

THE LITERATURE REVIEW OF PRAMEHA

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ABSTRACT

Diabetes Mellitus is a complex metabolic syndrome characterized by involvement of multiple body systems. Faulty dietary habits, sedentary life style and stressful conditions may lead to various metabolic disorders and diabetes is one of them. Prevalence of Diabetes is increasing day by day throughout the world where India leads the highest numbers. Diabetes is the fourth leading cause of global death by disease. Type-2 DM is responsible for approximately 90% of cases. The disease, in which the formation of urine and frequency of urine is more, is called as prameha. Acharya Charaka has mentioned prameha /madhumeha under Maharog (major disease) as important body tissues (Dhatus) are vitiated. All Doshas and Dushyas are invariably vitiated in all types of Prameha. Only those which are vitiated in excess are specifically and separately described in a particular type of prameha. In Ayurveda clinical features, etiopathogenesis and prognosis of Madhumeha resembles with that of Diabetes mellitus. This literature review work is an attempt to compile and present Prameha in systematic manner. **Materials and methods** – References have been collected and relevant matter is compiled from available literature. Available commentaries of present era are also reviewed. All compiled matter is reorganized and critically analysed for the discussion and an attempt has been made to draw some fruitful conclusion. For this purpose right from definition, classification, pathogenesis clinical features have been taken into account from all the literature in Ayurveda. **Conclusion** – The rich literature of Madhumeha described in Ayurvedic classics still remains a tremendous scope of research in the field of diabetes mellitus.

KEYWORDS: Prameha, Literature review, Madhumeha, Charaka, Sushruta, Vagbhat.

INTRODUCTION

Diabetes is one of the most common non communicable disease. The prevalence of diabetes is increasing day by day. Diabetes is a group of metabolic etiology characterized by chronic hyperglycemia with disturbances of carbohydrates, fats & protein metabolism resulting from impaired insulin secretion, insulin resistance and excessive hepatic glucose production^[1] Type-2 diabetes is more common and present about 90% of all diabetic cases. According to WHO by the year 2030 India would have 80 million diabetic patients and would contribute 20% of world's diabetic population. All India Institute of Medical Science, New Delhi also showed that the prevalence of Diabetes cases was 8% & new diabetes cases were 3.8%, Males have showed a similar prevalence of diabetes (12%) as Females (11.17%)^[2] In south east Asia, 69 million population were suffering from diabetes in 2010 & 101 million

population will suffer up to 2030.^[3] Irregular diet habits, sedentary life style and stressful conditions may lead to various disorders and diabetes mellitus is one of them. In Ayurveda clinical features, etiopathogenesis, and prognosis of madhumeha resembles with that of diabetes mellitus. Food that leads to vitiation of Kapha, Meda (body fats) & Mutra (urine output) are chief etiological factors for Prameha which shows symptoms like prabhutavilmutrata (Polyuria).^[5] There is Kapha predominance^[4] with Pitta & Vata vitiation and Meda, Mamsa, Kleda, Shonita, Shukra, Vasa, Lasika, Majja, Rasa, oja dushti.^[6]

Charaka has described prameha/madhumeha in the chapters of sootrasthana 17th, nidanasthana 4th and chikitsasthana 6th. Sushruta describes madhumeha as kshaudrameha in nidanasthana 6th, and chikitsasthana 11th, 12th and 13th. An exclusive chapter on madhumeha chikitsa is found in Sushruta Samhita only. In

Ashtangasamgraha of Vriddha, Vagbhat stated the descriptions of madhumeha are found in nidanasthana 10th, and chikitsasthana 14th. Vagbhat in Ashtangahridayam has described about madhumeha in nidanasthana 10th and chikitsasthana 12th chapters. Symptoms of a pramehi child has been described in Kashyap Samhita sootrasthana Vedanadhyaya. Madhavakara has described prameha as the 33rd chapter just after Medoroganidanam while, in Siddhantanidanam of Kaviraj Gananath Sen, prameha is described in the 9th chapter.

AIM AND OBJECT

To study prameh from Ayurvedic literature.

MATERIALS AND METHODS

References have been collected and relevant matter is compiled from available literature. Available commentaries from present era are also reviewed. All compiled matter is reorganized and critically analysed for the discussion and attempt has been made to draw some conclusion.

Etymology of Prameha

प्र (उपसर्ग) + मिह क्षरणे (धातु) + घञ् (प्रत्यय) – शब्दकल्पद्रुम

The word 'Prameha' consists of two sub words i.e. 'Pra' & 'Meha'. The word Meha is derived from the root 'Mih Sechne' by adding pratyana to it 'Mehati' sinchatin Mutraretansi" which means to excrete 'Prameha'. 'Pra' meaning excess in both frequency and quantity, so the word Prameha means increase in both frequency and quantity of urine.

1. प्रमेह – प्र + मिह – मेहति मूत्रयति इति अर्थ । सु.नि. ६/१०(डल्हण)^(१)
2. प्रकर्षेण मेहति इति प्रमेहः । च.नि. ४/३
3. प्रकर्षेण मेहति यस्मिन् रोगे स प्रमेहः ।
4. प्रकर्षेण प्रचुरं वारंवारं वा मेहति यो रोगे स प्रमेहः ।
5. सामान्यं लक्षणं तेषां प्रभूताविलमुत्रता...॥ अ.ह.नि. १०/ ७

In regard to above explanation we can easily postulate that the disease Prameha is resulted because of excessive diminution or excretion of something (Atipravrttija). Prameha is a general term used for urinary disorders. In Ayurveda, it has got two derivatives one is Increased frequency of micturition is known as Prameha. Second is Prameha is a condition in which turbidity of urine exists.

Etymology of Madhumeha

The word Madhumeha consists of two words. 1) Madhu 2) Meha The word 'Madhu' is derived from the root "Manyante Viseshena Jananti Jana Yasmin." In Sanskrit literature, Madhu word is used in various contexts like Pushpa Rasa, Makarandah, Madhura Rasa etc.

1. मधुमेह – मधु + मिह
2. मधु इव मेहति

३. यस्मात् कारणात् मधु इव मेहति सदृशं मेहति अस्मात् कारणात् मधुमेह संज्ञा ।... आढमल्ल टीका वा.नि. १०/२१

४. मधुरं यच्च मेहेषु प्रायो मध्विव मेहति ।

सर्वेऽपि मधुमेहाख्या माधुर्याच्च तनोरतः ॥ मा.नि. ३३/ २६

So, it can be defined, that the disease in which the excretion is having quality concordant with Madhu (Honey) in its colour taste, smell and consistency called Madhumeha.

Definition of Prameha

“प्रकर्षेण प्रभूतं प्रचुरं वारंवारं वा मेहति मूत्रत्यागं करोति यस्मिन् रोगे स प्रमेहः ॥ ” मा.नि.३३/०१

“सामान्यं लक्षणं तेषां प्रभूताविलमुत्रता

दोषदूष्यविशेषे अपि तत्संयोग विशेषतः मूत्रवर्णादिभेदेन भेदो मेहेषु कल्प्यते ॥” वा.नि.१०/७

Passing frequently an abnormally turbid urine in large quantities is called Prameha. Mootra in Prameha can be prabhoota or avila or both. Ancient authorities have applied the term Prameha to all varieties of Meha and especially to Madhumeha. Tattvadarshini commentary on SiddhantaNidana states that the term Prameha is used in two senses viz. Samanya and Vishesha.

Definition of Madhumeha

Madhumeha is a clinical entity in which patient passes large quantity of urine similar to madhu having kashaya and Madhura taste, Ruksha texture and honey like colour and thus body attains sweetness.

१. मधुमेही मधुसर्म.....॥ अ.ह.नि. १०/ १८

२. कषायमधुरं पाण्डु रुक्षं मेहति यो नरः ।

वातकोपादसाध्यं तं प्रतीयान्मधुमेहिनम् ॥ च.नि. ४/४४

३. सर्व एवं प्रमेहास्तु कालेनाप्रतिकुर्वतः ।

मधुमेहचचनयन्ति तदा जसाध्या भवन्ति हि ॥ सु.नि. ६/२७

Acharya sushruta has narrated the term Kshaudra meha in place of madhumeha. Kshaudra is nothing but variety of madhu (Honey), which is Kapila in colour. So it is clear that Kshaudrameha resembles with madhumeha. Further, he asserted that when all pramehas are ill-treated or neglected leads to madhumeha and especially he emphasized that the disease prameha along with pidaka should termed as madhumeha.

Classical Synonyms of Madhumeha: Following synonyms are mentioned for madhumeha in the ancient classics.

1. Ojomeha

Ojomeha is enumerated as a subtype of vataja prameha amongst the four Acharya's, Charaka has mentioned that the vitiated vata changes sweet taste of oja into Kashaya resulting in ojomeha. (Ch.Su.17/80).

2. Kshaudrameha

This synonym has been narrated by Acharya sushruta because of its close resemblance with madhu. (Su.Ni.6/12).

3. Paushpameha

In Anjana Nidana, the word Paushpameha has been narrated. Paushpa rasa means madhu.

Above all synonyms postulates unanimously that all our Acharya have mentioned the urine concordant with madhu.

Classification of Prameha

In Ayurveda Prameha is classified as described below: Etiological Factors (Nidan) Pathological process involved in the disease .Samhanana (Bodyconstitution) Bala (Physical strength) Sadhyasadyata (prognosis) Dosha (clinico-pathological classification)

Etiological factors (Nidan)

१. “द्वौ प्रमेहौ भवतः सहजोऽपथ्यनिमित्तश्च ॥” सु.नि.११/३
२. “स्थूलप्रमेही बलवानिहैकः क्रुशस्तैकः परिदुर्बलश्च ॥” च.चि.६/१५

Based on nidana (etiological factors) Prameha are classified in the following aspect. Sahaj and Apathyanimmitaj^[8] and Santarpan nimmitaj and Apatarpannimmitaj.

Sahaj Prameha: Krusha (Asthenic)

Ayurvedic Samhitas state that sahaja Prameha occurs due to beejadushti (defect in beej i.e.in sperm / ovum) or defect in bijavayava (in chromosome).Charakacharya stated that Prameha is Kulaja vikar and Jata Prameha is incurable. (Ch.Chi. 6/57)

Apathyanimmitaj Prameha: Sthula (Obese)

Disease occurs due after birth and environmental factors, stress sedentary life style, food and dietetic indiscretions are responsible for the disease.The symptoms are Bahuashi (consumes excessive food) Snigdha (unctuous bodytexture) Bhrisha Pipasa (excessivethirst) Shayya asan,swapnasheela (like to sit down and sleep always)Kashyapa has also narrated symptoms like Gaurava (Heaviness in the body) Baddhata (tightness) and jadata (Steadiness, laziness).

Santarpana nimmitaj: (Ch.chi.6/55)

Santarpana means eating the food until the one fulfilled his hunger. The variant occurs due indulgence of heavy food, sedentary life style relived of tensions and worries. It is quite similar to that of the apathya nimmitaj Madhumeha.

Apatarpana nimmittaj: (Ch.chi.6/55)

Apatarpana means eating less and deviation in daily regimen (apathya vihar) that declines the doshas and increase vata. The vitiated vata leads to the disease.

Pathological process involved in thedisease

“ मधुमेहो मधुसमं जायते स किल द्विधा ।

क्रुद्धे धातुक्षयाद्वायौ दोषाव्रुत्तपथे अथवा ॥” वा.नि.१०/१९

Avaranjanya and Dhatuapakarsanjanya

This type of classification mainly related with etiology and pathophysiology. In this, Avaranjanya pathogenesis occurs due to etiological factors mainly concordant with Kapha and Pitta but the vitiation of vata occurs due to avaran. Dhatuapakarsanjanya pathology occurs due to depletion of dhatus because of the vata vitiated etiological factors. (Ch.Su.17/78, Ah.Ni. 10/18)

Samhanana (body constitution): (Ch.Chi.6/15)

Based on samhanana (body constitution) disease is classified into following type: Krusha and Sthula.

Bala (physicalstrength): Daurbal and Balwana

Importance in knowing this classification helps in management of disease.

Sadhyasadyata (Prognosis): (Ch.Chi.6/7)

Based on prognosis, disease can classified in to three groups, characteristic are described in the table below. Classification is based on various parameters; these parameters are narrated in the table along with classification. Kaphaj prameh are Sadhya. Pittaj prameh are Yapya. Vataj prameh are Vataj.

Doshaja (Clinico-pathologicalclassification)

(च.नि.४, सु.नि.६, वा.नि.१०, मा.नि.३३)

Twenty types of Prameha have been described by the different authors of Ayurvedic classics. Among these, 10 are of kaphaja type, 6 are of pittaja type and 4 belong to vataj prameha.

Nidana Panchak of Prameha / Madhumeha

Nidana Panchaka is the five parameters which are used in the diagnosis of a disease. Vyadhi Vinischaya can occur either by one Nidana or by two Nidana or by whole.

These five parameters are, Nidana(Etiology) Purvarupa (Premonitorysymptoms) Rupa (Symptoms &Signs) Upashaya /Anupashay, Samprapti(Pathogenesis)

Nidan (Etiology):

निदानं तु आदिकारणम् । मधुकोश

Knowledge of etiological factor and their role in pathology is very much necessary to find out the constituents like dosha, dushya, mala, progression of the disease & their role in diagnosis & prognosis.All ancient treaties mentioned the common etiological factors of prameha but Charaka mainly narrated the specific etiological factors according to dosha he also mentioned the specific etiological factors of madhumeha. This is the unique contribution of Charaka. According to Acharya

Charaka, this disease is tridoshaja in origin. Etiological factors can be classified into sahaja and Apathyanimittaja.

द्वौ प्रमेहौ भवतः सहजोऽपथ्यनिमित्तश्च ।
तत्र सहजो मातृपितृबीजदोषकृतः अहिताहारजोऽपथ्यनिमित्तः ॥
सु.चि. ११/३

Sahaja (Hereditary): (Ch.Sha.4/30), (Su.Chi.11/3)

Due to certain defects in stri & pumbeeja (Ovum & sperm) which is said to be Matru-Pitrubeejadoshakrita will result in sahaja prameha. Regarding beeja dosha, it may have its origin from parents of both father and mother i.e. it may be inherited from generation to generation and thus it is an unique example of hereditary disease. Acharya charaka narrated that sahaja type of diseases can occur due to defect in Beeja, Beejabhaga or Beejabhagavayava which can be correlated to ovum & sperm, to chromosomes & to genes respectively. Acharya Charaka has mentioned that excessive indulgence of madhura rasa by parents is the chief cause of changes & damages in the (Sperm Beeja and Ovum) over indulgence of madhura rasa by mother during pregnancy is likely to induceprameha.

Thus genetical predisposition and the over indulgence of etiological factors at the time of pregnancy by mother helps to precipitate the disease madhumeha, but the important thing is genetic predisposition.

Apathyanimittaja (Acquired): (Su.Chi.11/3)

Disease occurs after birth and environmental factors, stress, sedentary life style, food and dietetic indiscretions are responsible for the disease. When we go through all etiological factors we can highlight the following points.

SamanyaNidan

आस्यसुखंस्वप्नसुखं दधीनिग्राम्यौदकानूपरसाः पयांसि ।
नवान्नपानं गुडवैकृतं च प्रमेहहेतुः कफकृच्चसर्वम् ॥ च.चि. ६/४

All the etiological factors having qualities like Snigdha, Sheeta, Guru, Picchila and Shlakshna, Mand, Sandra. All the etiological factors mainly cause excessive burden over digestion (Agni) & form Aparipakvadhatus. All the etiological factors cause deposition of excess & unwanted matter in the body i.e. excess of vitiated meda, kleda, lasikaetc.

VisheshNidan

The factors that are responsible for the specific type are mentioned below.

Kaphaja Prameha Nidana[Ch.Ni.4/5]

The following etiological factors help in the immediate manifestation of *prameha* due *tokapha*.

Aahar

Frequent and excessive intake of fresh corns like Hayanak, Yavaka, Chinaka, Uddalaka, Naishdha,

Mukundak, Mahavrihi, PramodakaandSugandhaka. Intake of pulses like fresh Harenu and Masha withghee. Intake of the meat of domestic, marshy and aquatic animals. Intake of Shaka, tila, palala, pishtanna, payasa [a type of milk preparation], Krishara, Vilepi andIkshuvikara. Intake of milk, fresh wine, immature curd & curd which are mostly liquid, Sheeta & TarunaDravya.

Vihara

Physicalexercise. Indulgence in sleep, bed rest and sedentary habits. Restoring to even such regimens which produce more of kapha, meda and mutra.

Manasika Bhava

Tyakta chinta. (Avoidance of thinking or worry)

Pittaja Prameha Nidana: (Ch.Ni. 4 /24)

Ahara

Intake of ushna, Amla, Lavana, Kshara and Katu rasadravyas. Intake of food before the digestion of the previousmeal.

Vihar: Exposure to excessively hot sun, heat of the fire, physical exertion. Intake of mutually contradictory foodarticles

Manasika Bhava: Krodha(Anger)

Vataja Prameha Nidana:(Cha.Ni.4/36)

Ahara: Excessive intake of Dravyas having predominantly Kashaya, Katu, Tikta-rasa, Ruksha, Laghu-guna andSheeta-Veerya.

Vihara: Excessive indulgence in sex and physicalexercise. Excessive administration of Emesis, Purgations, Asthapan and Shirovirechana. Resorting to suppression of the manifested urges, Ati langhan, Excessive blood letting, keeping awake at right and irregular posture of thebody.

Manasika Bhava: Shoka Anxiety, Grief.

Specific Nidana of Madhumeha: (Ch.Su. 17/78-79)

Excessive intake of: Guru, Snigdha, Amla, Lavana ahara andNavannapana. Excessive indulgence in Nidra AsyasukhTyakta Vyayama Chinta, Sanshodhana Akurvatom. According to Sushruta, if Prameha (Kaphaja and pittaja), are not treated efficiently in their earlier stages they progress to cause Madhumeha which is an incurable condition.(Su.Ni.6/30).

Vagbhat narrates that, “Dhatukshaya” i.e. depletion of dhatu causes Vataprakopa in a Pramehi and gives rise to Madhumeha. Therefore, all Dhatukshaya causing factors can be considered as a cause of Madhumeha in a known case of Prameha. Other important cause of elicited by Vagbhat of Madhumeha is “Doshavruttatwa”. This happens due to the aggravated Kapha and Pitta dosha

that cause occlusion of normally functioning pathway of Vata to lead ultimately to its aggravation. This aggravated Vayu also contributes to the occurrence of Madhumeha in a patient already suffering from Prameha. (Va.Ni.10/19)

Purvarupa : (च.नि.४/४७, सु.नि.६/५, वा.नि.१०/३९, मा.नि.३३/५)

संक्षेपस्तु लक्षणं भाविव्याधिप्रबोधकमेव लिङ्गं पुर्वरूपम् इति । मधुकोश

“प्रागुपं येन लक्ष्यते । उत्पितसुरामयो दोषविशेषनाधिष्ठितः ॥ वा.नि.१/३-४

The complaints which appear before real manifestation of the disease are known as ‘Purvarupa’ (Ch.Ni.1/8) Purvarupa are valuable signs & symptoms to predict the disease & for timely management. As a matter of fact, purvarupa are produced at the stage of sthana samshraya & it is a kind of caution to the person to stop the consumption of etiological factors of the disease.

दन्तादीनां मलाढ्यत्वं प्रागुपं पाणिपादयोः ।

दाहश्चिक्कणता देह तृट् स्वाद्वास्यंच जायते ॥ मा.नि. ३३/५

“तेषां तु पूर्वरूपाणि –हस्तपादतलदाहः स्निग्धपिच्छिलगुरुताग्राणां मधुरशुक्लमूत्रता तन्द्रा सादः

पिपासा दुर्गन्धश्च श्वासस्तालुगलजिह्वादन्तेषु मलोत्पत्तिर्जटिलीभावः केशानां वृद्धिश्च नखानां ॥” सु.नि.६/५

Roopa

Rupa are the symptoms which is produced on manifestation of disease. In case of Prameha premonitory signs for all type of Prameha have been described in general but for a particular Prameha a particular urine character has been described. Various description of rupa for Prameha can be divided as follows. Pratyatma lakshana (Invariable features) of Prameha. Rupa on the basis of premonitory signs. Rupa of different Prameha. Specific symptomatology of Madhumeha.

Pratyatma lakshana (Invariable features) of Prameha

Pratyatma lakshana of a disease are the sign and symptoms which have samvaya sambandha with the disease i.e. disease and that symptom must co-exist at the same time in the body. The Pratyatma lakshana of Prameha are

तत्राविलप्रभूतमूत्रलक्षणाः सर्व एव प्रमेहाः ॥ सु.नि. ६/६

सामान्यं लक्षणं तेषां प्रभूताविलमूत्रता....॥ वा.नि.१०/७

Prabhutamutrata:^[9]

Passing of urine in excessive quantity, this cardinal sign described by all acharyas Astang Hridya described disease as Mutra Atipravrutija i.e.- Patient excretes Urine profuse in quantity.

इति विस्तरतः प्रोक्ता रोगा मुत्रप्रवृत्तिजाः ।

निदानलक्षणैरुर्ध्वं वक्ष्यन्तेऽतिप्रवृत्तिजाः ॥ अ.ह.नि. ९/४०

Gayadasa believed that the excessive Urinary output is

due to liquification of the Dushyas and amalgamation of Doshand Dushya.

Avilamutrata: (Su. Ni. 6/6)^[9]

Patient voids urine having hazy consistency or having turbidity. In general this turbidity is a result of bahu-abaddha Meda and other dushyas involved in the pathogenesis of disease. Characteristic change of the urine is due to Vikruti Vishama samveta of Dushyas like between Mutra, Dushya and Doshā – opined by – Gayadasa and Dalhana, whereas Astang sangraha suggested that Avilatva of mutra is due to annexation of mutra with the Dushyas and Doshas.

Ayurvedic Symptomatology of Madhumeha

“मधुमेहो यच्च मेहेषु प्रायो माध्विव मेहति ।

सर्वे अपि मधुमेहाख्या माधुर्याश्चतनोरतः ॥ ” मा.नि.३३/२६

“क्षौद्रसवर्णः क्षौद्रमेही ” सु.नि.६/१२

“मधुमेहो मधुसमं जायते ” वा.नि.१०/१८

“कषाय मधुरं पाण्डुरुक्षं मेहति यो नरः “च.नि.४/४४

“स चापि गमनत् स्थानं स्थानादासदमिच्छन्ति ।

आसनाद् वृणुते शय्यां शयनात् स्वप्नमिच्छन्ति ॥”सु.नि.६/२८

Samprapti

Samanya Samprapti: (Ch. Chi.6/5-6)

All the three doshas get vitiated due to Hetu sevana (i.e. consumption of all foods stated in Nidan part). These hetus also interrupt the functions of Dhatus and srotasas. When these three factors viz. Vitiated doshas, Dushayas, and Hetu gets intermixed, and the dominancy of Kapha is created. The vitiated doshas (predominantly kapha) gets spreads in whole body promptly, resulting in Sharirshaithilya. Due its spread all body elements which are having similar properties that of Kapha, get excessive liquification. These elements are Mamsa, Meda, Vasa, Lasika, etc. (I.e. Soft tissue and liquid form Dhatus). This liquified material is termed as “Kleda”. As the Kleda is mala (waste) part of tissues, it get eliminated through urine. The collection and formation of excessive Kleda, increases the workload to this excretory system of it.

Madhumeha Samprapti

“सम्प्राप्तिः पुनरेवंदुष्टो दोषस्तेन चैवमारब्धो । ” अ.सं.नि.१/११

The process of manifestation of the disease by morbid dosha which are circulating all over the body is known as Samprapti (Va. Ni.1/8) In modern medical science, it is called as pathogenesis. Samprati of a disease explains how the dosha are vitiated, how they travel in the body, how they affect the tissues and how the disease is produced.

“बहुद्रवः श्लेष्मा दोषविशेष इति, बहुद्रव एव वाको मेहजनक नान्यद्रवः ।” च.नि.४/६

“ बहबद्धं मेदो मासं शरीरजं क्लेदं शुक्रं शोणितः वसा मज्जाः रसश्रौजः संख्यात इति

–अबद्धमिति असंहतं व्याख्यायेयम्” च.नि.४/७ (योगिन्द्रनाथ सेन)

“कफः सपित्तः पवनश्च दोषाः मेदोअस्रशुक्राम्बुवसालसिका मज्जाः रसौजः पिशितं प्रमेहिणा विंशतिरेवमेहाः।” मा.नि.३३/४

Acharya Charaka has given detailed description about the pathogenesis of Madhumeha. Accordingly, the disease is caused due to vitiation of all three dosha. The Kapha is predominantly present in all the twenty types of Prameha. Chakrapanidatta, Sushruta and Vagbhat have agreed with the above description of Charaka. Bahvabaddhamedas means fat that has lost its characteristic viscosity. The muscle fat can be compared with it. Acharya Yogindranath Sen has explained that the non-compactness of fat takes place in this disease. Mamsa, Kleda, Shukra, Shonita, Vasa, Majja, Lasika, Rasa. Ojas are affected in this disease. These components together may be called as “Dasha-dooshyā” of prameha. (c.É.Íc.É.6/8)

“स प्रकुपिस्तथाविधे शरीरे.....मूत्राशये अभिवहन्ति तदां मधुमेहं करोति । ” च.नि.४/३७

According to Charaka the vitiated Kapha spreads all over the body due to its laxity. While spreading, Kapha gets mixed with the Medas as it is abundant, non-compact and similar in properties to Kapha. While mixing with the Medas, Kapha affects its compactness. Now that this amalgamation of Medas and Kapha has been formed it further mixes with Kleda and Mamsa because of which the latter dooshyā are increased excessively. Afflicted muscles cause a range of skin problems like Sharavika, Kachchhapika, etc. By affecting the Kleda, the quantity of urine is increased and also blocks the openings of urinary tubules coming out of the vamkshana and basti. This urine is associated with Medas and Kleda.

“श्लेष्मा पित्तं च मेदं मांसं च अतिप्रवर्धते तैरनुत्त गतिर्वायुरोज आदाय गच्छन्ति ॥ यदाबस्तितादक्रुच्छो मधुमेहं प्रवर्तते । ” च.सू.१७/८१-८२

Acharya Charaka has also mentioned that the Vata is predominantly vitiated in Madhumeha. When Vata gets vitiated excessively throughout the body, it takes along with it the Ojas and enters into the urinary channels to Produce Ojomeha or Madhumeha. Ojas being sweet in nature but, due to roughness of the Vata it gets associated with astringency imparting a madhura-kashaya taste. The Ojas in this context refers to “Apara Ojas”. According to Sushruta, dosha viz. Vata, Pitta and Kapha get mixed with improperly formed Medas and gets deranged. It is carried down through urinary ducts. The deranged dooshyā present in the urine finds their lodgement at the neck of the urinary bladder. When these are excreted through the urethra, they cause the disease Prameha (Su.Ni.6/4) According to Vagbhat, the vitiation of Kapha affects the Kleda, Medas, Sweda, Rasa, and Mamsa.

When Vata gets vitiated it affects the Vasa, Majja and Ojas(Va.Ni.10/4)

Upadrava

“उपद्रवस्तु खलु रोगोत्तरकालजो रोगाश्रयो रोग एव स्थूलोऽणुर्वा रोगात् पश्चाज्जायते इत्युपद्रवसंज्ञः “च.चि.२१/४०“ तत्र व्याधि रोगारम्भक दोषप्रकोपजन्योऽन्यविकारः ” मा.नि.१/२(मधुकोश)

The study of disease complications has been thoroughly explained in Ayurvedic literature under the heading of “Upadrava”. Pioneers of Ayurvedic system of medicine like Charaka, Madhavakara, Chakrapani, etc. have elaborated the genesis of Upadrava in detail. Charaka in Chikitsasthana of his treatise has defined Upadrava as, “the one (disease condition) which occurs in the course of other disease, although it may result from the same disease. According to Madhukosha commentary Upadrava is the morbid event which develops by the factors that are responsible for the manifestation of main disease. It may be due to excessive aggravation of the dosha, dushya, etc.

Complications of Madhumeha : (च.नि.४/४८,

सु.नि.६/१५, वा.नि.१०/२४)

“उपद्रवस्तु खलु प्रमेहिणां तृष्णातीसारदाहदौर्बल्यारोचकाविपाकाः पूतिमांसं पिडकालजीविद्रव्यादयश्च तत्प्रसंगाद् भवन्ति ” च.नि.४/४८

Ayurvedic sages have described the supervening symptoms of Madhumeha commonly under the title of Upadrava of Prameha. MaharshiCharaka has described that on chronicity, Prameha gives rise to following complications Thirst, Diarrhoea Fever, Debility, Burning sensation in hands and feet, Anorexia, Indigestion, Boils due to sloughing of soft tissues eg. Alaji, Vidradhi, etc.

DISCUSSION

The prime symptoms of all types of Prameha including Madhumeha are; increased quantity and turbidity of urine and particularly of Madhumeha are mootra madhuryata (sweetness of urine), madhuraiva meha (urine resembles honey), madhuryaschatanorath (raised sweetness of whole body). Charaka has explained astringent taste of urine with ununctousness. Sushruta and Vagbhat has described sweetness of urine like honey. Apart from these symptoms, the premomitory symptoms described in Samhita can be observed in madhumeha. For example, pipasadhikya (polydipsia), aalasyata (lassitude), maladhikyaata (accumulation of mala)The specific feature of this disease is explained by Sushruta, that Madhumehi, if he is walking then he desires to stand, if he is standing then he desires to sit, and if he is sitting then he desires to lie down and if he is lying down he desires to sleep.

CONCLUSION

The rich literature of Madhumeḥ described in Ayurvedic classics still remains a tremendous scope of research in the field of diabetes mellitus. From the above literature it may be concluded that the word *prameḥ* can be considered as a Diabetes mellitus. According to the above clinical description it is indicated that the ancient physicians of India were aware of the presence of sugar in blood and urine.

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