVIEW ARTICLE ON AYURVEDIC APPROACH TO
MADHUMEHA-DIABETES MELLITUS****Vd. C. S. Tanmane*¹ and Vd. T. P. Petkar²**¹Professor & H.O.D Kayachikitsa Department,²M.D Scholar Kayachikitsa Department,

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ABSTRACT

Today's era is dominated by disorder of life style and *Ayurveda* is the oldest system of medicine. *Prameha* is the disease of *Mutravaha srotas* having *Kapha* dominancy. In all, 20 types of *prameha* *Madhumeha* runs parallel with the causes of Diabetes Mellitus mentioned by the system of modern medicine *Madhumeha* has been describes as passing of honey like urine in excess amount. *Ayurveda* includes *Prameha* amongst *Asto Mahagada*. The term Diabetes mellitus describes a metabolic disorder of multi etiologies characterized by chronic hyperglycemia with disturbances of carbohydrate, fat, protein metabolism resulting from defects in insulin secretion, insulin action, or both.

KEYWORDS: *prameha, mutravaha srotas, madhumeha, diabetes mellitus.***INTRODUCTION**

Diabetes mellitus is a disorder characterized by chronic hyperglycemia defect in insulin secretion, insulin action, or both. Four types of diabetes have been recognized type1 (beta cell destruction-autoimmune/idiopathic), type2 (defect in insulin resistance or insulin secretion, impaired glucose tolerance), type3 (from specific etiology), type4(gestational). Type 2 diabetes accounts for 90-95% of all diagnosed diabetes cases.^[1] All the description related to *Prameha* available in *charak nidanstan* chap 4, *charak chikitsasthan* chap 6, *sushrut nidanstan* chap 6, *sushrut chikitsasthan* chap 11 -13, *vagbhat nidansthana* chap 10, *vagbhat chikitsasthan* chap 12. *Yogratnakar*, *bhaishajya ratnavali* chap 37, *vangsen*, *madhavanidan* chap 33, *chakradatta*. All the data collected and reviewed. *Madhumeha* is the subtype of

prameha, *madhumeha* is of two distinct types, one due to aggravation of *vata* on account of *dhatukshaya* and other due to *Kapha-meda Avarana*.^[2]

AIMS AND OBJECTIVES

AIMS: To study *hetu*, *purvaroop*, *samprapti ghattak*, *samprapti*, *roop*, *upshay anupshay* of *prameha*.

OBJECTIVES: Reviewing various literature related to *prameha* and its management.

MATERIAL AND METHODS

Classification of Diabetes Mellitus^[3]

Type-1 Diabetes Mellitus -It is formerly called juvenile diabetes, is usually diagnosed in children, teenagers and young adult. Type 1 diabetes may develop in adults. This is an autoimmune disease causing specific destruction of Beta- cell of pancreas which result in an absolute insulinopenia.

Type-2 Diabetes Mellitus - It is formerly called adult onset diabetes, is the most common form and has an insidious onset. It is commonly seen in adults, but can occur even in childhood. Weight loss is uncommon unless hyperglycemia is severe while ketosis is rare, it begins with insulin resistance and initially there is a counter regulatory hyperinsulinemia. With time, the pancreas loses its ability to secrete enough insulin in response to meals and clinically develops diabetes.

Gestational Diabetes – It is carbohydrate intolerance resulting in hyperglycemia of variable severity with onset or first recognized during pregnancy.

Other types of diabetes

- Genetic defects of the Beta-cell
- Genetic defects in insulin action
- Disease of the pancreas
- Excess amount of counter regulatory hormone
- Infection
- Rare autoimmune disorder
- Genetic syndromes associated with diabetes

Criteria for diagnosis of DM**Fasting**

- Normal-<110 mg/dl
- Impaired fasting glucose->110 and > 126 mg/dl
- Diabetes mellitus- equal or> 126 mg/dl

Post meal (2 hrs after post load)

- Normal-<140mg/dl
- Impaired glucose tolerance->140 and<200mg/dl
- Diabetes mellitus->200 mg/dl with symptoms

ETIOLOGICAL FACTORS (HETU)^[4]

- **ASYASUKHAM**- Overindulgence in the pleasure of sedentary habits
- **SWAPNA SUKHAM**- excess sleep
- **DADHI**- curds
- **GRAMYA AUDAK ANUP**- soup of the meat of domesticated and aquatic animals and animals inhabiting marshy land
- **RASA**- milk and its preparations
- **NAVANNA PAN**- freshly harvested food articles, freshly prepared drinks
- **GUDA**- preparations of jaggery
- **KAPHA KRUCCHA SARVAM**- *kapha*- aggravating factors are responsible for the causation of *prameha*.

PREMONITORING SYMPTOMS(PURVAROOP)^[5]

Sweating, body odor, flabbiness of the body, liking for constantly lying on the bed, sitting, sleeping and leading an easy life, a feeling as if the cardiac region is covered with extraneous material, exudation of excreta from eyes, tongue and ears, corpulence of the body, excessive growth of hair and nails, liking for cold things, dryness of throat and palate, sweet taste in the mouth, burning sensation in hands and legs and swarming of ants on the urine- these are the premonitory signs and symptoms of *prameh*.

CLASSIFICATION^[6]**1) Based on etiology**

- a) *Sahaja (mata pitta beeja doshakruti)*

b) *Apathya nimittaja* (unwholesome food, exercise etc)

2) According to physic

a) *Apatharpana uthaja prameha* describing the lean diabetic

b) *santharpana uthaja prameha* relating the obese diabetic

3) According to doshic causes, these classified as twenty types

a) *Vataja pramehas*- There are totally four *vataja pramehas*.

b) *pittaja pramehas*- There are totally six *pittaja pramehas*.

c) *Kaphaja pramehas*- There are totally ten *kaphaja pramehas*

out of these, diabetes mellitus is termed as *madhumeha*. It is one of four *Vataja pramehas*.

SAMPRAPTI GHATAK^[7]

- *Dosh*- Vaat, Pitta, Kapha
- *Dushya*- Meda, Mamsa, Kleda, Rakta, Vasa, Majja, Lasika, Rasa and Ojas
- *Strotas*- Mootravaha
- *Strotodusti*- Atipravrutti
- *Agni*- Dhatvagni
- *Udbhavasthan*- Kosta
- *Vyaktastan*- Mootravaha srotas

PATHOGENESIS(SAMPRAPTI)^[8, 9]

Acharya Charak says- The etiological factors aggravate *kapha*, *pitta*, *meda*, *mamsa* obstruct the normal pathway of *vata*. Agitated *vata* carries the *Ojus* to *basti* (urinary bladder) and manifest *Madhumeha* which is difficult for management. Acharya Vagbhatta says *Madhumeha* originates in two ways-

1) By the Aggravation of *Vata* caused by *Dhatukshaya*, manifests as thin and 2) By the obstruction of *Vata* caused by *Doshas* covering it

SYMPTOMS (LAKSHANA)^[10]

General Features of diabetes syndrome is passage of profuse and or turbid urine the urine becomes like honey and entire body becomes very sweet. *Medo dushti lakshanas* are main symptoms of *prameha*.

Shushrut acharya also says that *Sahajameha rogi* are usually *Krishha* (thin built) while *Apathyanimittaja rogi* are usually *Sthula* (obese)

OTHER CLINICAL SYMPTOMS^[11]

Prabhoota mutrata (polyuria), *Avil mutrata* (Turbid urine) and

- 1) *Malina danta*- Tartar in teeth
- 2) *Hasta pada daha*- burning sensation in limbs
- 3) *Trishna*- Excessive thirst
- 4) *Madhurasya*- Sweetness in mouth
- 5) *Prabhutmutrata*- Excessive urination
- 6) *Avila mutrata*- Turbid urination
- 7) *Deha chikknata*- Excessive glossy oily skin
- 8) *Madhu samana varana*- Urine having colour of honey
- 9) *Sweda*- Excessive perspiration
- 10) *Anga gandha*- Bad body odour
- 11) *Shithilangata*- Flaccidity of muscles
- 12) *Shayana asana swapana sukha*- Desire for sedentary life
- 13) *Shitapriyatwa*- Desire for cold food and environment
- 14) *Gala talu shosha*- Dryness of palate and throat

MAIN MODERN SYMPTOMS^[12]

- 1) Polyuria (Excessive Urine)
- 2) Polyphagia (excessive Hunger)
- 3) Polydipsia (Excessive Thirst)
- 4) Exhaustion/Tiredness
- 5) Body ache
- 6) Giddiness
- 7) Polyneuritis (Numbness/Tingling)
- 8) Visual disturbance

COMPLICATIONS(UPADRAVAS)^[13]

Improper digestion, Loss of taste, Vomitting, Burning sensation, Thirst, Sour belching, Fainting, Loss of sleep, Tremors, Emaciation, Dyspnea, Too much elimination of urine, Trouble by appearance of deep seated *Pidikas* (Eruption), Erysipelas, Feeling of heaviness of the body.

Late complication- Atherosclerosis, Coronary heart disease, Cerebrovascular disease and Peripheral vascular disease, Cataract, Diabetic ulcer(Diabetic foot), Infection, Microangiopathy, Nephropathy-Polyneuropathy, Mononeuropathy, Radiculopathy, Autonomic neuropathy.

PROGNOSIS^[14]

- 1) **Sadhya-** Curable: Patient who have diagnosed early in onset, those who are *sthoola* (obese) and origin of their disease in *Apathyaja*.
- 2) **Yapya-** Palliable: *Pittaj prameha* and certain types of *Kaphaj pramehas* are however helps control with treatment.
- 3) **Asadhya-** Incurable: *Vataj prameha* describes the incurable version of *prameha* and inherited diabetes, *Krishna* (lean) patient who is suffering with *sahaja*.

TREATMENT^[15, 16]

According to *Charak acharya* treatment in diabetic patient changes according to built. Those who are obese and well built, should adopt *Samshodhan chikitsa* and who are thin and weak should undergo for *Bruhana* therapy. *Samshodhan* means *Snehana* (preparation of oil internally and externally), *swedan* and *Shodhan* which includes *Vaman Virechan Basti*.

Basti: It is contraindicated in *Prameha* since it aggravated the disease but some special *basti* are indicated in the treatment of *Prameha*.

Kashaya of *sursadi gana* is indicated.

Panchtikta basti prepared with *Patola*, *Nimba*, *Bhunimba*, *Rasna*, *Saptaparna*.

Vit-Khadir basti-Basti prepared with the *kwath* of *Somvalk* (*Vit-khadir*) is indicated for *Prameha*.

Similarly, *Shushrut acharya* says *Krush Pramehi* should be treated with *Santarpana chikitsa* while obese should be treated with *Apatarpana* measures (*Vyayama* and *Shodhana*)

Nidan pariwarjan, *Ahar*, *vihar* and *Aushadhi* plays an important role in management of diabetes.

Ahar^[15]

Charak acharya recommended *Yava* to first given to animals and to collect remaining part from the dung of that animal should be consumed by *Pramehi*.

Cereals

- *yava*- Barley (*Hordeum vulgare*)
- *Godhooma*- Wheat
- Rice: *Puran shali*- old rice
- *Shyamaka, Kodrava* (Sprouts)
- Bajara

Pulses

- *Mudga* (*Vignaradiata* greengram)
- *Chanaka*- Bengal gram (*Cicer arietinum*)
- *Kulattha* (*DoiLichos biflorus*)
- *Adhaki*- Pigeon pea(*Cajanus cajan*)

Vegetables

Tikta shaak (Bitter vegetables)

- *Karela*- bitter gourd (*Momordica charantia*)
- *Methi*- Fenugreek(*Trigonella foenum*)
- *Patola*- Vietnamese gourd or Chinese Okra(Vietnamese luffa)
- *Rasona*- Garlic(*Allium sativum*)
- *Udumbara*- Cluster fig (*Ficus racemosa*)

Fruits

- *Jambu*- Black berry (*Syzygium cuini*)
- *Amalaki*- Indian gooseberry (*Phyllanthus emblica*)
- *Kapitta*- Curd fruit (*Limonia acidissima*)
- *Tala phal*- Sugar palm/Cambodian Palm (*Borassus flabellifer*)
- *Kharjura*- Date sugar palm (*phoenix sylvestris*)
- *Kamal*- Sacred lotus (*Nelumbo nucifera*)
- *Utpal* (*Nymphoea stellata*)

Seeds: *Kamal, Utpal.*

Flesh

- *Harina mamsa* (Deer flesh)
- *Shashaka mamsa* (rabbit)

- Bird like *Kapotha*, *Titira*.

Liquor: *Old sura* (old wine)

Oil

- *Sarshapa taila* (Mustard oil)
- *Ingudi ghritha* (*Balanitis aegyptiaca*)

EXERCISE

Since diabetic is a derange metabolic disorder, by doing hard exercise utilizes fat and metabolize carbohydrate.

Charak said, Poor class diabetic patient should walk about 100 miles, bare footed, not staying more than one night in the settle place, should eat only the things available by begging and keeping restraint on his sense organs.

Rich class diabetic should eat only *Shyamaka*, *Kodrava*, *Amalaki*, *Kapitha* etc and reside with cattle (domestic animal). *Ruksha* stuff should be taken by patient, should stay with cow and eat the above with urine and faeces of cow.

Other diabetic patient should either do farming or digging a well.

Common *Aasana* that are effective in diabetes are-

- *Padmasan*
- *Shalabhasan*
- *Mayurasan*
- *Suryanamaskar*
- *Dhanurasan*.

AUSHADHI^[17]

Drug such as *Tikta* (bitter), *Kashaya* (astringent) *rasatmak* improves fat and carbohydrate metabolism by correcting *pachakagni*.

- **E.g:** *Musta* (*Cyperus Rotundus*)
- *Daruharidra* (*Berberis aristata*)
- *Arjuna* (*Terminalia arjuna*)
- *Khadir* (*Acacia catechu*)

- *Lodhra* (*Symplocos racemosa*)
- *Guduchi* (*Tinospora cordifolia*)
- *Patol* (*Trichosanthe dioica*)
- *Vat* (*Ficus bengalensis*)
- *Udumbar* (*Ficus glomerata*)
- *Gudmar* (*Gymnema sylvestre*)
- *Asana* (*Pterocarpus marsupium*)
- *Shilajatit* (Purified bitumen)
- *Kumbha* (*Leucas cephalotes*)
- *Nimba* (*Azadirachta indica*)

Ghrita and Taila

- *Trikantakadya sneha* 5 to 10 ml/day
- *Dadimadhya ghrita* 5 to 10 ml/day
- *Shalmali ghrita* 5 to 10 ml/day
- *Dhanvantar ghrita* 5 to 10 ml/day
- *Triphala ghrita* 5 to 10 ml/day

Asava and Arista

- *Lodhrasav* 10 ml twice a day with lukewarm water
- *Madhvasav* 10 ml twice a day with lukewarm water
- *Devdarvadi arista* 10 ml twice a day with lukewarm water

Avaleha

- *Saraleha* 3 to 5 mg/day. This is useful for all types of Prameha
- *Gokshuradyavleha* 3 to 5 mg/day. This is useful in all types of Prameha
- *Udaka: Sarodaka, Kushodaka, Madhukodaka, Sidhu, Madhvika.*

Vati

- *Shilajatvadi Vati* 500mg twice a day with lukewarm water
- *Chandraprabhavati* 500mg twice a day with lukewarm water
- *Indravati* 500mg twice a day with lukewarm water
- *Gokshuradi Vati* 500 mg twice a day with lukewarm water
- *Arogyavardhini vati* 500 mg / day with lukewarm water

Ras

- *Vasant kusumakara Ras* 125 mg twice a day with *Madhu* (Honey)
- *Brihat vangeswara Ras* 125 mg twice a day with *godugdha* (cow milk)
- *Mehari Ras* 125 mg twice a day with *godugdha* (cow milk)
- *Mehmudgar Ras* 125 mg twice a day with *godugdha* (cow milk)
- *Suvarnamalini vasant Ras* 125 mg twice a day with *godugdha* (cow milk)
- *Apurvamalini vasant Ras* 125 mg twice a day with *godugdha* (cow milk)

Churna

- *Nyagrodadi churna* 5gm twice a day with lukewarm water
- *Eladi churna* 5gm twice a day with lukewarm water
- *Karkatbijadi churna* 5gm twice a day with lukewarm water
- *Triphala churna* 5gm twice a day with lukewarm water

Bhasma: *Trivanga bhasma* 100 mg twice a day

Kwatha

- *Phalatrikadi kwath* 20 ml twice a day with lukewarm water
- *Darvyadi kwath* 20 ml twice a day with lukewarm water
- *Vidangadi kwath* 20 ml twice a day with lukewarm water
- *Triphala kwath* 20 ml twice a day with lukewarm water

CONCLUSION

Madhumeha which is subtype of *Vaataj prameha* can be correlated with Diabetes mellitus. With appropriate use of *Ayurvedic* preventive measures such as *Dincharya*, *Ritucharya*, *Aharavidhi* and therapeutic measures it can be prevented. The reduction of sugar level is slow and progressive with continuous use of *Ayurvedic* drugs. They are safe because these drugs will not lead to hypoglycemic episodes. *Ayurveda* is boon for diabetic patients if handled by good *Ayurvedic* physician. In addition life style modification with adopting proper food habits, yoga & exercise have very important role in the management of Diabetes mellitus. The prolonged use of the above treatment procedure will not only generate the person free from Diabetes mellitus but protect to live a long life (*deergha jeevanam*), Healthy life (*sukhayu*) and will be useful to the society (*hitayu*).

REFERENCES

1. API Text book of medicine Munjal YP et.al.(Vol.1) published by The association of physician of India 9th edition 2012; page no 321.
2. Vagbhata pramehanidanam: Hari Sadashiva Shastri Paradakara. Astanga Hridaya, Reprint. Varanasi, India: Chaukhambha Sankrit Sansthan; 2006.p. 65.
3. API Text book of medicine Munjal YP et.al.(Vol.1) published by The association of physician of India 9th edition 2012; page no 323.
4. Sushruta, Prameha nidana chikitsitam. In: Dr Ambikadatta Shastri. Sushruta Samhita(Sushruta and Nagarjun), Reprint, Varanasi, India: Chaukhambha Sanskrit Sansthan; 2006; p.63.
5. Charaka chikitsa sthana M; By Agnivesha; Translated into English by Dr. Ram karan and Vaidya Bhagwan Das; Chaukamba Sanskrit Series, Varanasi & Krishnadas Academy; 2005; Page. no.269.
6. Sarangadhara Samhita: By Sarangadhara, Translated into English by Dr. K. R. Srikantha Murthy; Chaukamba oriental publisher & distributor, Varanasi; Krishnadas Academy; 1984; page no 92-99.
7. Ashtanga Hridayam: Chikitsa sthanam; Vagbhat Translated into English by Dr. K. R. Srikantha Murthy; Chaukambada oriental publisher & distributor, Varanasi; Krishnadas Academy; Section – 4; Chapter- 12; Page no 383-390.
8. Charaka samhita Agnivesh; English translation; Sharma P.V. (Vol. 1); Chaukhambha orientation Varanasi; Ninth edition 2005; Page.no.269.
9. Vagbhata, Pramehanidanam. In: Hari Sadashiva Shastri Chaukambha Surbharti Prakashana; 2010.p. 504.
10. Madhava Nidana Madhavkara; Vol.-2; (English translation): Singhal G.D. at. Al.; Chaukhambha Sanskrit pratishthan, Delhi; Page no. 581.
11. Bhavprakash of Bhavmishra, Prof. Murthy K.R. Shrikantha, (Vol.2) Krishnadas Academy, Varanasi, First edition 2000, Page no. 491.
12. Davidsons Clinical Medicine: Edited by John Macleod; 1984, Reprint- 1985, 1986; Chapter- 12- Endocrine and Metabolic Diseases; Page No.457-465; Diabetes Mellitus.
13. Sarangadhara Samhita: By Sarangadhara, Translated into English by Dr. K. R. Srikantha Murthy; Chaukamba oriental publisher & distributor, Varanasi; Krishnadas Academy; 1984; page no 92-99.

14. Agnivesha, In: Shri Kashinath Shastri and Gorakhnath Chaturvedi Charaka Samhita(Charaka and Dridhabala), Reprint, Varanasi India: Chaukhambha Bharti Acadamy; 2005; Page no. 352.
15. Charka samhita, Eng. Translation by R.K. Sharma and Bhagawan Dash, Chaukhamba Sanskrit Series office, Varanasi, 2009. Sutra Shthana. 17.
16. Sushruta Samhita Edited by Prof. P.V. Sharma, Chaukhamba Vishwabharti, Varanasi, Istedi., 2001. Chikitsa sthana-11.
17. The Principles and Practice of Kayachikitsa: Dr.S. Suresh babu; chaukhamba oriental publisher and distributer, Varanasi; Krishanadas Academy; 2007; Volume- III; Page no. 100-109; Endocrine diseases and Medicine.