

CONCEPT OF ETIOPATHOGENESIS OF MADHUMEHA AND ITS MANAGEMENT-A REVIEW

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ABSTRACT

Madhumeha (i.e. Diabetes Mellitus) is a huge burden of illness globally. Globally, an estimated 422 million adults are living with diabetes according to the latest 2016 data from the WHO and statistically India is now considered as the diabetic capital. In Ayurveda, this condition can be explained under Vatika Prameha. It is a disease known to mankind since Vedic period. It is one of the Astha Mahagadas. Madhumeha manifests due to complex interaction of three types of Doshas & ten types of Dushyas. Doshas like Kapha, Pitta and Vata & Dushyas like Meda, Rakta, Shukra, Ambu, Vasa, Lasika, Majja, Rasa, Oja, Lasika are responsible for the causation. In this the patient passes honey like sweet urine in excessive amount which is due to various physical and chemical changes of body tissues. The main causative factor is said to be sedentary lifestyle and sedentary food habits, which can be manage conservatively with correction of life style, regular practice of exercise, healthy diet and internal medication. The problem with diabetes is that its very difficult to diagnose in the early stages. However, a person stick to an Ayurvedic preventive strategy right from the beginning can easily prevent or control it. The Ayurvedic management of Madhumeha aims not only to achieve a good glycemic control but also to treat the root cause.

KEYWORDS: Madhumeha, Nidana Panchaka, Management.

INTRODUCTION

Madhumeha is one of the types of Vatika Prameha and is the last in the list of twenty types of Pramehas described by Charaka. In this disease, there are manifestation of metabolic abnormality as well as urinary tract pathology are included in two symptoms: Prabhuta Mutrata(Excessive urination) and Avila Mutrata(Urine turbidity). The excessive urination is due to osmotic diuresis which in turn is due to hyperglycemia. Avila mutrata may be of significance at a late stage.^[1]

Madhumeha is also a Maharoga, because it affects most vital organs of the human body and every cell of human physiology. The ancient Ayurvedic physicians described

not only the sweetness of urine as one of its major symptoms, but also relationship of the disease to the disturbance of the five sheaths of the body-

1. Annamaya Kosha(Food Sheath)
2. Pranamaya Kosha(Energy sheath)
3. Manomaya kosha(Mind Sheath)
4. Vijnanamaya kosha(Intellectual Sheath)
5. Anansamaya Kosha(Bliss Sheath)

Etymologically, all classical texts described prameha as derived from “mishschane” implying watering, meaning there by dilution of everything in the body, not only of urine.^[2]

NIDANA (ETIOLOGICAL FACTORS)- According to the particular features of etiology, Dosas and Dushyas response occurs in the form of non-manifestation or otherwise of the disorders.^[3]

Kaphaja Prameha Nidana	Pittaja Prameha Nidana	Vataja Prameha Nidana
Hayanaka, Yavaka	Ushna	Kashaya
Mukundaka, Chinaka	Amla	Katu
Uddalaka, Naishadha	Lavana	Tikta
Itkata, Mahavrihi	Kashaya	Ruksha
Pramodaka, Navanna	Katu	Laghu
Sarpishmatam, Navaharenu	Ajirna Bhojana	Sheeta

Kshira, Pishtanna Ahara, Gramya, Anupa, Audaka Mamsha Shaka, Navamadya Tila, Palala, Krishara Payaha, Masha Supya Ikshu Vikara, Vilepi Sleshma-meda-mutra-Drava vardhaka Ahara	Vishama Ahara	
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In all types of Prameha, Vata, Pitta and Kapha together form the causative Dosas, Medas (fat), Rakta (Blood), Shukra (Semen), Ambu (Body fluids), Vasa (Muscle fat), Lasika (Tissue fluid) Majja (marrow) Rasa (lymph), Ojas (essence of all dhatus) and Pisita (Muscle fibre) are the Dushya (affected tissue).^[4]

PATHOGENESIS (SAMPRAPTI)- Samprapti of Madhumeha is best described by Acharya Vagbhata. He said Madhumeha can originate in two ways-

1. By the aggravation of Vata caused by Dhatukshaya.
2. By the obstruction of Vata caused by Doshas covering it.

Madhumeha which is caused by Dhatukshaya manifests as thin and asthenic individual due to loss of Oja. All this is Ojakshaya meaning an imbalance in Ojus. In Margavaranjanya Madhumeha the vitiated Kapha and Meda obstruct the passage of Vata. The obstructed Vata is vitiated again and carries ojas to Basti thus manifests Madhumeha.^[5]

INVOLVEMENT OF OJUS IN PRAMEHA

Ojus is the essence of life, an extract of the semen Dhatus (Elements) represented as Bala (strength) of the body. The Ojus in a healthy person determines the physical, psychic, sensory and motor functions of the body. The biochemical component of the body is

reddish, white, slightly yellowish in color and is residing in the heart and other vital organs of the body. If ojus is disturbed, degeneration occurs and result, in decreased life span. In Prameha the ojus or life essence is expunged from the body through all Navadrawas, especially through urine and sweat.

Ojus gets imbalanced in Prameha in two ways-

1. Through obstruction in blood vessels (Srotorodha)
2. Through degeneration of the body component or Dhatu kshaya. This can cause both cardiac as well as disorders in the nervous system. All this is Ojakshaya meaning imbalance in Ojus.

CLASSIFICATION AND ITS SADHYASADHYATVA^[7]

A) ACCORDING TO AETIOLOGY

- 1) Sahaja (hereditary or chromosomal defects from parents)- Asadhya
- 2) Apathyanimitaja (improper dietetics and activities) – Yapya

B) ACCORDING TO PHYSICAL MANAGEMENT

- 1) Apatarpanjanya- karshyaprameha- (lean diabetic) - Yapya
- 2) Santarpanjanya-sthula prameha-(obese dietetic) – Sadhya

C) ACCORDING TO DOSHA

Types	Kaphaja Prameha (further divided into 10 types)	Pittaja Prameha (further divided into 6 types)	Vataja Prameha (further divided into 4 types)
Names	1) Udak meha 6) Shukra meha 2) Ikshuvalikarasa meha 7) Sita meha 3) Sandrameha 8) Sikata meha 4) Sandraprasad meha 9) Alala meha 5) Shukla meha 10) Shanair meha	1) Ksharmeha 2) Nilameha 3) Manjisthameha 4) Kalameha 5) Rakta meha 6) Lasikameha	1) Vasa Meha 2) Majja Meha 3) Hastimeha 4) Lasikameha
Sadhya-Asadhyata	They are sadhya (Curable) due to compatibility in principles of treatment	They are Yapya (manageable) due to incompatibilities in line of treatment	They are Asadhya (incurable) not only due to variety and antagonisity in the line of treatment but also severity in the complications.

PURVARUPA

Slight increase in quantity of urine associated with premonitory symptoms is known as patient of Prameha. OR complete appearance of premonitory symptoms or Half of the premonitory symptoms associated with excess urination is known as patient of Prameha.^[8] Sweating, foul smell in body, lackness in body, liking for comfort in lying, sitting and sleeping, smearing in heart,

eyes, tongue and ears, heaviness in body parts (overweight), excessive increase of hairs and nails, liking for cold, dryness in throate and palate, sweetness in mouth, burning sensation in hands and feet-these are the premonitory symptoms of Prameha. Apart from these, ants also rush towards the urine.^[9] Accumulation of dirt on the teeth (mouth, eyes, nose, ears), feeling of burning sensation in the palms and soles stickiness of the

skin all over the body, thirst and a sweet taste in the mouth.^[10] Increased quantity and turbidity of urine are the characteristic features. Due to the combination of Dosas and Dushyas, different colors are seen in the urine and Pramehas are classified depending upon the colour of the urine etc.^[11]

ROOPA

Increase or decrease of proportion in the combination of Dosas, Dhatus, Malas and Ahara are the main factors responsible for the development of various kinds of Prameha.

Cardinal features of Prameha are turbidity and increased frequency. Though the Dosas and dushyas are similar. Their combination being different. There occurs

differences in colour etc. of urine based on these, different varieties of Prameha described.^[12]

All varieties of Prameha, if not treated in time, will ultimately become Madhumeha which is incurable. In Madhumeha, the urine is like honey and it is of two kinds, viz, one due to vata Vriddhi caused by Dhatu kshaya and another by Vata vriddhi caused by obstruction of the channels of Vata by the other Dosas.^[13]

In case of obstruction of channels, the symptoms of Dosas appear sometimes mild and sometimes severe. Any variety of Prameha in which the urine is sweet like honey and the whole body is also sweet, it is to be named as Madhumeha itself.^[14]

CHARACTERISTIC FEATURES OF DIFFERENT TYPES OF PRAMEHA

Kaphaja Prameha^[15]

Se. No.	Type of Kaphaja Prameha	Specific Character of urine
1	Udakameha	Transparent, abundant, white, Cold, Odourless and water like urine
2	Ikshuvalikameha	Excessive sweet, Cold, slightly slimy, Turbid and like the juice of Sugarcane
3	Sandrameha	It gets concentrated with time
4	Sandraprasadmeha	Urine partly precipitates and partly clear
5	Shuklameha	Frequency of urine, flour like white in colour
6	Shukrameha	Semen mixed or like the colour of semen
7	Shitameha	Excessive sweet and cold
8	Siktameha	Small particles situated morbidly
9	Shannairmeha	Painfull and slow micturation without normal flow
10	Alalameha	Urine as bound with threads, saliva like and slimy

Pittaja Prameha^[16]

Se. No	Type of Pittaja Prameha	Specific Character of urine
1	Ksharmeha	Having smell, colour, taste and touch like alkalies
2	Kalameha	Black coloured like ink and hot
3	Neelameha	Acidic, coloured like feather of Neelkantha
4	Lohitameha	Fleshy smell, saline, hot and red
5	Manjishthameha	Excess, coloured like decoction of Manjishtha, fleshy like smell
6	Haridrameha	Yellow coloured like turmeric, pungent

Vataja Prameha^[17]

Se No	Type of Vataja Prameha	Specific Charecteristic of urine
1	Vasameha	Mixed with Vasa or like Vasa, frequency of micturation
2	Majjameha	Mixed with Majja
3	Hastimeha	Excessive and passes urine constantly like an elephant
4	Madhumeha	Excess, coloured like whitish, dry and sweet in taste

UPADRAVA

Pramehas, on chronicity, give rise to these complications-thirst, diarrhea, fever, burning sensation, debility, anorexia, indigestion, boils due to sloughing of muscles like alaji vidradhi etc.^[18] Indigestion, loss of appetite, vomiting, too much of sleep, cough and running in the nose are the complication during the course of Kaphaja prameha.^[19]

Pain in the urinary bladder and penis, cracks in the skin of the scrotum, fever, feeling of burning sensation, thirst, sour eructations, fainting and diarrhea are the complications of Pittaja Pramehas. In Vataja Pramehas, movement in upward direction inside the abdomen, tremors, desire for eatables of all tastes, pain, loss of sleep, emaciation, cough and increased breathing are the complications.^[20] Prameha associated with the above complications, with elimination of very large quantities

of urine and appearance of tubercles on the body are going to kill the patient.^[21]

MANAGEMENT OF PRAMEHA

According to Ayurveda the line of treatment of Prameha is strictly based on individual constitution and the following factors-

- 1) The Prakriti of the patient
- 2) Dosha predominance of the disease
- 3) Dooshya vitiation
- 4) Obstruction in srotas

In general type I DM (Vataja Prameha) patients are advised to have Brimhana medication as well as a diet which increases Dhatus in the body. In type II DM, obese diabetic patient with optimal body strength having intence increase of Doshas, purification of the body is advocated. This is dependent on Dosha predominance (Kaphaja is advised to have emetics, Pittaja to have purgation).

1. Snehanam(prescription of oils internally and externally)
2. Sodhana(purification therapy under three category)
 - a. Vamanam
 - b. Virechanam
 - c. Basti (This is indicated only in specific condition.
3. Shamanam
4. Pathya apathya
5. Vyayama(exercise)

Following preparation may be used judiciously in a patient of Prameha-Madhumeha for effective management-

1. Ghrita & Taila-Trikantaka Sneha, Dadimadhya Ghrita, Triphala Ghrita, Prameha mihir Taila.
2. Asava-Arista-Lodhra Asav, Madhya Asava, Dantya Asava, Devdarvadi Arista.
3. Leha(paste)-Salsaridi leha, Kusha Avleha, Vanga Avleha.
4. Udaka-Sarodaka, Kushodaka, Madhukodaka, Sidhu, Madhvika.
5. Vati(Tablet)-Trikatukadya Modaka, Shiva Gutika, Shilajatvadi Vati, Chandraprabha Vati, Indra Vati, Gokshuradi Vati, Arogyavardhini Vati.
6. Churna(powders)-Nyagrodadi Churna, Eladi Churna, Karkatbijadi Churna, Triphala Churna.
7. Rasa/Bhasma-Vasantakusumakr Rasa, Brihta Bangeshwar Rasa, Suvarna Banga, Apurvamalinivasant Rasa, Harishankar Rasa, Panchanana Rasa.
8. Kwatha(decoction)-Phala trikadi kwath, Darvyadi Kwath, Vidangadi Kwath, Triphaladi Kwath.

Some single plant drugs used in Madhumeha -

1. Amalaki(*Embllica officinalis*),
2. Vijaysar(*Pterocarpus marsupium*),
3. Bimbi(*Coccinia indica*)
4. Meshasringi(*Gymnema sylvestre*),
5. Jambu(*Syzygium cumini*),
6. Khadirasara(*Acacia catechu*)
7. Karavellaka(*Momordica charantia*),
8. Tejpattra (*Cinnamomum tamala*),
9. Katphala(*Myrica esculenta*)

10. Methica(*Trigonella foenum-graecum*),
11. Tvaka(*Cinnamomum zeylanicum*),
12. Kakamaci (*Solanum nigrum*)
13. Shilajit(Black bitumen),
14. Guduchi(*Tinospora cordifolia*),
15. Devadaru(*Cedrus deodara*)

Exercise- Hard exercise are prescribed for diabetics and obese persons. This is meant for proper utilization of the fat and consumes the glucose in the body. The methods can be changed in the present times according to the habitat(desha) and time(kala). But the exercises are very necessary. Some of the hard, productive exercises prescribed by Sushruta are as under-

1. Vyayama(exercise)
2. Niyuddha 9. flighting)
3. Kreedaa(games)
4. gajacharya, turgacharya, rathacharya, padacharya to ride an elephant, horse, cart riding and walking etc. Over and above mentioned heavy exercise, there are other exercise according to the financial position and also according to their community.^[22]

They are-

1. For poor class, the diabetic should walk about 100 miles, bare footed, not staying more then one night in the settle place, should eat only the things available by begging and keeping restraint on his sense organs(adopt the life style of Muni/Sage)
2. For rich diabetics-They should are only Shyamaka, Kodrava etc, Amalaka, Kapitha etc., and reside with the cattle(domestic animals). The food stuff for them should be Ruksha(free fromfat) or they may stay with the cows and eat the above with the urine and faeces of the cow campare this with the character in Raghuvamsha.^[23]

CONCLUSION

Madhumeha is a metabolic disorder and it is correlated with Diabetes Mellitus due to similarity of their etiopathogenesis and sign symptoms. Madhumeha is a result of over saturation, intake of heavy, sweet things and less physical activity. Modern theraprutics has many limitation but Ayurvedic principles of management can help the patient to have better blood sugar control. The basic line of treatment of Madhumeha is Nidana Parivarjana. In Ayurveda, Acharyas have described Dincharya, Ritucharya, Ahara, Vihara and Yoga, which have many more positive effects to prevent and to cure the Madhumeha.

REFERENCES

1. Dr.S.Suresh Babu, The Principles And Practice Of Kaya Chikitsa(Ayurvedas Internal Medicine) Volume-II, Chaukhambha Orientalia Varanasi, Reprint Edition 2015, page no-395.
2. Dr.S.Suresh Babu, The Principles And Practice Of Kaya Chikitsa(Ayurvedas Internal Medicine) Volume-II, Chaukhambha Orientalia Varanasi, Reprint Edition 2015, pn-396.
3. P.V.Sharma, Caraka Samhita Part 1, Nidana Sthana 4/3, Chaukhambha Orientalia, Varanasi, 9th Edition 2004, P.N-296.

4. P.V.Sharma, Caraka Samhita Part 2, Chikitsa Sthana 6/3, Chaukhambha Orientalia, Varanasi, 9th Edition 2004, P.N-296.
5. Sanju kumar, An Ayurvedic approach to diabetes mellitus- a review, IAMJ, Volume 4.Issue 3rd march 2016.
6. Dr. S.Suresh Babu, The Principles And Practice Of Kaya Chikitsa(Ayurvedas Internal Medicine) Volume-II, Chaukhambha Orientalia Varanasi, Reprint Edition 2015, pn-397.
7. Sanju kumar, An Ayurvedic approach to diabetes mellitus- a review, IAMJ, Volume 4. Issue 3rd march 2016.
8. Proffesor K.R.Srikantha Murthy, Sushruta Samhita Volume 1, Nidana Sthana 6/22-23, Chaukhambha Orientaalia, Varanasi 9.
9. P.V.Sharma, Caraka Samhita Part 2, Chikitsa Sthana 6/12,13,14, Chaukhambha Orientalia, Varanasi, 9th Edition 2004.
10. Professor K.R.Srikantha Murthy, Madhava Nidanam part 1, Prameha Pidika Nidanam 33/5-6, Chaukhambha Orientalia, Varanasi, P.N. 117.
11. Professor K.R.Srikantha Murthy, Madhava Nidanam part 1, Prameha Pidika Nidanam 33/6, Chaukhambha Orientalia, Varanasi, P.N. 117—astang hridaya nidan.
12. Proffesor K.R.Srikantha Murthy, Sushruta Samhita Volume 1, Nidana Sthana 6/26, Chaukhambha Orientaalia, Varanasi.
13. Proffesor K.R.Srikantha Murthy, Sushruta Samhita Volume 1, Nidana Sthana 6/2, Chaukhambha Orientaalia, Varanasi.
14. Professor K.R.Srikantha Murthy, Madhava Nidanam part 1, Prameha Pidika Nidanam 33/25,26, Chaukhambha Orientalia, Varanasi, P.N. 119.
15. P.V.Sharma, Caraka Samhita Part 1, Nidana Sthana 4/13, 14, 15, 16, 18, 19, 20, 21, 22, Chaukhambha Orientalia, Varanasi, 9th Edition 2004.
16. P.V.Sharma, Caraka Samhita Part 1, Nidana Sthana 4/29,30,31,32,33,34,35, Chaukhambha Orientalia, Varanasi, 9th Edition 2004.
17. P.V.Sharma, Caraka Samhita Part 1, Nidana Sthana 4/36,37,38,39, Chaukhambha Orientalia, Varanasi, 9th Edition 2004.
18. P.V.Sharma, Caraka Samhita Part 1, Nidana Sthana 4/48, Chaukhambha Orientalia, Varanasi, 9th Edition 2004.
19. P.V.Sharma, Caraka Samhita Part 1, Nidana Sthana 4/48, Chaukhambha Orientalia, Varanasi, 9th Edition 2004.
20. Professor K.R.Srikantha Murthy, Madhava Nidanam part 1, Prameha Pidika Nidanam 33/18, Chaukhambha Orientalia, Varanasi, P.N. 118.
21. Professor K.R.Srikantha Murthy, Madhava Nidanam part 1, Prameha Pidika Nidanam 33/19-20, Chaukhambha Orientalia, Varanasi, P.N. 118,119.
22. Proffesor K.R.Srikantha Murthy, Sushruta Samhita Volume 1, Sutra Sthana 33, Chaukhambha Orientaalia, Varanasi.
23. Harshmohan, Textbook of pathology, 5th Edition, Jaypee publication.
24. Harshmohan, Textbook of pathology, 5th Edition, Jaypee publication.
25. Professor Ajay Kumar Sharma, Kaya Chikitsa, Part-III, Chaukhambha Orientalia Delhi, Edition, 2011.