# CONCEPT OF PRAMEHA/MADHUMEHA (CONTRADICTIONS AND COMPROMISES)

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ABSTRACT: Of all the misleading statements Caraka's categorical declaration that all pramehas if not treated ends up as Madhumeha stands formost. Outlining a common samprapti for all Mutratipravrittaja Rogas appears to be the basic misleading efforts. Extremely limited description at certain points only adds to the confusion. Untiring efforts of the enthusiastic scholars to prove that Madhumeha is synonymous with Diabetes Mellitus have failed to help. The present study undertakes to discuss these aspects in detail and endeavours to come out with some solutions without compromising much on the classical concepts.

### Introduction

Inclusion of Prameha among the eight major disorders in Caraka Nidana, shows the significance the disease was given by the It seems the disease was quite prevalent among the masses and was considered important in as much as it was incurable besides imposing a ban on dietary freedom of the patient. The disease was considered among the Mutragata Rogas and as many as 20 types had been identified. Each of these 20 types when seen with a western angle seem to stem from different causes and the wisdom of the sages in putting all these under a single group is seen with some amount of suspicion. Of late many comparisons have been made between Prameha – particularly Madhumeha with Diabetes mellitus but the matter is yet to be settled. The reality is that, there are some

similarities between the two as far as Etiological factors, clinical presentation and to some extent therapeutic aspects are But Ayurvedic view on the concerned. pathogenesis is entirely different from that of western view and it is in this aspect that Ayurvedists differ and even score a point over the westernists. However the Ayurvedic concept of Prameha as a whole and Madhumeha in particular is difficult to understand, more so because of the confusing and even contradictory statements and less, because of the vagueness of description. The present article endeavours to discuss the similarities differences among the various components of Prameha/ Madhumeha and D.M. However special emphasis is laid on unveiling the mystery encircling the Ayurvedic concept on pathogenesis.

# **PARIBHASA: (Definition)**

"Prakarsena Prabhutam Pracuram Varam Varam Va Mehati Mutratvagam Karoti Iti Pramehah" – Ma. Ni. 33/1.

Premeha is a syndrome which includes all those clinical conditions which are characterized by increased quantity of urine associated with or without the increased frequency of micturition. Poly urea and Turbidity of the urine are the two essential presenting features of his diseased state<sup>1</sup>.

Diabetes Mellitus on the other hand is defined as clinical syndrome associated with Hyperglycaemia with or without glycosuria due to defective insulin – either in quantity of effictivity, characterized y poly urea poly phagia and poly dypsia.

Thus Prameha refers to repeated (Prakarsha) excessive (Prabhoota) and turbid urination in terms of frequency, quantity and clarity. Ayurveda fixed the normal quantity as 4 Anjalis (1600 ml) and puts frequency at 6.

The term 'Prameha' has two parts. 'Pra' meaning abundant, and 'Meha' meaning 'passing of large quantity of Urine. Incidentally the term diabetes has been derived from the Greek term 'Diabainein' to mean 'to cross through a siphon' meaning continuous free flow of water and applied to mean elimination of large quantity of Urine. Thus the terms 'Prameha' and 'Diabetes' carry similar meaning.

Interestingly enough the terms madhumeha and diabetes mellitus are analogus madhu ad mellitus mean honey and thus madhumeha and diabetes mellitus mean passing of large quantity of sweet urine. Thus it is seen that the terms 'Prameha' and 'Diabetes' are synonymous. While the terms 'Madhumeha' and Diabetes Mellitus' have similar meaning. Thus the etimology being the same, at a later stage it would be seen that the similarity is not limited to this stage. Further etiological, and even therapeutic aspects go side by side.

# **NIDANA:** (Etiology)

"Asyasukham.....Kapha Krutca Karma" Ca, Ci.6/4

All those factors (foods are regimens) which increase the quantity of Kapha n the body are said to be the causative factors of the disease. Prominent among these are the Sedentary habits, increased consumption of sweets and fats.

This is the common etiology for all types of Pramehas. It indicates that whatever may be type of Prameha (Vataja Pittaja, Kaphaja) the etiology mainly revolves around kapha. Caraka states that it is Kapha which is aggravated first because ofthe excessiveness in quantity already attained by it (due to the etiological factors) and it is the one which initiates the process manifestation of Prameha<sup>2</sup>. But Caraka mentions different etiological factors for Vataja, pittaja and Kaphaja Pramehas in Nidana<sup>3</sup>. However no other classic touches this aspect. Even caraka in chikitsa six, talks only about the common etiological factors<sup>4</sup>. This prompts one to accept that Kaphakara Ahara Viharas are the prime factors in causation of the disease Process and all Kaphakara Bhavas are Pramehakara Bhavas.

Diabetes Mellitus is characterized by hyperglycaemia due to the absolute deficiency of Insulin or diminished biological effectiveness of it<sup>5</sup>. The disease is generally put among the endocrinal and metabolic disorders6 based peculiarity of the disease with endocrinal involvement leading to metabolic As Hyperglycaemia is the derangement. Sine-qua-non of D.M., almost all the causes of the Hyperglycaemia have been attributed to D.M7.

Western medicine accepts hereditary and genetic causes as mentioned in Ayurvedic texts. Sedentary habits especially when associated with over eating can cause D.M. Indulgence in excessive carbohydrate diet (Madhura Bhava) though is not implicate among the major etiolllogical factors, it is implicated in Alimentary Glycosuria. Various endocrinal, latrogenic, Pancreatic and Hepatic factors implicated in secondary not find a mention in Diabetes do Ayurvedic texts.

Thus only primary D.M., seems to have some etiological factors akin to those of Prameha, though Insulin no where figures among the causative factors mentioned in our texts.

## **BHEDA:** (Classification)

This aspect is considered prior to the samprapti for the sake of convenience. Three different classification have been suggested.

A) Hetu Bheda<sup>9</sup> Sahaia

(Etiological) Apathya Nimittaja

B) Dehaprakruti Bheda10 Sthula-Balavan (Constitutional) Krisa-Durbala

C) Doshika Bheda11 Kaphaja (Clinico Pittaja Pathological) Vataja

Bija Dosha and Kulaja<sup>12</sup> Dosha have been implicated in the causation of Sahaja Prameha. This patient is said to be weak, emaciated, afflicted with excessive thirst, loss of appetite and need to be treated with excessive thirst, loss of appetite and need to e treated with nourishing diet. On the other hand in the one which is caused by excessive indulgence in sweets and like substances the patient is corpulent strong afflicted is with polyphagia, and sleepishness and Lazyness<sup>13</sup>.

It is true that Diabetes has a genetic genesis an hereditary factors are involved. It is also true that these patients are weak, asthenic and emaciated. These patients are known as Juvenile diabetics and need nourishing diet. Maturity onset Diabetics tend to overeat and are lazy. But for the age factor which is missing in our texts this classification gives full scope for comparison between Prameha and D.M.

The Sthula and Krisa classification is akin to obese and Non-obese division, while the modern classification is clear, Ayurvedic view point needs some clarification.

Obese patients are said to be strong and hence need reducing (Apatarpana) therapy. This type is said to be kaphapradhana Nonobese patients on the other hand are weak and are to be treated with nourishing diet<sup>10</sup> Vata has been implicated here.

The sthula and Krisa classification though is based on the constitution of the patient, may factors are implicated, sthula is said to be strong and Krisa is said to be asthenic. While kapha is implicated in the former, Vata is involved in the latter. In a stula Madhumehi the following are the possibilities.

- (1) The type is Jatottoraja (Apathya Nimittaja).
- (2) This is a Kaphapradhana Madhumeha.
- (3) This can also be Avrita Vataja
- (4) Kapha initiates the disease and hence this stage can be considered as the initial stage of Madhumeha. Krisa Madhumehi can be
- (1) Janma Jata (Sahaja), Kulajata.
- (2) Sudha Vataja
- (3) This may be a later stage of Kaphaja madhumeha.

Thus Sthula Madhumehi at a later stage can become a Krisa Madhumehi indicating two stages – Kapha stage and Vata stage for the disease. While Kapha stage in long run leads a Vata stage, Vata stage can manifest independent of Kapha stage as happens in cases of Sahaja Kulaja and suddha Vataja conditions. So a recently diagnosed Madhumeha in a lean weak emaciated patient implicates three things.

- (1) The disease was latent all this time and the Kapha stage was not actually recognized and the patient has already reached vata stage.
- (2) There has been very rapid development of Madhumeha with the gap between Kaphastage and Vata stage being greatly reduced
- (3) It is a sahaja, or Kulaja or suddha Vataja Madhumeha.

In the discussion above it is assumed that sthula and Krisa classification is for Madhumeha and hot for Prameha, hence some unusual terms like vataja Madhu meha and Kaphaja madumeha. This aspect is dealt elaborately in the coming pages.

The clinic pathological classification basing the Dosic influence is widely dealt by all Ayurvedic classics. Unfortunately this is the one which is one of the most confusing and even misleading aspects of the chapter. Twenty types of Pramehas (Kaphaja-10 Pittaja-6, and Vataja-4) have been counted under this head, each type being vaguely described. The literature is so limited that it adds only to the confusion already created. The description allows one to think that basis for classification is just physical appearance of urine. Even vagbhata accepts that the basis for the division in only the variation in the colour, taste, etc., of the urine<sup>14</sup>. It would have been very clear, no confusion would have arised if Prameha was simply considered as a group of urinary disorders with a varied etiology, kept under this head only because of their commonness in afflicting the urine. This is not the case. Confusion arises when caraka binds them in a common samprapti15 and deepens the

confusion by stating that if not treated properly all types of Pramehas end up as madhumeha which is the incurable state<sup>16</sup>.

A critical analysis of the sub types of prameha shows what the changes observed in colour, Density, etc., of urine are varied and arise out of a diverse etiology, the pathology varying and etiology.

Kshare Meha is a condition where urine becomes Kshare like ie. Alkaline by nature. This Alkalinuria had to varied etiology. Pathologically it can be see in chronic cystitis and is some cases of chronic dyspepsias non pathologically excess in take of Vegetables and fruits, can lead to passing of Alkaline urine. Retention of urine in the bladder due to physiological or pathological causes can also lead to Alkainuria. Some times urine passed after 2-3 hours of taking food is Alkaline. Urine preserved for few hours becomes Alkaline. The mechanism is simple. Urea is converted into Ammonium carbonate which is Alkaline. Thus it becomes very clear that kshara Meha can be a consequence of various physiological and pathological events. Though there is nothing wrong is treating this as physical abnormally of urine, it is difficult to accept that mally of urine, it is difficult to accept these conditions can that lead Madhumeha or Diabetes Mellitus. Similarly all but few of the pramehas seem to have diverse etiology and pathology. The scope of this article being limited each is not being discussed.

On the other hand there are a few Pramehas of Kaphaja type which can lead to Madhumeha. When excessive santar pana results in Kaphaja mehas especially Iksu and

Seeta Mehas which have Mutra Madhurya in common<sup>18</sup>, there is a possibility of them being converted into Madhumeha. Here the samprapti being similar kaphaja Meha getting converted into Vataja meha, in long run due to Dhatu Kshaya and subsequent Vataprakopa have to be viewed with an Ayurvedic eye. Caraka makes it clear that kaphapitta Kshaya in a Kapha-Pitta Pramehi associated with chronicity and Dhatukshaya leads to aggravation of Vata resulting in Vataja mehas<sup>19</sup>. Though there are many causes for glycosuria (Iksu meha) including treatment with steroids, only santarpana Janya Iksumeha should be considered here. The concept of an obese diabetic-Insulin independent (Kaphaia Ikshumehi) turning non-obese-Insulin dependant (Vataja Meha) Diabetic in ling run is well accepted by modern scientists.

Thus there is a contradictory evidence for Prameha being a single disease entity with common etiopathogenesis with Kapha Pitta and Vata as three (Progressive) stages, and also for it being a group of obstinate urinary disorders with diverse etiopathogenesis, with the cause for keeping them under a single head being physical abnormality of the urine. The two theories can be explained as under.

The definition of Prameha makes it clear that the disease should be called Prameha whenever there is increased amount of urine with or without increased frequency of micturition. The fact that Prabhutatva and Avilatva are the two common Lakshanas of all types of Pramehas only substantiates this view caraka's statement that the division of Pramehas is base don physical properties

like colour etc., of urine gives a documental evidence. Vagbhata clinches issue by dividing Murtrugata Rogas into two typws<sup>20</sup> Mutra Apravrittaja Rogas Mutratipravrittaja Rogas, Pramehas being kept in the latter group. He further says that Vasti is the seat of both Mutraghatas and Pramehas<sup>21</sup>. Thus it is proved beyond doubt that prameha is a group of disorders affecting the Mutra, with Vasti as their site and is characterized by Adhikatva and Avilatwa of Mutra. It was the time when physicians used to depend mainly on their sensory faculty and intuitive mind to arrive at conclusions. No chemical and Biological examinations were carried out. Thus based on different physical abnormalities of urine the most commonly observed 20 varieties were described. Further division, that is the Doshic grouping is based on the similarities of the properties of the abnormal urine, with doshas. For Eg, Sandra Pishta ad Udaka Meha etc., were grouped under kaphaja Mehas based on the solidity observed in these conditions.<sup>22</sup> Grouping of Pittaja and Vataja Pramehas was based on the similar observations.

Pathology or Samprapti was based on the constitution and also on etiological factors. Indulgence in Kaphakara Bhavas was said to vitiate Kleda (Mutra) and produce Kaphaja Mehas. Similarly indulgence in Pittaja Bhavas was said to vitiate kleda and produce Pittaja Mehas. In both of these types patients were strong (Upachita) and obsess. But as far as vataja Prameha was concerned they found it difficult to explain, because here no vata aggravating factors were found. Howevel they observed a few emaciated lean and asthenic patients who passed urine

which was quite thick and resembled majja vasa Madhu etc. this they inferred should be vataja meha and concluded that the pathogenesis for Vataja Mehas was Dhatukshava and Doshakshaya.

The above theory is quite reasonable but for the common etiology, pathology and therapeutic measures outlined for the disease. As discussed earlier etiology for all these conditions is varied and hence pathology and therapeutics of these different condition not only will very but some times may even be contradictory. If one accepts the following suggestion the whole picture becomes crystal clear.

The whole description of Prameha including Nidana, samprapti, Lakshana and chikitsa barring the Clinocopathological classification should be separated and viewed as a disease entity called Madhu The rest 19 conditions should be considered as obstinate urinary disorders with diverse etiology. Inclusion of madhu meha among these different condition may simply be due to Mutra Dosa samayatva or maybe due to some other unidentified factor. The description of Prameha barring the classification has an awesome relation with description of diabetes Mellitus and one really wonders to find so much of similarity between the conditions which a described in two different eras separated by some 3000 However Ayurvedic concept on pathogenesis differs, but seems to be more correct and comprehensive.

On the otherside of the coin fundamentalists stick to the view that prameha is a single disorder and should not be viewed as a group of different condition there is nothing much to substantiate the view point. Descriptions of all these conditions in a single chapter and caraka's statement that all type of Pramehas if not treated get converted to Madhumeha are the only two factors that assert the statement. Though some scholars are of the opinion that kaphaja pittaja and vataja pramehas are three different stages of the same disease with the former being the initial and latter the end stage with Pittaja This is based on stage in between. Arunsatta's commentary on "Kramena E Vatakritahca Meah" (A.H.NI 41). However cakrapani keeps mum on this issues, though this statement appears in caraka chikitsa also23. As discussed earlier except for one or two types of kaphaja Mehas which can turn to Madhumeha, that too without entering the intermediate stage, no other type seems to progress into vata stage. Efforts made by chandola and tripathi24 in this direction need to duplicated/reproduced by different workers before something can be though in this direction.

It seems that of the above two views the former which separate Madhumeha from other 19 Physical abnormalities of urine gives a better picture of the Ayurvedic concept of the disease.

# **SAMPRAPTI:** (Pathogenesis)

In caraka chikitsa the samprapit for three different types of pramehas viz., Kaphaja, pittaja and vataja have been briefly explained25.

Kapha situated in Vasti vitiates meda, mamsa and sareera Kleda and produces kaphaja mehas. Similarly pitta aggravated by pittaja bhavas vitiates the same elements to produce pittaja mehas.

'Vataja Mehas' Samprapti differs slightly. When vata gets aggravated, the other two dosas diminish in quantity and this affravated vata draws the dhatus majja vasa lasika and Oja) to the vasti and produces vataja mehas. 'Kshena Dosa has been interpreted as 'Vriddha Vata pekshaya Kshenesu Na tu Samana pekshya Kshenesu' i.e., the dosas diminish in quantity when compared to vriddha Vata and do not diminish in their natural quantity. In all these three types dosas situated in vasti vitiate mutra to produce mehas.

The above description does in no way help to understand the real pathology. For a more compact picture, one has to refer to caraka nidana 4/8 where beautiful description of the samprapti has been outlined.

"By the favourable combination of all the three specific factors viz., etiology, dosas Kpha gets immediately and Dhatus, aggravated because of he excessiveness in the quantity already attained by it and it initiates the process of manifestation of prameha because of the looseness (Saithilya) developed in the body. The aggravated kapha spreads all over the body and while spreading it first gets mixed with medas because there is an increase in the quantity of Medas which is also unbound (Bahu and Abadda) and also because Kapha and Medas share identical qualities like heaviness, coldness etc. these two mix with muscle tissue and liquid dhatus of the body. The vitiation of muscle tissue leas to pramehapidakas, the vitiated liquid Dhatus are formed in to urine. The openings of channels carrying urine are obstructed by medas and Kapha giving rise to prameha".

Thus in the pathogenesis various factors are involved. First it is Kapha which increases in quantity and also gets liquefied. (Bahu Dravah sleshma (Ca. Ni,  $4\6$ . This is followed by saithilya or sithilikarana meaning preparation of a base for the initiation of pathological events meaning body's susceptibility for the disease. This process in turn, is followed by the association of kapha with excess (Bahu) and unbound/ unutilized (Abadda) Meda. Mamsa and Kleda leading to various presenting features of the disease.

For the sake of better understanding the following description would be useful.

Excessive intake of Madhura and like substances leads to quantitative increase in Sleshma and sleishmic secretions and also that of Kleda. Kleda is a liquid material produced in the body during digestion and it travels along with Rasa all over the body helping dhatu tarpana and collecting Dhatu male. It finally mixes up with urine and is passed out of the body. The urine like Sweat etc., is a waste product which is produced during digestion and assimilation of ingested food. Hence it is mizture of unwanted and harmful substances n a liquid form. The changes in the appearance, colour etc., of urine is thus can be due to two reasons.

(1) When it contains some abnormal waste products which are not naturally present in the urine.

(2) Due to various permutations and combinations of the waste products normally present in the urine.

Thus it becomes clear that for all the abnormalities of urine i.e., Mutrarogas or pramehas to be precise, the main cause seems to be impaired digestion and assimilation of food ingested. This impairment may be due to

- (1) Excessive intake of sweets and fats which cannot be utilized by the tissues, producing undigested products of metabolism (Ama).
- (2) Impaired digestive fire both at Gastric and tissue levels Kayagni and Dhatwagni again producing ama. In the presence of Mandagni the Sneha bhavas and Madura Bhavas are not fully converted to end products and are expelled from the body. Different glycosulias, Alimentary, renal, Diabetic if viewed from this angle become more clear.

This Ama may be in the form of Ama Dosa, and Ama Kleda. These two join hands to vitiate Medas and then Mamsa and other Dhatus to produce Pramehas, The involvement of Agni and Ama formation in Prameha is well documented. Prameha is considred among the complications of Ajirna by caraka20. Susruta says that vata pitta and kapha in Apakva state alone can produce prameha<sup>27</sup>. Susruta adds that its various combinations of Dosa, Dhatu, Mala and digestive products that result in different types of Pramehas.<sup>28</sup>

The mixture of Kapha Kleda Mamsa and Medashence has been described as the prime

factor in all types of pramehas. When these four factor in all types of Pramehas. When these four factors mix up with other six factors in different proportions of combination different types of Pramehas are said to result.

This concept includes modern concept of Diabeted Mellitus which implicates the impairment of carbohydrate (Kapha) Protein (Mamsa) and fat (Medas) Metabolism. Ayurvedists have not touched the concept of Insulin, but they have a wider concept of Agni which includes all enzymes, and harmones responsible for all the metabolic activities of the body. Moreover implication of Insulin in D.M has not fully succeed in clearing the doubts. Many diabetics have hyper insulinemia, and many more have normal insulin levels. Insulin antibodies and lack of receptor theories have not really been helpful in explaining the pathology.

Thus from the Ayurvedic view point all types of pramehas seem to stem from a single pathology i.e., metabolic derangement at different levels. For urine is a metabolic product and hence all abhormalities of urine should be considered to be of metabolic Hence all pramehas including origin. Madhumeha i.e., diabetes Mellitus have one thing in common – metabolid derangement. Hence all these Pramehas can be considered metabolic disorders manifested as physical abnormalities or urine. Inspite of this Mahumeha differs from rest of the Ninteen Mehas. Which in turn mutually differ, as they are unrelated in many aspects. The abnormal urines as found today include protinuriasnuines as found today include protinurias a (Nephrotic and Nephrtic), porphyrinurias (Cirrohosis, Pernitious Haematurias (Trauma, Tumur, Anemia), Phosphaturias, Tuberculosis etc.), Alkaptanurias etc., which has diverse etiologies pathologies and managements. These we should consider pramehas because we have none else to be seen and there is no scope for them getting converted into diabetes Mellitus. One who says that those (Protienuria etc.) are not Pramehas should be ready to show separate set of urinary abnormalities, which I presume, do not exist.

From the practical point of view until one visualizes a good number of cases of Sandra Meha, pishta Meha etc., getting converted into Madhumeha one cannot defend the statement made by the seers to this effect.

Thus it is seen that madhumeha and Diabetes Mellitus have many things in common etymology, etiology, classification and to some extent The facts on which the pathogenesis. comparison is made are firm and based on practical observations it only goes to prove that Madhumeha and Diabetes Mellitus are similar entities and prameha is different from Madhumeha.

So as discussed elsewhere it would be wise to separate 19 Pramehas from Madhumeha and treat them accordingly. The whole chapter on Prameha should be considered as relating to Madhumeha the concept discussed here seems to be the exact pathogenesis of the disease entity Madhumeha. Which is an old model (though with some of the peculiarities retained) of the currently popular disease know as Diabetes Mellitus.

Finally a word about Diagnosis. The sages had their own ways to arrive at a diagnosos of a disease. They applied their sensory apparatus with precision in the absence of evolved biochemical methods. So naturally the parameters were more subjective. They stressed the importance of purvarupa, rupa and physical properties of the urine in the diagnosos, along with the physicians efficiency in working out the samprapti of the disease. They could even differentiate prameha from Raktapitta basing on the presence or otherwise or the purvarupas of Prameha29. Susruta suggests to observe various combinations of purvarupas and Roopas to diagnose Prameha30. Vagbhata's definition of Madhumeha also gives a clue to the diagnosis. He says that all conditions where urine resembles honey in all aspects and even the body becomes sweetish, should be regarded as Madhumeha31.

In the present circumstances one should make use of advanced technology available for the diagnosis of Madhumeha. Lab investigations should become a part of the diagnosos but should not be the only means of diagnosos. Tests like Benedict's test should be used to test the presence of sugar in the urine this test has an advantage in as much as it identifies all Madura-Bhavas (Reducing sugars) present in the urine. Thus after examining Gandha and Varna of urine this will help in knowing he rasa of urine which is the important aspect in thdiagnosis of Madhumeha. Examination of blood sugar should also be incorporated because it confirms the diagnosis form western point of vies. Vagbhatas "MADHURYATCA TANO RATAH" if viewed in this angle may be However as said earlier these helpful.

investigations should only aid and not decide the diagnosis. Presence or absene of Purva Roopas and Roopas physical properties of urine and pipilika Abhidhavna should be given prime importance. Finally samprapti should be worked out based on Dosa Dushyadi Bavas. Thus the diagnosis of Madhumeha should be based on the out come or thorough examination of the patient both from Ayurvedic and Western angles.

# **CONCLUSION:**

Western approach for Diabetes is based on wrong footings. Treating hyperglycaemia with hypoglycaemic drugs without caring to metabolic impairment is correct the something like applying dye to the grey hair which though helps to look younger does not reverse the fundamental process of Under the present senescence. circumstances Ayurvedic approach for etiopathogenesis and treatment would be of great use. Separating 19 Mehas from the chapter of pramehas ad attributing the whole description to Madhumeha identifies Ayurvedic concept of this most dreadly disorder – Diabetes mellitus. It also answers all doubts raised about those the contradictions and confusions about the disease.

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