

“Review article of Prameha (Diabetes)”**** Dr. Sunil M Hulsure * Dr.Nitin Urmaliya**

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Abstract: The present paper is based on Ayurvedic disease “Prameha.” Here we can compare it with modern disease “Diabetes”. In the ancient Ayurvedic texts Prameha is considered as a syndrome that includes clinical conditions involved in obesity, prediabetes, diabetes mellitus, and metabolic syndrome. The factors that contribute to the production of prameha would impair all three doshas, namely Vata, Pitta, and Kapha. According to Charaka Prameha is a Kulaj Vikar (Hereditary) and Jataj Prameha (Juvenile diabetes) is Incurable. Dosh Dushya Sangraha of Prameha is as- Dosh- Kapha, Pitta, Vata. Involved Dushya are Rasa, Rakta, Mamsa, Meda, Majja, Shukra, Oja, Ambu, Vasa, and Lasika as mentioned in Ashtomahagada. Prameha in ayurveda is syndrome which includes the condition which refer to alter the urine metabolism in terms of frequency of micturition, quality, color and quantity of urine. It also associated with obesity, prediabetes, diabetes mellitus, and metabolic disorders. There are many references for Ayurvedic management of Prameha that we have to apply in modern time. Finally main intention for presenting this paper is to share basic details of Prameha for proper Treatment.

Key words – Prameha, Tridoshaja, Doshaja, Syndrome, Kaphaja vikar etc.

Introduction:- In Ayurveda, there is description of many diseases and their management as well as lifestyle for healthy living. Prameha is one of the disease which has frequent urination. It can be correlated with Diabetes in modern science. Prameha is a Tridoshaja Vyadhi (a disease involving all three of the psychophysiological principles known as Doshas [i.e., Vata, Pitta, and Kapha]), it is basically a disease with Kapha predominance. There are 20 subtypes of Prameha due to the interaction of the three Doshas and 10 Dushyas (disturbed functioning of the principles that support the various bodily tissues); several of these subtypes have sweet urine, whereas some of them have different coloration of the urine, highlighting the inflammatory conditions involved in the metabolic syndrome. This disease has close ties to Sthaulya (i.e., obesity). With regard to diabetes mellitus, Sahaja Prameha and Jatah Pramehi correlate with type 1 diabetes; Apathyanimittaja Prameha correlates with type 2 diabetes. Madhumeha is a subtype of Vataja Prameha (Prameha with Vata predominance) that can occur as the terminal stage of type 2 diabetes (in which insulin is required), or as type 1 diabetes beginning in early childhood. The latter is defined as Jatah Pramehi Madhumehino in Charaka Samhita, one of the classical Ayurvedic texts.

Materials & Method:-

All Ayurvedic and Modern literature related to Prameha.

Details are as follows –

Ayurvedic view

Etymology : The very **first reference** of “**Prameha**” is found in the Vedas of India. The word **Prameh** means “**to flow**” which is derived from the Sanskrit dhatu ‘mih-sarane’. The Atharva Veda is considered to be first to describe this topic, and is mentioned in Kausika-Sutra. According Ayurveda , the word Prameh is derived from ‘mih- ksharne dhatu’ with ‘pra’ pratyā & ‘ghaj’ upsarg.

The word Prameha means excessive micturition of malformed urine. There are some similarities in Prameh and Diabetes as far as causing factors, clinical presentation and to some extent therapeutic aspects are concerned. Which we will discuss here further. “Prakarsena Prabhutam Pracuram Varam Varam Va MehatiMutratvagam Karoti Iti Pramehah” || Ma. Ni. 33/1 ||

Prameha is a syndrome i.e. group of symptoms, includes all clinical conditions which are characterized by increase in quantity of urine with or without the increased frequency of urination. Turbidity in the urine & poly urea are the two essential features of this disease Diabetes Mellitus is disease which is associated with Hyperglycaemia with or without glycosuria which due to defective insulin process , characterized by poly phagia or poly urea & poly dyspsia. Prameha is the repeated (Prakarsha) excessive (Prabhoota) and turbid urination, in terms of quantity, frequency and clarity. The term ‘Pra’ means abundant, and ‘Meha’ means ‘passing of large quantity of Urine’. “Diabetes” term has been derived from the Greek term ‘Diabainein’. Which meaning ‘to cross through a siphon’ means continuous free flow of water and it is applied to means of elimination of large quantity of Urine. Therefore we can say the words ‘Prameha’ and ‘Diabetes’ carry comparable meaning.

Also the terms **madhumeha** and diabetes mellitus are similar to **madhu** and mellitus **means honey** and hence, madhumeha & diabetes mellitus meaning is to passing of large quantity of sweet urine. Diabetes Mellitus is characterized by **hyperglycaemia** may be due to the deficiency of Insulin or not effective use if insulin by cells. The disease is kept among the endocrinal and metabolic disorders with endocrinal involvement leading to metabolic derangement.

Two main types of Prameha are described – sahaja and doshaja. Sahaja refers to natural, which are originated due to the precipitating factors from the inherited or congenital factors. Doshaja are the results of dosha vitiation. According to the clinical point of view prameha is classified as 1. Sthool premah (urinary disorder of stouts) 2. Krisha premah (urinary disorder of lean)

What causes premah : As per some factors Kapha dosha is dominantly aggravated with other Dosha which create some effects on medas (fat), mamsa (flesh), udaka (lymphatic channels , endocrinal secretion) etc .. and

because of the problem in digestion the affiliated dhatus and their derivatives moves towards the urinary system which in turn causes premeah. Now the symptoms of disease is shown as per the doshas involvement it's degree of affliction and gradation of illness based on which further classification is done.

Due to vitiation of three dosha, (any of) twenty types of *prameha* could occur. However, there may be innumerable other variations of the disease. We shall now explain the ways in which vitiation of the three dosha leads to the manifestation of the various types of *prameha*.

Classification of Prameha : Prameha has been classified into 3 form that is

1. Kaphaja Prameha - Prameha manifested due to the contamination and morbidity caused by morbid Kapha. This is of 10 types. These Prameha's are curable. Most of the symptoms of Kaphaja Prameha are limited to contamination of urine by kapha, change in consistency, quality and quantity of urine.

Etiology of Kaphaja Prameha

Etiological factors (especially *kapha*-dominant ones), *doshas*, and *dushyas* mentioned in the preceding verses can trigger the manifestation of *kaphaja prameha*. The aggravated *kapha* spreads all over the body quickly because of flaccid muscles and fatty tissues. The *kapha* blends quickly with the *medas* (fat) – primarily because the fats typically are excessive in quantity and viscous and soft in "favorable" body conditions but also because *kapha* and *medas* share identical qualities. As *kapha* itself is vitiated, it vitiates *medas* in the process. The vitiated *kapha* - *meda* then mixes with *mamsa* (muscle tissues) and *kleda* (moisture/body fluid), in as much as these two are supposed to have already exceeded their quantity. Vitiation of the muscle tissues provides a congenial atmosphere for the manifestation of putrified carbuncles (*pidika*) like *sharavika* and *kacchapika* in the muscle. The liquid *dhatus* in the body get further vitiated and transformed into *mutra* (urine). *Vrikka* (kidney) and *basti* (urinary bladder) are at the two ends of the channels carrying urine; the openings of these channels get affected by *meda* (fat) and *kleda*. The vitiated *kapha* obstructs the openings of these channels. This results in the manifestation of *prameha* which becomes chronic or incurable due to the affection of all qualities of *kapha* and simultaneous vitiation of homogenous and heterogenous *dhatus*. Fluids of the body (*kleda*) along with *kapha* and *medas* (fat) enter the *vrikka* (kidney) and *basti* (urinary bladder), transforming into *mutra* (urine). During this process, they acquire the morbid qualities of *kapha*, viz, white, cold, particulate, slimy, transparent, unctuous, heavy, sweet, dense, clear and slow. The morbid conditions are named after these qualities, one or many of which may dominate the process of pathogenesis.

Specific Features of Types of Kaphaja Prameha

The specific features of different types of *kaphaja prameha* are as follows (in verses):

1. In *udakameha* the individual passes large quantities of water-like urine which is transparent, white, cold and without any smell.

2. In *iksualikarasameha*, the patient passes urine resembling sugarcane juice which is exceedingly sweet, cold, slightly saline, and turbid.
3. In *sandrimeha*, the viscosity of urine of the individual increases when kept overnight.
4. In *sandrprasadameha*, the urine of the patient become partly viscous and partly clear when kept overnight.
5. In *suklameha*, the patient passes urine having opaque, white color like that of pasted flour.
6. In *shukrameha* patient passes semen-like urine or urine mixed with semen.
7. In *sheetameha*, the patient gets frequent micturition which is exceedingly sweet and cold.
8. In *siktameha*, vitiated *doshas* pass with urine in the form of small gravels.
9. In *shanirameha*, the patient passes small quantity of urine with difficulty and very slowly.
10. In *alalameha*, the patient passes urine which is phlegm-like and slimy as if full of threads.

2. Pittaja Prameha When morbid Pitta gets involved in the pathogenesis, the disease becomes difficult to handle as inflammatory changes in various tissues set in with more systemic symptoms getting manifested. Pittaja Pramehas are said to be 6 in number. *Pitta* gets immediately aggravated in an individual whose body is pre-conditioned by abovementioned (verse 5) factors and exposed to factors such as the following:

1. Intake of hot, sour, salty, alkaline and pungent foods;
2. Intake of food before the digestion of the previous meal;
3. Exposure to excessively hot sun, heat of the fire, physical exertion and anger; and
4. Intake of mutually contradictory food articles.

The aggravated *pitta* following the same pathogenic process (as mentioned for *kaphaja prameha*) and manifests into one of six types of *pittaja prameha*. The process of manifestation is quicker than that of *kaphaja meha*.

Specific Features of Types of *Pittaja Prameha*

All these types of *prameha* are palliable (but not fully curable) because the loci of vitiated *medas* in the pathogenesis of this disease are closer to those of the affected *doshas* and the treatment of *pitta* and *medas* is in mutual contradiction.

The specific features of different types of *prameha* caused by *pitta* are given below:

1. In *ksharameha* the patient passes urine having the smell, color, taste and touch similar to those of alkalies.
2. In *kalameha* the patient passes large quantities of black or dark urine.
3. In *nilameha* the patient passes urine having sour taste and color like that of the feather of the blue jay.
4. In *raktameha* the patient passes urine having red color, saline taste and smell like that of raw fish.
5. In *manjisthameha* the patient passes urine frequently, and the urine smells like raw flesh and looks like the juice of *manjistha* (*Rubia cordifolia* Linn.).

6. In *haridrameha* the patient passes urine having pungent taste and color like that of the juice of *haridra* (*Curcuma longa* Linn.).

3. *Vataja Prameha* - As all the *Prameha*'s are considered to be ending up with *Vata* predominance when not attended or treated properly on time. Involvement of *Vata* in pathogenesis of *Prameha* indicates complicated stages. *Vataja Prameha*'s are manifested with predominance of tissue destruction or depletion, deteriorating immunity and multiple organ failure. All *Vataja Prameha*'s ultimately end up manifesting as *Madhumeha* (the end stages of Diabetes Mellitus). This sets up a bad prognosis to the disease, putting it out of context of getting it cured. The disease has now become impossible to handle.

Etio-pathogenesis of *Vataja Prameha*

Vata gets immediately aggravated in an individual whose body is pre-conditioned by above mentioned (verse 5) factors and exposed to the following factors:

1. Excessive intake of astringent, pungent, bitter, rough, light and cold things;
2. Excessive indulgence in sex and physical exercise.
3. Excessive administration of emesis, purgations, *asthapana* type of enema and *shirovirechana* (elimination of *doshas* from the head), and
4. Suppression of the manifested urges, fasting, trauma due to assault, exposure to sun, anxiety, grief, excessive bloodletting, staying awake at night, and irregular posture of the body.

The aggravated *vata* spreads throughout the body, and along with *vasa* (muscle fat), enters the ureter leading to the manifestation of *vasameha*. When it carries marrow to the urinary bladder, it results in *majjameha*.

Due to the large quantity of *lasika* (lymphs) in the body and also due to the property of *vata* to dissipate things, *lasika* entering the urinary bladder produces large quantity of urine, causing a continuous urge for micturition and, thus, passing copious amounts of urine continuously (even) without any pressure, like an elephant (*hasti*) gone amuck. Thus, this is also known as *hastimeha*. *Ojas* is, by nature, of sweet taste. However, its roughness causes *vata* to convert it into an astringent tasting element. This *vata*-afflicted *ojas*, when gets into the urinary bladder, causes *madhumeha*.

Criteria for diagnosis

Different types of *prameha* are characterized by the color, taste, touch and smell of the respective *dosha*. *Vatika* varieties of *prameha* are characterized by grayish or reddish coloration of the urine, pain and attributes of *majja*, etc. These types of *vatika prameha* are incurable.

Different categories of *prameha* are described to possess the color, taste, touch, and smell of the respective *doshas*. For example, in *kaphaja prameha*, the urine is characterized by white color, sweet taste; cold touch and *ama gandha* (smell like that of flesh). In the same way, the characteristic features of *pittaja prameha* are to be determined. *Vayu* itself is colorless. Therefore, different varieties of *vata* dominant *prameha* are characterized by grayish or reddish color of urine as a result of the *prabhava* (specific action) of the *vayu*.

Vata dominant prameha is already described to be incurable (asadhya). Again repeating the statement regarding its incurability implies that the presence of several symptoms including the grayish and reddish coloration of urine right from the origin of disease is incurable; and if these signs and symptoms appear at later stage, then the condition is incurable. In the latter type, attributes of majja etc., need not to be present. Alternatively, it can be explained that when at a later stage, any type of prameha gets associated with vayu and characterized by grayish and reddish coloration of urine, and then it also becomes incurable. In addition when kaphaja and pittaja types of prameha are associated with the passage of majja etc., in the urine, they become incurable. It is stated, “All types of prameha, if not treated in time, leads to madhumeha and become incurable”

Complications

| | | |
|----|-----------------------------|---------------|
| 1. | Thrishna | (thirst) |
| 2. | Atisara | (diarrhoea) |
| 3. | Jwara | (fever) |
| 4. | Daha | (burning) |
| 5. | Dourbalya | (debility) |
| 6. | Aruchi | (anorexia) |
| 7. | Avipaka | (indigestion) |
| 8. | Pootimamsa (bad odour) etc. | |

Poorvarupa (prodromal symptoms) of prameha :

For prameha, these symptoms include excessive sweat, body odor, laziness, inclination towards rest, presence of excessive malas (waste products) in the eyes, ears, teeth, throat, palate, and tongue (buccal cavity), excessive growth of hair and nails, matting of the hair, excessive thirst, a sweet taste in the mouth, a burning sensation in the hand and feet, attraction of insect and ants toward the body and urine, and so on. Diabetes has close relationship to conditions within the oral cavity. It leads to adverse changes in gums and periodontal tissues: effects that may be evident even before clinical diabetes is recognized and diagnosed. Periodontal diseases are associated with higher levels of insulin resistance and are often a precursor of type 2 diabetes as well as with the higher levels of glycated hemoglobin. These findings may relate to the prodromal symptoms of excessive excretion of malas in the buccal cavity. A sweet taste in the mouth is a prodromal symptom that may be explained by the presence of glucose of saliva. If blood glucose levels are high, glucose is also present in the saliva, which can increase cavities and increase the risk of oral candidiasis.

A burning sensation in the hands and feet is an important feature of neuropathy that results from diabetes mellitus. Excessive sweat as a consequence of obesity may result in bacterial growth that leads to body odor. Excessive thirst may be directly related to disturbed glucose metabolism. Thus, the symptoms described in the poorvarupa of prameha include prediabetic symptoms and the early manifestation (vascular changes, obesity, etc.) of diabetes or subclinical diabetes.

Chikitsa : Prameha chikitsa in ayurveda include different type of treatment according to (bala) strength of patient along with strength of disease or dosha.

Kaphaj Prameha is easy to cure, but Pittaj Prameha is difficult to cure and vataj Prameha is not curable only treatment can help to some extent.

The patient of prameha (diabetes) should be given mild oleation therapy in the beginning itself and then administered medicated oil prepared with drugs of priyangvadi gana to produce more bouts of both vomiting and purgations called Vamana and virechana.

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1. After purgation, decoction **basti** (medicated enemas) should be administered using decoction of drugs of **surasadi gana**, added with paste of mahausadha, bhadradaru, musta, honey and saindhava; if this produces burning sensation, the decoction of drugs of nyagrodhadi gana should be used without adding oil. In diabetes which have predominance of vata – oil drinking is to be done especially. Decoction of following eight drugs added with honey and consumed, cures the following kinds of diabetes respectively. **Parijata** cures **udaka meha**
2. **Jaya** cures **iksumeha**
3. **Nimba** cures **surameha**
4. **Vahni (citraka)** cures **siktameha**
5. **Gayatri (khadira)** cures **Sanairmeha**
6. **Patha** cures **ksarameha**
7. **Aguru** cures **pistameha**
8. **Two haridra and Sarada (sweta kamala)** cures **sandrameha**.

The ten decoctions prepared from drugs mentioned in quarter part of the following verses, added with honey and consumed **cure prameha of kapha origin**.

1. Haritaki, katphala, musta and lodhra
2. Patha, vidanga, arjuna, and dhanvana
3. The two haridra, tagara and vidanga
4. Visala, kanda, arjuna and dipyaka(ajwain)
5. Darvi, vidanga, khadira and dhava
6. Surahva, kustha, aguru, and chandan

7. Darvi, agnimantha, triphala and vaca
8. Patha, murva and Svadamstra(gokhru)
9. Vaca, usira, abhaya and guduchi

10.Vrsa, Siva, citraka and saptaparna.

Modern view of Prameha (Diabetes) :

Generally there are two types of Diabetes like Diabetes Insipidus and Diabetic Mellitus.

Defects in insulin action and hyperglycemia could lead to changes in plasma lipoproteins in patients with diabetes. Alternatively, especially in the case of type 2 diabetes, the obesity/insulin-resistant metabolic disorder that is at the root of this form of diabetes could, itself, lead to lipid abnormalities exclusive of hyperglycemia.

The lipoprotein abnormalities commonly present in type 2 diabetes, previously termed noninsulin-dependent diabetes mellitus, include hypertriglyceridemia and reduced plasma HDL cholesterol. In addition, low density lipoprotein (LDL) are converted to smaller, perhaps more atherogenic, lipoproteins termed small dense LDL. In contrast to type 1 diabetes, this phenotype is not usually fully corrected with glycemic control. Moreover, this dyslipidemia often is found in prediabetics, patients with insulin resistance but normal indexes of plasma glucose. Therefore, abnormalities in insulin action and not hyperglycemia per se are associated with this lipid abnormality. Several factors are likely to be responsible for diabetic dyslipidemia: insulin effects on liver apoprotein production, regulation of lipoprotein lipase (LpL), actions of cholesteryl ester transfer protein (CETP), and peripheral actions of insulin on adipose and muscle.

Causative factors :

1. Overeating of fast food
2. Over intake of sugars
3. Excessive intake of fluids such as milk, alcohol etc.
4. Excessive intake of rice , rice flour , urad Dal , meat , yogurt , kheer etc. Kapha vardhak aahar
5. Excessive intake of ghee and sweet dishes
6. Lack of physical exercise
7. Excessive sleeping
8. Lack of body movement
9. Excessive rest
10. Excessive intake of soup of meat of animals of domestic, aquatic, and marshy regions

Features with Different colors of Urine :-

1.White -

Phosphaturia is usually intermittent, occurring following a meal or after ingesting a large quantity of milk.

Pyuria (abundant white blood cells) in association with an infection of the urinary tract.

White cloudy urine can rarely be due to chyluria (lymph fluid), resulting from a communication with between the lymphatic system and the urinary tract.

2.Red / Pink -

The presence of red cells, free hemoglobin (from broken down red blood cells), or myoglobin (from broken down muscle cells)

Hemoglobinuria - urinary tract infection, urinary stone, or urinary malignancy.

3. Blue / Green -

An inherited form of high calcium (called "familial hypercalcemia") can result in blue urine, which has lent this disease the nickname "blue diaper syndrome". Another metabolic disorder, indicanuria, can cause blue urine due to tryptophan indole metabolites.

4.Brown /Black -

Melanin and melanogen, found in the urine of patients with melanoma, will darken standing urine from the air-exposed surface downward.

Alcaptonia, a rare hereditary disease, the urine will turn dark after being exposed to the air over a period of time due to the presence of homogentisic acid.

Urinary hydroxyphenylpyruvic acid excretion due the metabolic disorder tyrosinosis will also cause urine to be brown-black in color.

In porphyria cutanea tarda, the urine will appear reddish brown in natural light but fluoresces pink under ultraviolet light.

Conclusion:

- **There are many common diseases in present time.**
- Prameha (Diabetes) is one of the common disease.
- So We can cure Prameha (Diabetes) successfully by Ayurveda.

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