EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Volume: 12
Issue: 7
Year: 2025

PRAMEHA PRATISHEDHA: AYURVEDIC STRATEGIES FOR PREVENTING AND MANAGING TYPE 2 DIABETES MELLITUS

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Article Received on 14/05/2025 **Article Revised on 04/06/2025** **Article Published on 24/06/2025**

ABSTRACT

Prameha, a group of urinary disorders described in Ayurvedic classics, closely resembles Type 2 Diabetes Mellitus (T2DM) in modern medical science. Characterized by excessive, turbid urination (*prabhuta mutrata*, *avila mutrata*) and metabolic disturbances, Prameha is primarily a *Tridoshaja Vyadhi* with *Kapha predominance*. Among its various forms, *Apathyanimittaja Prameha* aligns most closely with T2DM and is largely attributed to lifestyle and dietary indiscretions. The increasing global prevalence of T2DM, particularly in India, regarded as the "Diabetic Capital of the World", necessitates exploration of integrative and holistic approaches like Ayurveda for prevention and management. This review article explores Ayurvedic strategies for the prevention (*pratishedha*) and management (*chikitsa*) of Prameha, with a focus on individualized, stage-specific, and constitution-based therapy. The therapeutic approach varies depending on the type of Prameha (*Sahaja* vs *Apathyanimittaja*), the strength and constitution of the patient (*Krusha* vs *Sthula*), and the stage of disease progression.

The treatment protocol includes four essential components:

1. *Nidana Parivarjana* & *Pathya Ahara* and *Vihara* - elimination of causative factors and diet and lifestyle modifications
2. *Samshodhana Chikitsa* - purification therapies
3. *Samshamana Chikitsa* – palliative therapies
4. *Rasayana Chikitsa* - rejuvenation therapies

This paper also underscores the importance of patient education and long-term adherence to dietary and lifestyle changes for sustainable disease control. Ayurvedic classification of *Prameha* allows for a nuanced, tailored therapeutic approach that goes beyond symptomatic treatment to address the root causes and systemic imbalances involved in T2DM. The integration of Ayurvedic principles with modern diabetic care can enhance patient outcomes, reduce complications, and offer a cost-effective and holistic healthcare solution. In conclusion, Ayurvedic management of *Prameha* offers a multifaceted approach that targets the pathophysiology, lifestyle causes, and long-term consequences of Type 2 Diabetes. By combining detoxification, dietary regulation, herbal therapy, and rejuvenation, Ayurveda provides a preventive and curative pathway well-suited for the growing global diabetes burden.

INTRODUCTION

Chikitsa is defined as those measures which helps in maintaining dhatus in *samavastha* and ensure that *dhatu vaishamyata* does not prevail in *shareera*. To abstain from *nidanas* that give rise to *vishamata* and adopting such measures which promote *dhatu samyata* is the objective of *Chikitsa*.[1] The treatment of any disease including *Prameha*, aims at restoring the balance of *Doshas* and the normal functioning of *Dhatus*.

Prameha is a *tridoshaja vyadhi* characterized with *prabhuta mutra* and *avila mutrata*.[2] *Prameha* can be corelated with Diabetes mellitus explained in modern science. Diabetes mellitus is a clinical syndrome characterized by hyperglycemia due to absolute or relative deficiency of insulin. Type 2 Diabetes mellitus can be considered under the category of *Apathyanimmittaja Prameha* or *Sthula Prameha*.

WHO estimated that number of Diabetic patients in India are 19.4 million and would increase to 57.2 million in 2025 AD and the global prevalence of type II diabetes will be more than double from 135 million in 1995 to 300 million 2025. Presently it is estimated to affects about

150 – 200 million people Worldwide4. WHO estimates that India will have 79.9 million diabetics by 2030. A quarter of the income is devoted to diabetic care for a low-income Indian family that WHO said. Every fifth adult of the world is an Indian, for which India is consider as the Diabetic capital by International Diabetic Federation.[3]

This increased burden is demanding for exploration of newer innovative treatments which can effectively manage the disease and is also cost effective. Hence an attempt is made to formulate Ayurvedic treatment in different methods based on the information available from ayurvedic scriptures.

Three kinds of treatment modalities are explained in Ayurveda which are to be adopted in the management of Madhumeha. *Daivavyapashraya* or spiritual therapies including chanting of mantras, wearing gems, auspicious offerings, oblations, gifts, offerings to sacred fire, following spiritual rules, atonement, fasting, chanting of auspicious hymns, obeisance to gods, visit to holy places etc., to prevent *sahaja* Prameha which are *adibala pravrutta* and are said to be *asadhya*. *Satvavajaya* chikitsa is training the mind to withdraw from the harmful objects. In Madhumeha chikitsa treatment has to begin with avoiding the etiological factors and adopt *pathya ahara* and *vihara* as it is a *chirakari vyadhi*. There are many evidences about patient education and counselling proven to be very effective in improving patient's ability to cope with their disease and make informed decisions regarding management and lessen the complications of diabetes by motivating patients to change any harmful dietary and lifestyle habits. *Yuktivyapashraya chikitsa* includes proper dietic regimen, medicine planning etc., with due considerations to *rogi bala* and *roga bala*. Treatment based on *Dosha*, *Dushya* and *upadravas* can be planned using *yukti* of the Physician and manage the patient appropriately.

Prameha Chikitsa krama

Prameha is categorized into two by Acharyas as:
Sushruta – *Sahaja* and *Apathyanimittaja*, Charaka – *Sthula* and *Krusha*,
Vagbhata – *Dhatukshyaja* and *Margavaranajanya*,
Bhela – *Prakruti prabhava* and *Narasya swakrutastatha*.

1. *Sahaja = Krusha = Dhatukshyaja = Prakruti prabhava*

Causative factors in this category are one's one nature or born with oneself or congenital due to genetic or abnormality in physiology.

2. *Apathyanimittja = Sthula = Margavaranajanya = Narasya swakrutastatha*

Causative factors for this category are the activities of the person or self-inflicted like *santarpana nidana* as the major cause. Madhumeha is a type of *vataja meha* and is also synonymously used with Prameha as both *kaphaja meha* and *pittaja meha* if not treated properly, end up as Madhumeha.[4]

Management of Prameha should begin with assessing whether it is in *sadhya* or *asadhya avastha* as it is very clearly stated that *sadhya* Prameha *vyadhi* are to be treated with appropriate *samshodhana* and *samshamana chikitsa* on time.[5] *Jataja* or *kulaja meha* is said to be *asadhya* for treatment.[6]

Treatment principles to be adopted in Prameha are based on *rogi bala* and *akruti*, *nidana*, *roga avastha* and *Doshanusara*.

Based on the *rogi bala* Prameha patients are classified into two as *Krusha pramehi* and *Sthula pramehi.*[7]

Treatment for *Krusha pramehi*

Krusha pramehi are characterized with *lakshanas* such as *krusha* and *ruksha shareera*, *alpashi*, *pipasa*, *parisarana Sheela.*[8] They should be treated with nourishing therapies.[9] *Brumhana karya* has to be done by *aushadha*, *anna* and *pana* which are processed with *dravyas* which are *santarpaka* in nature but should not increase *medas* and *mutra.*[10] As these patients have reduced strength and *mamsa kshaya*, they are not fit for *shodhana* and hence to be treated with *shamana chikitsa.*[11] These patients are to be protected constantly without being exposed to much physical exertion.[12]

1. Treatment for *Sthula Pramehi*

Apathyanimittaja Prameha patients are characterized with *sthula shareera*, *bahuaashi*, *snigdha shareera yukta*, *shayyasana Swapna Sheela* and accustomed with *ahita ahara vihara*.

Rookshana therapies are to be administered for managing *Kaphaja* and *Pittaja* Prameha. Aggravated *kleda*, *medas* and *kapha* are responsible for Prameha. Hence in the beginning *apatarpana chikitsa* has to be planned after assessing these *hetu* properly.[13]

Santarpana janya Madhumeha should be treated by adopting *Samshodhana karma*, administration of *arishta*, *Kashaya*, *lehya* for *shamanartha* and resorting to *mamsa* of *mruga* and *dvija* which are spit-roasted and various *yava ahara*.[14]

Management of these patients can be done by adopting the following principles of *chikitsa*

A. *Nidana parivarjana* and *Pathya palana*,
B. *Samshodhana*,
C. *Samshamana* and
D. *Rasayana chikitsa*.

A. *Nidana parivarjana* and *Pathya palana*

Nidana parivarjana is the first line of treatment in any disease. According to Acharya Sushruta '*Sankshepataha Kriya Yogo Nidana Parivarjanam'* - the best and simplest form of the treatment is avoiding the causative factors, which are responsible for causation of disease and it is the primary step to prevent further pathogenesis. The understanding of *Nidana* helps a physician to

counsel the patient to keep away the factors, foods and activities which are contradictory to them. It will not only aid in framing a right treatment protocol, it will also help in designing a good diet and lifestyle protocol where in many disorders can be avoided while following the wholesome and good parts of life.

Acharya Charaka has mentioned that *vishama swasthavrutta* is the causative factor for all the diseases.[15] *Swasthavrutta* includes *ahara, vihara, achara* and *vichara* which are the part and parcel of lifestyle. Kashyapa has told the importance of *ahara* as there is no any medicine other than healthy food and hence *ahara* is considered as *Maha bheshaja*.[16]

As the birds are attracted towards the trees where their nests are situated, similarly Prameha is attracted to people who are gluttonous, who have an aversion to bathing or who does not do physical exercises. Death immediately comes in the form of Prameha to those who are very lethargic and morbidly obese.[17]

It is said that *ahara* and *vihara* which produces *shleshma, meda* and *mutra* are the prime causative factors for Prameha. *Ahara* which are *Swadu amla lavana rasa pradhana, ahara* which are *snigdha, guru, picchila* and *sheeta pradhana, nava dhanya, sura, anupa mamsa, ikshu vikaras, guda, gorasa* and *vihara* or *kriya* such as *shayya asana nidra alasya adhika*, desire for *ekasthana rati, vidhivarjita Swapna* such as *akala nidra, ati nidra, ratri jagarana* etc., are said to increase *kapha.*[18]

To prevent and get rid of Prameha an individual should follow *ahara* and *vihara* that brings his *doshas* and *dhatus* to a state of equilibrium so that he can lead a healthy life.[19]

Etiological factors of different types of Prameha should be avoided even after Prameha is manifested and also during treatment. Chakrapani opined that this avoidance of *nidana* in Prameha is of prime concern because this is *chirakari vyadhi* having long lasting impact on the body.[20] Acharya Sushruta has emphasized *utpatti hetum parihareth* in the context of *sthoulya* causing Prameha *pidaka* as *upadrava.*[21]

Only *nidana parivarjana* should not be the aim but *pathya palana* in terms of proper diet management and life style changes for healthy living also has to be adopted.

As Prameha is an *anushanghi vyadhi*, there are more chances of recurrence and hence utmost care should be taken to avoid this. As a small sparkle of fire flares up when it comes in contact with wind or wood and gets converted into huge flames of fire, similarly in a weak body in which previously a disease pathology had occurred and it has just recovered from the disease, whenever it gets chance, the disease may again relapse in the body. Hence for the better results of the medicines administered, *pathya* must be followed even after the disease symptoms are completely disappeared.

In Prameha, *Pathya* has an important role in all the *avasthas*. It helps in preventing the manifestation of the disease, prevents the progression of disease from *purvarupa* to further stages, adds more effect to the action of chikitsa and delays the *bheda avastha*.

Foods prepared predominantly from *yava* should be consumed and *Kapha pramehi* should use various *yava bhakshya* along with *Madhu*.[22] In Prameha *vyadhi* foods which does *medoghna, baddha mutra* and good to *dhatus* are to be adopted and hence *Yava* is considered to be the best as it possesses all these properties and hence Prameha patients should predominantly consume *yava* preparations.[23,24]

Shakha and *Phala* mentioned in different samhitas which are indicated in Prameha:
Shakha - Shobhanjana, kulaka, kathillaka, karkotaka, talaka, brihati phala, audumbara, lashuna, navina mocha, pattura, gokshura, mushika parni, mandara patra, amrita, triphala, kapittha phala, jambu, kasheru, kamala, utpala, kharjura, langalika, talataru uttamanga, trikatu, tinduka phala, khadira, kalinga. Tanduleeyaka, dhattura, Jeevanti, Shigru pallava, Amruta, dhatri, patola, vatsaka, madhu, audumbara phala, bala ama pakva kadali phala, rambhaprasunam, gaangeri, Zharasi, dunduka, kapittha, meshashrungi, mushkaka, kathaka, karavellaka, Akhukarni. Manduka parni, saptala, sunishannaka, suvarchala, pippali, guduchi, gojihwa, kakamachi, prapunnada, avalguja, sateena, bruhati, kantakari phala, patola, varthaka, karavellaka, katukika, kebuka, urubaka, parpataka, kiratatikta, karkotaka, arishta, koshataki, vetrakareera, atarushaka, arkapushpi
Phala: *karanja, kimshuka, arishta phala*[25]

B. *Shodhana upakrama*

Acharya Charaka has stated that *sthula pramehi* who is *balavan* and *bahu dosha yukta* has to be administered with *samshodhana chikitsa.*[26] Aggravated *kleda, medas* and *kapha* are the prime causitive factors for prameha and hence in *kaphaja* and *pittaja meha* patients are to be treated with *apatarpana chikitsa* such as *langhana, vyayama, shodhana* with *tikta katukadi dravyas.*[27] *Vamana* and *Langhana chikitsa* are indicated for *Kaphaja prameha* and *Virechana, santarpana* and *shamana* for *Pittja prameha.*[28]

- *Apathyanimittaja prameha* patients have excessive *abhishyandata* in their *shareera* due to accumulation of water which causes agnimandya because of this all the *pancha vidha ahara* like *bhakshya* etc., consumed by the patient gets converted only to *mutra* and *medas*. Hence the treatment should be aimed at enhancing *tejo dhatu* and to do *kleda meda prashamana* by adopting *shodhana karma* in *balavan purusha.*[29]

- Acharya Sushruta also recommends *Snehana karma* followed by *Vamana*, *Virechana* and *Asthapana basti.*[30]
- *Langhana, Vamana, Virechana, Udvartana, Shamana* and *Deepana* therapies are said to be *pathya* in prameha according to Bhaishajya rathnavali.

C. *Shamana upakrama*

In all types of *meha*, patients who are not suitable for *samshodhana chikitsa* are to be administered with *Shamana chikitsa. Shamana chikitsa* also helps to prevent the disease continuing for longer duration.[31,32]

- In *purvarupa avastha – ksheeri vruksha Kashaya* and *basta mutra pana*
- In conditions of daha – kanda kwatha siddha yavagu sweetened with ksheera, ikshurasa and madhu.[33]
- Asava, arishta, lehya or ayaskriti prepared with priyangu, nanta, yuthika, trayantika, lohitaka, ambashta, dadima, tvak, shaliparni, tunga, kesara, dhataki, bakula, shalmali, shriveshtaka and mocharasa or with shringataka, gilodya, mrunala, kasheruka, madhuka, aamra, jambu, asana, tinisha, kakubha, katvanga, rodhra, bhallataka, palasha, charmavruksha, girikarnika, sheetashiva, nichula, dadima, ajakarna, harivriksha, raajaadana, gopa, ghonta and vikankata mentioned in Ashtanga Hridaya.

D. *Rasayana Upakrama*

Guduchi, Amalaki, Aswagandha, mamajjaka etc, can be used as best *Rasayana dravyas* in Prameha to prevent further deterioration, prevent complications and maintain wellbeing. Various research work has proved the long-term safety and efficacy of these drugs. *Rasayana drugs* act at the level of *agni, srotas, rasa* and *apyayana* of all the *dhatus*.

Rasayana does specific functions like

a) beta cell rejuvenation - *mammjaka, meshashringi, latha karanja*,
b) *Ojo vardhaka – ashwagandha, guduchi, kapikachchu. Ojovardhaka dravyas* should perform their action by not increasing *kapha, meda* or *snigdha guna*.
c) Anti-oxidant – *pravala, muktha, abraka, yashada, amalaki*
d) abnormal insulin metabolic repair – *chandraprabha, arogyavardhini rasa, kutaki, pippali, indravaruni, swarna, haridra, bilva*
e) Improve tissue sensitivity to insulin – correct regulatory mechanism, conduction, receptors mechanism, adipocytokines conversion to fat cells, fat metabolism. Insulin resistance happens due to *pragnaparadha* where our own body is not identifying our own cells. In this condition we have to administer *medhya dravyas* which are *smritikara* and *pragnabodhi* in nature which recognizes that this is my body. *Jashada bhasma* or zinc attaches with 6 insulin molecules when insulin comes out of the cell so zinc is a necessary component for receptors to function normally.

Rasayana drugs improve insulin sensitivity, act as antioxidants, and help rejuvenate pancreatic function and *Ojas*.

DISCUSSION

According to Ayurveda, in a disease like *Meha*, treatment modalities that are selected should have three properties –

1. Reduce *nidana – Medohara*
2. Reduce signs and symptoms – *Baddha mutrascha*
3. ***Sama sarveshu Dhatushu* – maintain normalcy of all *dhatus***

Astanga Sangrahakara opines that Prameha is disease which involves *Abhishyanna deha* and *Upahatha agni*, hence the *ahara* taken in these patients gets converted into *Mootra* and *Medas* thus he states the use of *Chikitsa* which are able to increase the *Agni*.

In Ayurveda, *Nidana parivarjana* and *Pathya paripalana* has been given the utmost importance in preventing and managing diseases like Prameha which have the tendency to flare up with indulgence in etiological factors. Following *Pathya* helps in preventing the progression of the disease, reoccurrence of the symptoms and delay the complications. Identified risk group people should be advised with periodic *shodhana* and *Pathya paripalana* to prevent the manifestation of Madhumeha. Following proper dietic and lifestyle regimen prevents the doshas from reaching *prakopavastha*. There are many *shamana dravyas* explained in ayurveda which has hypoglycemic and anti-hyperglycemic action, thereby acts as *Pramehahara*. As Prameha is one among the *santarpanajanya vikaras*, *apatarpana* in the form *shodhana* helps in eliminating the accumulated doshas to a greater extent. As Prameha is a *chirakari vyadhi* which does *dhatu shithilata* and *ojo hrasa*, Rasayana *chikitsa* has to be adopted as *urjaskara chikitsa* in Prameha.

CONCLUSION

Various treatment options for type 2 Diabetes mellitus according to modern science include

1. Diet and Lifestyle modifications
2. Diet + Oral Hypoglycemic agents
3. Diet + Insulin
4. Diet + OHA + Insulin[34]

Treatment principles for the management of Prameha can also be formulated in a similar manner based on the *Avastha* of *vyadhi, rogi bala* and *roga bala*. Hence an attempt is made in this regard. The integrative approach of management is essential for preventing and managing a disease like Madhumeha.

Avasthanusara chikitsa in Meha is explained by Acharya Sushruta and has to be adopted in the following manner-

In *purva rupaavastha – Apatarpana* such as *upavasa, vatadi vanaspati Kashaya* and *Mahisha basta mutra* has to be administered. If not treated at this stage and if person resorts to *madhura ahara* further causes Prameha

with the presentation of *madhurata* in *mutra*, *sweda* and *shleshma*. At this stage patient should be administered with *ubhayataha shodhana* ie., *Vamana* and *Virechana*. At this stage if proper treatment is not done it further it further leads to aggravation of doshas causing *shopha* etc., *upadravas* for which specific treatment has to be adopted.[35]

As explained in Charaka Samhita, *Avaranajanya Madhumeha*e is caused due to excessive intake of *guru, snigdha, amla, lavana ahara, nava dhanya ahara, nava madya*, excessive sleep, sedentary habits, avoidance of exercise or thinking or devoid of worries and not doing *shodhana* at appropriate time cause aggravation of *kapha, pitta, mamsa* and *meda* which obstructs the *vata marga* leading to *margavarana*. Thus, provoked *vata* takes out *ojas* from its normal sites and brings it to *basti* causing Madhumeha and is difficult to treat.[36]

This can be treated in lines of *Apthyanimittaja* or *sthula* Madhumeha with *apatarpana chikitsa*. In *kaphaja* and *pittaja meha* aggravated *kleda, meda* and *kapha* are the causative factors. Hence *apatarpana chikitsa* has to be done carefully preventing the manifestation of *gulma* etc., diseases. Meha caused due to *santarpanottha karanas* can be treated by the *rukshana* therapy which are explained in the context of *medasvi* or *sthoulya chikitsa. Virookshana* helps in treating *kapha* and *pitta pradhana* Prameha. Prameha can be prevented or easily managed by resorting to different varieties of *vyayama, pragada udwartana, snana, jalavaseka, lepana* with *twak ela agaru Chandana* etc.

The measures which are *vipareeta* to *dosha, dushya* and *hetu* are to be applied properly with due consideration of *desha, kala, pramana, pathya* and *apathy.*[37]

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