



### *Madhumeha*(Diabetes Mellitus): An Ayurveda Review

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#### ABSTRACT:

Diabetes Mellitus (DM), usually known as diabetes, is a group of metabolic disorders characterized by high blood sugar levels over a prolonged period. Globally, an estimated 422 million adults are living with diabetes, according to the latest 2016 data from the World Health Organization(WHO)<sup>1</sup>. India has being estimated with fastest growing population of diabetics. It is a metabolic disorder may result in deficiency or dysfunction of the insulin production. The preventive measures in Ayurveda can prevent be the disease. The main causative factor is said to be sedentary lifestyle and food habits. In Ayurveda it is described in *prameha*, which can be managed conservatively with exercise, diet and internal medication.

**KEY WORDS:** Diabetes mellitus, metabolic disorder, *prameha*.

**INTRODUCTION:**

India has been projected by WHO as the country with the fastest growing populace of diabetic patients. It is assessed that between 1995 to 2025 diabetic patients in India will growth by 195%. The difficult with diabetes mellitus is that it is very difficult to diagnose in the early phases. However, a person stick to an Ayurvedadefensive strategy right from the beginning can easily prevent this disease or control it if already suffering. It is a medical condition in which there is an accumulation of glucose in the urine and blood of the person. This disorder is known as hyperglycemia.

प्र + मिह - "मेहतिमूत्रयतिइतिअर्थ"।<sup>4</sup>

प्रकर्षेणमेहतियस्मिनरोगेसप्रमेहः।

प्रकर्षेणप्रचुरंवारंवारवामेहतियोरोगेसप्रमेह।<sup>5</sup>

**DEFINITION OF MADHUMEHA:-**

The clinical condition in which patient passes the urine having concordance with *madhu*(honey) i.e. of *kaṣāya*and *madhura* taste, *rūkṣa* (dry) texture and honey like color and body acquires sweetness is called *madhumeha*.<sup>6,7</sup>

However, *Suśruta* has used the term *kṣaudrameha* in place of *madhumeha*.*Kṣaudra* is nothing but diversity of *madhu* (honey), which is *kapila* (tawny) in color. So it is definitely similar with *madhumeha*. Additional, he asserted that when all the *prameha* ill-treated or neglected is transformed into *madhumeha*<sup>8</sup> and exclusively he emphasized that the disease *prameha* along with *piḍaka* and other

**ETYMOLOGY OF PRAMEHA:-**

*Prameha* is prepared up of two wards *pra* and *meha*, whereas '*pra*' is prefix '*meha*' is derived from '*mihsecane*' by adding '*lue*'*pratyaya* to it '*mehati, siñcatimūtraretāmsi*', which resources irrigation / excretion of urine and semen.<sup>2</sup>'*pra*' indicated excessive quantity and frequency.<sup>3</sup> In saṁskṛta '*mih*' denote to make water, to wet, to emit semen. It can easily postulate on the above description that the disease '*prameha*' is resulted because of excessive excretion of somewhat.

*pramehaupadrava* should termed as *madhumeha*<sup>9</sup>.

**SYNONYMS OF MADHUMEHA:-**

- *Kṣaudrameha* – According to *Suśruta*
- *Paushprameha*<sup>10</sup> – in *AnjanaNidāna*
- *Ojameha*<sup>11</sup> – according to *Caraka*

**CLASSIFICATION OF PRAMEHA:-**

- (1) According to *doṣha*
- (2) According to Prognosis
- (3) According to etiology
- (4) According to body constitution

**1. According to Doṣha:-**

All the *Ācārya* have classified *prameha* mainly in three categories again subdivided into twenty types. Although

number of types, varies a little according to nomenclature by different *samhitā*, the total number of subtypes of group of *vātaja*, *pittaja* and *kaphajapreme* remain the same. Among these, 10 are of *kaphaja* type, 6 are of *pittaja* type and 4 belong to *vātaja* type.

Both *Caraka* and *Vāgbhaṭa* states that different type occurs because of specific combination of *doṣha*, *dūṣyā*. Different *guṇā* of *doṣha* combined with *dūṣyā* produces a specific type of *prameha*.<sup>12,13</sup> *Cakrapāṇi* explained that the

nomenclature is because close resemblance of urine with particular quality (*guṇā*) i.e. *śītameha*, *śuklameha* etc. *Caraka* opines that *prameha* are not only of 20 types but *tridoṣha-kopanimittaprameha* are of 20 types and other *doṣhadūṣyā* is innumerable so *prameha* can also be of numerous types.<sup>14</sup>

**2. According to Prognosis<sup>15</sup>:-**

Prognosis is an inevitable part of *cikitsā* as far as a wise physician is concerned success of treatment depends on an unbiased prognosis.

**Table: 1. According to Prognosis:-**

<i>Sādhyā</i>	<i>Yāpyā</i>	<i>Asādhyā</i>
<i>Kaphaja</i>	<i>Pittaja</i>	<i>Vātaja</i>
Obese	Usually not much obese	Asthenic
Acquired	Acquired	Hereditary
Early stage	Acute stage	Advance stage
Without complications	With complications	With complications

3.

**According to Etiology:-**

- a. *Sahaja* (hereditary)
- b. *Apathyanimittaja* (acquired due to life style)
  - *Āvaraṇajanya* and *dhātvaṇajanya*<sup>16,17</sup>
  - *Santarpaṇajanya* and *apatarpaṇajanya*<sup>18</sup>
  - *Anilātmaka* and *kaphasambhavi*<sup>19</sup>

**1. According to body constitution:-<sup>20,21</sup>**

- I) *Sthūlapramehi*
- II) *Kṛśapramehi*

Whereas narrating the controlling of *prameha*, *Caraka* has categorized all the patients of *prameha* into two main groups, viz. *sthūlapramehi* and *kṛśapramehi*. *Suśruta* also mentioned that body

constituents of *sahajapramehi* is usually *kṛśa* (thin) and that of *apathyanimittajapramehi* is *sthūla* (obese) **NIDĀNA (ETIOLOGY):**

Knowledge of etiological factor & their role in pathology is very much essential to find out the constituents like *doṣha*, *dūṣyā*, *mala*, progression of the disease & their role in diagnosis & prognosis. All ancient treaties stated the common etiological features of *prameha* but *Caraka* mainly narrated the specific etiological aspects according to *doṣha*. He also mentioned the exact etiological factors of *madhumeha*. This is the exceptional contribution of *Caraka*. Etiological factors can be classified into *sahaja* & *apathy nimittaja*.<sup>22</sup>

- **Sahaja:-**

The word *sahaja* means from birth. It is said to be *mātr-pitr-bījadōṣhakṛta* will result in *sahajapramehadue* to certain defects in *ḍimba&śukrāṇu* (ovum & sperm). Regarding *bījadōṣha* it may have its origin from parents of both father & mother i.e. it may be inherited from generation to generation & thus it is a unique example of hereditary disease. *Caraka* narrated that *sahaja* type of diseases can occur due to fault in *bīja*, *bījabhāga* or *bījabhāgavayava* which can be correlated to ovum & sperm, to chromosomes and to genes respectively.<sup>23</sup>

*Caraka* has revealed that too much indulgence of *madhurarasa* by parents is the chief cause of changes and damages in the *bīja* (sperm & ovum), over indulgence of *madhura rasa* by mother during pregnancy is likely to induce *prameha*.

● **Apathyanimittaja (Acquired):**

Disease take place due after birth and environmental factors, stress, sedentary life style, food and dietetic indiscretions are accountable for the disease. *Caraka* has reported etiological factors according to *doṣhaprevalence* in *nidānasthāna* & common etiological factors in *cikitsāsthāna*. While we go through all etiological factors we can highlight the following opinions.

- ✓ All the etiological factors having potentials like *snigdha*, *śīta*,

*guru, picchila* and *slakṣṇa*, *maṇḍa*, *sāmdra*.

- ✓ All the etiological factors mainly cause excessive load overdigestion (*agni*) and form *aparipakvadhātu*.
- ✓ Altogether the etiological factors cause deposition of extra and unwanted matter in the body i.e. additional of vitiated *meda*, *kleda*, *lasīka* etc.
- ✓ All the etiological factors cause more energy preservation and less expenditure, leading to lethargy and obesity.

1. **SāmānyaHetu (General causes):-**

*Caraka* has described significance of the *kaphadoṣha* in all types of *prameha*. He told that excessive liquid form of *kapha* is *maindoṣha*.<sup>24</sup>

*Sāmānyanidān* of *prameha* are the *hetu* which reasons *kapha*, *meda* and *mūtravṛddhi*.<sup>25</sup>

As the associated table shows all the *āhār-vihār* are having *guṇa* like *snigdha*, *śīta*, *guru*, *picchila*, *madhura*, *slakṣṇa*, which will rise *kapha* and like *dūṣyā*. These *nidāna* generally causes excessive burden over *agni* and form *aparipakvadhātu*. *Agnivaiṣamya* causes deposition of excess and unwanted matter in the body as *meda*, *kleda*, *lasīka*, *mūtra*, and *sveda*.

Table: 5) *SāmānyaNidāna of Prameha/Madhumeha:-*<sup>26</sup>

<i>Nidāna</i>	<i>Ca.</i>	<i>Su.</i>	<i>A. S.</i>	<i>A. Hṛ.</i>	<i>Mā. Ni.</i>
<i>Apathyaja-āhāra</i>					
<i>AtiDadhiSevana</i>	+	-	-	+	+
<i>Medavardhakdravyaatisevana</i>	-	+	+	-	-
<i>Grāmya, Ānūpa, AudakaMāmsa</i>	+	-	-	+	+
<i>PayahSevana</i>	+	-	-	+	-

Navapāna	+	-	-	+	-
Navānna	+	-	-	+	+
GuḍaVikṛta	+	-	-	+	+
ŚleṣmajanakaĀhāra	+	-	+	+	+
ŚītaDravya	-	+	-	+	-
MadhuraDravya	-	+	-	+	-
AmlaLavaṇaRasa	+	-	-	-	-
SnigdhaDravya	-	+	-	+	-
Drava Annapāna	-	+	-	+	-
Guru Dravya	-	-	-	+	-
PicchilaDravya	-	-	-	+	-
MūtrajanakaDravya	-	-	+	+	-
Tikta, Kaṭu, KaṣāyaRasa	-	-	-	+	-
UṣṇaKaṭuRasaSevana	+	-	-	-	-
<b>Apathyaja-Vihāra</b>					
ĀsyāSukham	+	-	-	+	+
SvapnaSukham	+	-	-	-	+
Divāsvapna	-	+	-	-	-
Avyāyāma	-	+	-	-	-
Alāsyā	-	+	-	-	-
RātriJāgarana	+	-	-	-	-
<b>Mānasa</b>					
Śoka	+	-	-	-	-
Krodha	+	-	-	-	-
Acintā	+	-	-	-	-
<b>BījaDoṣha</b>	+	+	+	+	-

## 2. ViśeṣaNidāna (Specific causes)<sup>27</sup>:-

The factors that are responsible for the specific type of *prameha* are mentioned in table below

**Table: 6) ViśeṣaNidāna of Kaphaja, Pittaja & Vātaja Prameha<sup>42</sup>:-**

<b>Kaphaja Prameha Nidāna (Ca.Ni. 4/5)</b>		<b>Pittaja Prameha Nidāna (Ca.Ni. 4/24)</b>		<b>Vātaja Prameha Nidāna (Ca.Ni. 4/36)</b>	
<b>Āhāra</b>	<b>Vihāra</b>	<b>Āhāra</b>	<b>Vihāra</b>	<b>Āhāra</b>	<b>Vihāra</b>
Hayānaka, yavaka, cīnaka, uddālaka, naiśadha, itkaṭa, mukundaka,	Mṛjāvarjana, vyāyāmarjana, svapna, śayyā, āsanaprasaṅgaśleṣm a-meda- mūtravardhaka.	Uṣṇa, amla, lavaṇa, kaṣāya, kaṭu, ajīrṇa, bhojana,	Atapa, agnisantap a, śrama, krodha.	Kaṣaya , kaṭu, tikta, rukṣa, laghu, śīta	Vyavaya, vyayama viśāmaśarira, vamanavirecanaatiyog a, āsthapana, śiro- virecanaatiyoga, vegasandharana, anasana, abhigata,

<p><i>mahāvrihi,</i> <i>pramodaka,</i> <i>navānna,</i> <i>sarpiṣmataṁ,</i> <i>nava, hareṇu,</i> <i>māmsasūpya,</i> <i>grāmya,</i> <i>ānūpa,</i> <i>audakamāmsa</i> <i>, śāka, taila,</i> <i>palala,</i> <i>piṣṭānna,</i> <i>payah,</i> <i>kṛśara, vilepi,</i> <i>kṣīra,</i> <i>madhya,</i> <i>śleṣma, meda-</i> <i>mūtra,</i> <i>vardhaka,</i> <i>mandakadadh</i> <i>i,</i></p>		<p><i>viśāma,</i> <i>āhāra.</i></p>			<p><i>ātapa, udvega, śoṇita,</i> <i>atiseka, jagaraṇa.</i></p>
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**SPECIFIC ETIOLOGY (NIDĀNA) OF MADHUMEHA<sup>28</sup>:**

Above stated factors are responsible for *prameha* in general, now here exact etiological factors of *madhumeha* are discussed as below.

Description of *madhumeha* in specific is available in the *CarakaSamhitā*. *Nidānaofmadhumeha* mentioned in *CarakaSūtra-17 adhyāya* narrated is arranged below:

**Table: 7) DetailedApathyajaNidāna of Madhumeha:-**

<i>Āhāra</i>	<i>Vihāra</i>
<p><b>Excessive intake of –</b></p> <ul style="list-style-type: none"> <li>• <i>Guru</i></li> <li>• <i>Snigdha</i></li> <li>• <i>Amla</i></li> <li>• <i>Lavaṇa</i></li> <li>• <i>Navānnapāna</i></li> </ul>	<p><b>Excessive indulgence in-</b></p> <ul style="list-style-type: none"> <li>• <i>Nidrā</i></li> <li>• <i>Āsyāsukha</i></li> </ul> <p><b>Not use of –</b></p> <ul style="list-style-type: none"> <li>• <i>Vyāyāma, Cintā</i></li> <li>• <i>Samśodhana</i></li> </ul>

**THESE NIDĀNA CAN BE CATEGORISED AS FOLLOWS:-**



**A. APATHYA:-**

1. *Āhār*
2. *Vihār*
3. *Auṣadhi*

**B. SAHAJA:-**

1. *Bīja-bhāga* / *bīja-bhāgavayavadosha*.
  - a). *Mātrjabhāva*.
  - b). *Pitrjabhāva*.

**C. GARBHAJA**

1. *Annarasaja*.
2. *Sātmyaja*.

**D. ŚĀRĪRIKA:-**

1. *Doṣha, dhātu, agni, srota*.
2. *Dehaprakṛti*.

**E. MĀNASIKA****F. NIDĀNARTHKAR- ROGA****G. ANYANIDĀNA (Risk Factors)****A. APATHYA****1. ApathayakarĀhāra (Diet)**

The diet which stimulates *kaphadoṣha*, is includes under *apathyakarāhāra* for *prameharoga*. Along it the use of *dadhi* (curd), meat soups (*māmsarasa*) made up of aquatic, domestic & marshy animals, milk, various milk products, jaggery products are the particular etiological factors of *prameha*. Intake of *śīta*, *guru*, *snigdha*, *madhuraāhāra* in extreme amount for longer period leads to the disease. The detailed description the above factors causing *prameha* is given below.

**Dadhi (curd):-**

*Abhiṣyandi* nature of curd causes obstruction in *rāsavahasrotasa* causing *kaphaja* diseases & *rakta pitta*. Henceforth it is contraindicated in disease *raktapitta* & disease of *kapha*. *Guru* nature of *dadhi*

takes longer time for its digestion producing *apakvarasadhātu*, which all over again produces *avarodha* in *rāsavahasrotasa*.

**Meat (Grāmya&Ānūpa):-**

The meat of animal which are domestic, water bodies are heavy to digest i.e. *guru*, *drava*, *abhiṣyandi* in nature, this cause *agnimāndya* after ingestion. *Apakvarasa* is the product of indigestion. *Agnimāndya*, vitiate *kapha* & *meda* are main ingredients forming pathogenesis of *prameha*. Cows, buffaloes, sheeps, elephants, pigs, deers, goats etc. are the animal that come under *ānūpavarga*. Various fishes, tortoise, crabs etc. are form *audakavarga*. A higher consumption of red meat and its products may aggravate hyperinsulinemia and insulin resistance in non-diabetic people.<sup>29</sup>

**Payāmsi:-**

This group includes milk & various milk products, which are *madhura*, *snigdha*, *guru*, and *śīta* in nature & are *kaphakara*. According to *sāmānya-viśeṣa* principle these increase *kapha*, *meda* & *māmsa*.

**Navānnam:-**

Cereals within one year from their harvesting, is called *navānnam*. These are *abhiṣyandi* & take longer time for the digestion and causes of *āma -rasa dhātu* & *kleda*. These two cause *avarodha* in *srotasa* causing excessive formation of *kleda*

**Navapānam:-**

*Navapānam*, i.e. new liquor is *guru*, vitiates *tridosā*. Old liquor is *laghu*, *dīpanīya*, *rocanīya* & removes obstacle in the *srotasa*, while *navapān* is cause of *srotasa* obstruction. Alcohol worsens

glucose tolerance in the elderly and in diabetics. Diabetics who drink alcohol have a high risk for eye and nerve damage. Excess intake of alcohol leads to *madātyaya*, where degradation or inactivation of qualities of *oja* is brought about by excess intake of alcohol, which has the properties exactly opposite to that of *oja*<sup>30</sup>. This leads to the hampering of functions of higher faculties of brain like perception, memory, and speech etc.<sup>31</sup>

#### **Guḍavikṛti:-**

New jaggery is *kaphakara* & increase *medodhātu*. Even all the products of jaggery are *kaphakara* and are etiological influences of *prameha*. A person that increases consumption of *madhura*, *sthira*, *guru*, *snigdharasa* & nutritious food in excessive amount causes obstruction of *medovahasrotasa* by *apakvāhārasa* & also makes *vikṛtamedodhātu*.

#### **2. Apathya Vihāra (behavioral patterns):-**

Inactivity, idle sitting (*āsyāsukham*), excessive amount of sleep even in day time (*svapnasukham*), avoidance of physical exercise (*karmadveṣi*), avoidance of body cleaning (*snānadveṣi*), prevention of *śodhanakarma* (bio-purification of body) and all regimens which increasing *kapha*, *meda* & *mūtra* are the etiological factor of *prameha*. Few of the main *vihāra* are described below:

##### **a. Āsyāsukham:-**

Idle sitting / too much sitting, avoiding physical exercise, taking extreme rest, enjoying extreme automobiles, regular long sitting, watching TV & movie for a prolonged time & suppression of natural urges. The physical activity leads to muscle contraction that helps in the

absorption of sugar by the cells regardless of the level of insulin resistance. But lack of physical exercise makes a person more dependent upon insulin for the absorption of sugar.

##### **b. Svapnasukham:-**

Calories expenditure may be about 1 kcal/minute during sleep. If a person increase sedentary lifestyle or upsurge his calorie intake by 200kcal/day (10% increases) after one year he will accumulate 73000 extra kcal. A pound of adipose tissue (450 gm) which is 90% triglycerides by mass, has a calorie equivalent of about 3500 kcal.

##### **c. Snānadveṣi:-**

During bathing person do certain exercise in rubbing & cleaning process. When an individual do not take bath this consume energy is conserved and fat is accumulated. The person becomes susceptible to infection. Hence these causes vitiate *kaphadoṣha* & *medodhātu*. Altogether the *apathyavihāra* responsible for the increase of *kapha* & *meda* are also the etiological factors of *prameha*.

#### **3. Auśadhi:-**

*Kaṣāyapa* said that *āhāra* is the *mahābhaiṣajyam*, thus all *āhāra* *jaṭetu* responsible for *prameha*, comes under this group. Alternative cause of *prameha* is avoidance of *śodhanakarmā*. *śodhanahave* properties to purify the bio-products of the body, it opens the *srotasa* & expel out the vitiated *doṣha* from the body.

#### **B. SAHAJA**

##### **BījaDoṣha (Genetic factors):-**

The genetic factor which is responsible for diabetes as etiology; have been called as *bījadoṣha*. *Caraka* & *Suśruta* first revealed about the



role of hereditary factors in “seedling”. These place the foundation of disease at the union of *śukra&śonita* (sperm & ovum) and this also influenced by *rasaja&sātmyabhāva* (diet & energy expenditure by mother). When mother or father or both or grandparents does *pramehaapathya*, they will develop *prameha*, for the reason that the environmental factors can change the genes. This will have *bījadoṣha*.

**BījaDoṣha is of two types<sup>32</sup>:-**

1. *Bīja-bhāgaDoṣha* (chromosomal deformity)
2. *Bīja-bhāga-avayavadoṣha* (mutant genes)

When the “*bījabhāga*” of a specific “*aṅga-aṅgāvayava*” is deformed, the organ formed from that *bījabhāga* will also be deformed or ill formed.<sup>33</sup>

**a. Mātrjabhāva:-**

Organs & organelles like liver; *kloma(pancreas)*, kidney, urinary bladder, *vasā*(adipose tissues), muscles, stomach, intestine etc. are originated from *mātrjabhāva*.<sup>34</sup>

**b. Pitrjabhāva:-**

*Sirā, dhamani, śukra*(semen), bone, teeth etc. are *pitribhāva*.<sup>35</sup> Some deformity found in these organelles. The mutant genes have diabetogenic properties, are transferred from father to offspring through *śukra* that have sperms.

**C. GARBHAJA BHĀVA**

**1. AnnarasajaBhāva:-**

*Prameha* is caused by indulgence of mother in sweets food during pregnancy<sup>36</sup>. *Caraka* has mentioned consumption of *madhuraāhāra* during pregnancy by mother; the child will

develop *prameha* in future.<sup>37</sup> Excess consumption of *godhā* meat during pregnancy by mother will reason of *śanairmeha*.<sup>38</sup>

**2. Sātmyajabhāva:-**

*Ārogya, Bījasampatta, Anālasya* etc,<sup>39</sup> is depends upon *sātmyabhāva* & these *bhāva* are affected in diabetes mellitus.

**D. ŚĀRĪRIKA HETUS**

It is dealt in detail at *samprāpti* part.

**E. MĀNASIKA HETUS**

*Acintā, karmadveṣi, snanadvēshi*<sup>40</sup> are *mānasabhāva*, which are also the causes of *prameha* & it acts as a pre-disposing factor.

*ĀcāryaCakrapāṇi* explains *acintā* as a cause of *br̥mhana*. According to *Caraka*, *acintā* is reason of *sthaulya*.

Even worry, grief, anger, stress, depression & anxiety are said to be among the causative factors of diabetes in susceptible individuals. Depressed individuals are more likely to engage in unhealthy behaviors, such as smoking, drink more alcohol, eating unhealthy diet, leading a sedentary lifestyle, may forget or not have time to check their glucose levels and being non-cooperative with medical treatment, which may increase their risk to developing metabolic syndrome. Depression may lead to body changes that predispose them to metabolic syndrome.

In populaces with Type-2 diabetes, psychological stress often raises blood glucose levels because stress hormones alter blood glucose levels directly.

**SAMPRĀPTI**

A manifested disease is the result of pathogenesis following coverage to

etiological factor. The term '*saṁprāpti*' refers to the phenomenon of pathogenesis precipitated by way of aggravation and vitiation of *doṣha*. The pattern and nature of which may be according to the etiological factors responsible for the particular *doṣha* vitiation. The vitiated *doṣha*, when find a appropriate faulty part or organ of the body (*kha-vaiguṇya*), localize and stagnate and as such find an opportunity to interact with the local tissues. The vitiated *dhātu* are also known as '*dūṣyā*'. Hence '*doṣha-dūṣyāsammurcchanā*' is the genuine disease process. This interaction leads to development of a special set of clinical manifestation which is joint product of vitiated *doṣha*.<sup>41</sup>

The process by which *doṣha* are vitiated by different *nidāna* & move in the body thus disturbing *dūṣyā* & producing the disease is called *saṁprāpti*. *Jāti* and *āgati* are synonyms.<sup>42</sup> In depth knowledge of *saṁprāpti* is essential for *cikitsāka* because it explains site, etiological factors, influencing factor, and prognosis. Line of treatment can be decided only after understanding of *saṁprāptivighatana*.

In the human body, the incidence of disease or severity or mildness, non-occurrence of disease depends on the condition of *nidāna* (etiological factors), *doṣha* (*vāta-pitta-kapha*) and *dūṣyā*.

#### **CHIKITSĀ:-**

As *prameha* is *chirakari* in nature and so as standard of *cikitsā*, *Caraka* mentioned *nidān-parivarjana*, is the key component of the line of treatment.<sup>43</sup>

#### **CIKITSĀSUTRA (PRINCIPLES OF TREATMENT)<sup>44</sup> :-**

*Carakācārya* reflects two types of patients; one is that with stout body structure & with strength i.e. *balavān* and the other without strength & *kṛśa* i.e. *durbal* (weak). *Suśrutācārya* also says that *sahajameharogi* will be *kṛśa* & *apathyanimittajarogi* will be *sthūla*.

If the patient is weak the *brihāmanacikitsā* should be followed. If patient in *balavān* then *saṁśodhanacikitsā* should be followed as per described in *kalpasthāna*. Then *saṁtarpaṇa* should be used as only *apatarpāna* or *saṁśodhana* stimulate further *vātadoṣha* vitiation which will be challenging to alleviate.

Again, *caraka* describe *cikitsā* according to *doṣha* involvement –

Analyzing *kleda-meda-kaphavṛddhi* physician should treat *kaphaja* and *pittajaprimeha* through *apatarpāna*. While in *vātolaṅghaprimeha* earlier said pattern should be followed *dhātukṣayajanyavātajaprimehi* should be left as it is incurable.

#### **UPADRAVA (COMPLICATION):-**

*Upadrava* happen after the disease is fully developed, they depend (*āshraya*) on the main disease. It may be mild or severe but it occurs after the main disease so it is called '*upadrava*'.<sup>45</sup> The disease is called *pradhāna* and *updrava* is *vyādherguṇabhūta* (*apradhāna*). The *upadrava* may subside when main disease gets cured.

*Upadrava* is more agonizing because it happen in even now debilitated body by the main disease. *Upadrava* occurring in a body very debilitated are very grave so they should be immediately treated. The *doṣha* which

started the disease are also responsible for the *upadrava*.<sup>46</sup>

*Prameha* patient dies usually due to *pramehaupadravas*. in describing *pramehaupadravacaraka* view point is different from *suśruta* and *vāgbhaṭa*. *caraka* enlisted the *upadrava* in brief and made it generalized for all types of *prameha*, while *suśruta* and *vāgbhaṭa* described them with modifications and in categorized manner i.e. they classified them according to *doṣha* predominance.

#### **SĀMĀNYAUPADRAVA(GENERAL COMPLICATION):-**

*Caraka* has described following *upadrava* of *prameharoga*<sup>47</sup> -

1. *Trṣṇa*(Polydipsia)
2. *Atisāra* (Diarrhoea)
3. *Jvara* (Fever)
4. *Dāha*(Burning sensation in hands and feet)
5. *Daūrbalya* (Weakness)
6. *Aruci* (Anorexia)
7. *Avipāka* (Indigestion)
8. *Pūtimamspidika* (Carbuncles)
9. *Alaji* (Boils)
10. *Vidradhi* (Abscesses)

These signs and symptoms are present due to the prolonged existence of the untreated *Madhumeha*.

#### **VIŚEṢAUPADRAVA (SPECIFIC COMPLICATIONS):-**

*ĀcāryaSuśruta* and *Vāgbhaṭa* have divided the *upadrava* according to *doṣha*. *Upadrava* also occurs due to further vitiation of the *doṣha* and that presents with *doṣikupadrava* they are:

#### ***Kaphajameha – Upadrava*<sup>48</sup> :-**

If *kapha* gets triggered further end result to *upadrava* of – *arocaka* (anorexia), *avipāka* (indigestion), *kaphapraseka*

(salivation in mouth), *chardi* (vomiting), *nidrā* (excess sleep), *kāsa* (cough), *śvāsa* (breathlessness), *alāsyā* (tieredness), *māmsopacaya* (weight gain), *pratishyaya*(sinusitis), *saithilaya* (looseness in body), and *makshikopsarpānam* (files get attracted towards urine, sweat of *prameha* patient).

#### ***Pittajameha - Upadrava*<sup>49</sup> :-**

If *pitta* gets aggravated further result to *upadrava* of – *bastimehanayotoda* (pain in bladder and urinary path), *muṣkāvadaraṇam* (pain in testes), *jvara* (fever), *dāham* (burning sensation), *pipāsā* (thirst), *amlīkā* (acidity), *mūrcchā* (unconsciousness), *viḍbhedanam*, *atisāra* (loose motion), *hṛdayaśūla* (pain in heart region), *nidrānasam* (loss of sleep), *pāṇḍuroga* (anaemia), *pītaviṇmūtratā* (yellowish discoloration of urine and stool), and *daurgāndhya* (foul smell to body).

#### ***Vātajameha – Upadrava*<sup>50</sup>:-**

If *vāta* develops aggravated further result to *upadrava* of – *udāvartam* (upward movement of *vāta*), *kāmpāna*(tremor), *hṛdgraham* (gripping pain in chest region), *lolatā* (affinity), *śūlam* (pain), *anidrā* (loss of sleep), *śoṣa* (wasting), *kāsa* (cough), *śvāsa*(difficulty to breath), *baddhapuriṣatva*(constipation), *daūrbalya*(weakness), *sthambha*(stiffness).

#### ***Upadrava Specifically related to Madhumeha:-***

*Caraka* described that ‘*sapta-piḍakā*’ occurs as *upadrava* of *madhumeha*. *upadrava* is results of negligence of the *madhumeha* i.e. not following do and don’t and improper

treatment, this may also due to vitiation of *dushtamedā*.<sup>51</sup>

*Suśruta* opined that *madhumeha* if occurs with *piḍakā* is *asādhyā* and makes it

incurable. *Piḍakā* happens due to vitiation in all three *doṣha* and also by vitiation of *meda* and *vasādhātu*.<sup>52</sup>

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