

## STUDY OF ETIOLOGICAL FACTOR “GUDAVAIKRUTAM” IN PRAMEHA ACCORDING TO AYURVEDA

Dr. Sachin Gaikwad<sup>1\*</sup>, Dr. Avinash Deshmukh<sup>2</sup> and Dr. Deepali Amale<sup>3</sup>

<sup>1</sup>PG Scholar, Dept. of Roga Nidan, CSMSS Ayurvedic Medical College, Kanchanwadi, Aurangabad, Maharashtra, India.

<sup>2</sup>Associate Professor, Dept. of Roga Nidan, CSMSS Ayurvedic Medical College, Kanchanwadi, Aurangabad, Maharashtra, India.

<sup>3</sup>H.O.D, Dept. of Roga Nidan, CSMSS Ayurvedic Medical College, Kanchanwadi, Aurangabad, Maharashtra, India.

Article Received on  
12 April 2022,

Revised on 03 May 2022,  
Accepted on 24 May 2022

DOI: 10.20959/wjpr20227-24316

### \*Corresponding Author

**Dr. Sachin Gaikwad**

PG Scholar, Dept. of Roga  
Nidan, CSMSS Ayurvedic  
Medical College,  
Kanchanwadi, Aurangabad,  
Maharashtra, India.

### ABSTRACT

Cause effect theory have great importance in *Ayurveda* from first. *Hetu* are given for both Health and disease in *Ayurveda*. Specific *Hetu* have ability to produce particular diseases according to its virtues. Identification of causes is the most important part in any disease especially in lifestyle disorders. Thus to understanding regarding the cause "*Gudavaikrutam*" (Various preparation of sugar and jaggery) of *Prameha* is need of era. *Ayurveda* has a wealth of knowledge regarding Diabetes. If different types of prameha are not managed in due time it may lead to Madhumeha. Diabetes is one of the most rapidly increasing disease in the contemporary context. It's rapid global rise indicates that it's cause is possibly closely associated with the routine

life style and eating habits. DM2 is also possibly the medical condition, which present with a preclinical phase having a possibility of reversal if it's possible causes can be seriously understood and eliminate. *Nidan parivarjan* plays a first step in the treatment of any disease, the study of *Nidan* "*Gudavaikrutam*" (Various preparation of sugar and jaggery) reveals the rich knowledge of the *Ayurveda* in the prevention of *Prameha* and *Madhumeha*.

**KEYWORDS:** *Prameha, Gudavaikrutam.*

## INTRODUCTION

The main objective of *Ayurveda* is restoration, promotion and maintenance of positive health. According to *Maharshi Charak* major causative factor of *Prameha* is *Madhur Rasa* dominant diet mentioned as "*Navannapanam Gudavaikrutam ch Prameha hetu*".<sup>[1]</sup>

*Madhumeha* is one variety of *Vatika Prameha* and is listed in *Mahagada*. due to its severity and chronicity *Ayurveda* consider holistic approach in the management of *Prameha* by *Nidana Parivarjana*, *Shodhana*, *Shamana* and *Pathya Aahar Vihar*. The world is looking towards safe and effective prevention of diabetes. Therefore, it is essential to recognize the potential of *Ayurveda* and *Nidana Parivarjana* plays a first step in the treatment of *Prameha*.

Lifestyle and dietary errors are the major etiological categories described for *Prameha* and *Madhumeha*, which closely resemble with the etiology of diabetes. If different types of *Prameha* are not managed in due time it may lead to *Madhumeha*.

Diabetes mellitus refers to a group of common metabolic disorders that share the phenotype of hyperglycemia.

The effects of diabetes mellitus include long-term damage, dysfunction and failure of various organs. Due to the burden of type 2 diabetes and its complications, much attention has been given to prevention, beginning with identifying at-risk individuals prior to diagnosis. Prediabetes is a potentially reversible stage of the development of type 2 diabetes.

It is said that prevention is better than Cure so while having a treatment we need to know causes of diabetes so that one can prevent its occurrence. The main cause is excess food intake of *Gudavaikrutam* (various preparation of sugar and jaggary) like, *madhur*, *guru* foods, that leads to vitiation of *kapha dosha*, *meda* and *mutra* are the chief factors for *prameha* so there is a need to control by giving attention on *Ahara*. The study of *Nidana* (etiological factors) reveals the rich knowledge of the *Ayurveda* in the prevention of *Prameha* by *Nidana Parivarjana*. The review was done with the aim to study the *Gudavaikrutam Nidana* in *Prameha*.

## Review of *Prameha*

*Prameh* is the most burning health issue in all over the World. *Prameh* is include in *Ashta Mahagad*. The key word in *Samanya nidana* of *Prameha* is the *hetus* which cause *Kapha vriddhi*. *Kapha* is the main *dosha* involved in *Prameha* and hence all those *hetus* that cause

*Kapha vriddhi* automatically become the *hetus* for *Prameha*. All those factors which increase the frequency of *kapha* in the body are said to be causative factors of the disease. *Prameha* is of 20 types based on the type of urination and on the basis of *Dosha* predominance it is categorized namely as *Kaphaja*, *Pittaja* and *Vataja Prameha*.

Different *Gunas* of *Doshas* combined with *Dushyas* to produce a specific type of *Prameha*.

### **Nidana (etiology)**

*Prameha Nidana* is of 2 types<sup>[2]</sup> - *Sahaja*(Hereditary) and *Apathya Nimitaja* (Acquired).

Ayurvedic classics elaborately describe about the general etiological factors of *prameha* and according to *Acharya Charaka*, this disease is *tridoshik* in origin.

*Sahaja* type of *madhumeha* is due to certain defects in *Stri & Pumbheja* (Ovum & Sperm) which is said to be *matrupitru beejadoshakrita* will result in *sahaja prameha*. Regarding *beeja dosha* (genetic disorder) it may have its origin from parents of both father and mother i.e. it may be inherited from generation to generation and hence it is an unique example of hereditary disease mentioned in *Ayurveda*.

*Apathya Nimitaja madhumeha* is due to *Apathyakar ahar vihar sevana*.

### **Etiological Factors of Prameha and Madhumeha**

Twenty types of *Prameha* have been classified into three groups- *Kaphaj*, *Pittaj* and *Vataj*.

According to *Maharshi Charak*, among all three types of *Prameha* *Kaphaj* type is more common and easily producible as compared to *Pittaj* and *Vataj* types.

बहवबद्धंमेदोमांसंशरीरजक्लेदः शुक्रंशोणितं वसामज्जालसिका  
रसश्चौजः सङ्ख्यात इति द्रव्यविशेषाः ॥

- (च. चि. ४/७)

As regards *Dushyas*, *Meda*, *Mamsa*, *Kleda*, *Shukra*, *Shonita* (blood), *Vasa*(fat), *Majja*(marrow), *Lasika* (tissue fluid), *Rasa* (plasma) and *Ojas* (essence of all tissues).<sup>[3]</sup>

All are supposed to be affected in this disease at some stage.

आस्यासुखं स्वप्नसुखं दधीनि ग्राम्यौदकानूपरसः पयांसि।  
नवान्नपान्नं गुडवैकृतं च प्रमेह हेतुः कफकृच्च सर्वम्॥

-(च. चि. ६/४)

The etiological factors described in *Charak Samhita* are -

*Asyasukham* (pleasure stay or living),

*Swapnasukham* (pleasant and calm sleep in day and night time),

Excessive indulgence in *Dadhini* (various preparation of curdin excess quantity).

*Gramya, Audak, Anup Mamsa* ( eating meat of domestic, aquatic, wet land animals),

*Payamsi* (excessive use of milk and its different products or excess sweet products containing more glucose),

*Navannapanam* (Newly harvested grains in daily diet and drinks),

*Gudavaikrutam* (various preparation of sugar and jiggery) and other substances which increases *Kapha dosha* may cause *Prameha*.<sup>[4]</sup>

The person indulging in food substances having *Guru* (heavy to digest), *Snigdha* (oily substances) qualities and excessive indulgence of *Amla* (sour) & *Lavana* (salty) rasa substances excessive sleep, sitting in a same place for longer duration, avoiding exercises and excess thinking or depression.

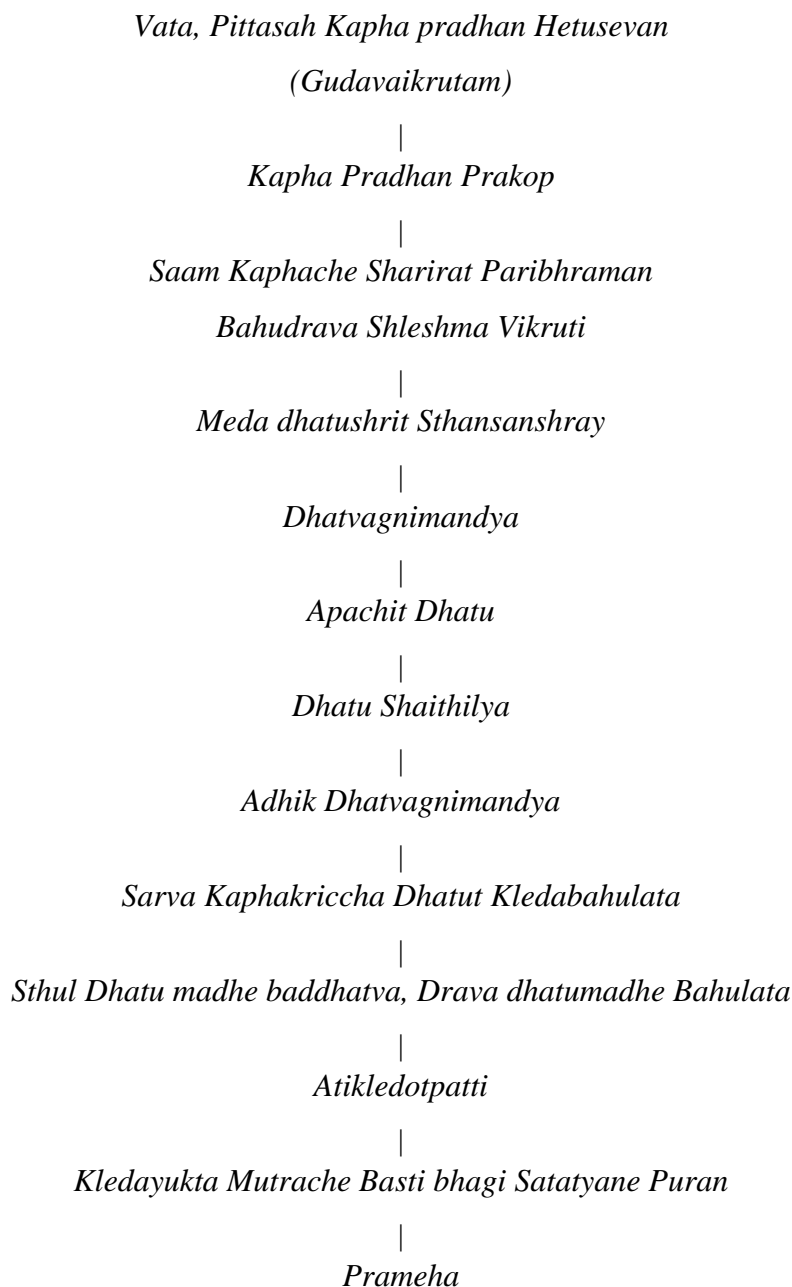
*Acharya Sushruta* narrated the term *Kshaudra meha*, in place of *Madhumeha*. The *Kshaudra meha* is nothing but one of the varieties of *Madhumeha*. So it is clear evidence that *Kshaudrameha* resembles to *Madhumeha*. *Acharya Sushruta* has also narrated that untreated *Prameha* in its initial stage gets converted into *Madhumeha* and becomes incurable.<sup>[5]</sup>

*Maharshi Charaka* mentions that excess intake of *Madhura Rasa* during pregnancy by mother may cause *Madhumeha* and *Sthaulya*.<sup>[6]</sup>

In modern science on the basis of etiological factors mentioned as above by all ancients *Acharyas Madhumeha* can be correlated with Diabetes mellitus(DM). Diabetes mellitus is a group of metabolic disease characterized by hyperglycaemia resulting from defects in insulin secretion, insulin action or both. The chronic hyperglycaemia of diabetes is associated with long term damage, dysfunction and failure of various organs, especially the eyes, kidneys, nerves, heart and blood vessels.<sup>[7]</sup>

The chronic long term complications of the DM are kidney failure, neuritis or diabetic neuropathy, cardiomyopathy, diabetic retinopathy, and atherosclerosis. In DM early symptoms are not observed in the pre-diabetic patients so there is need to do the blood sugar of patients of age above 40 years or those who have the family history of diabetes.

### ***Prameha Samprapti***



### **Pathogenesis of DM2**

In type 2 diabetes these mechanisms break down, with the consequence that the two main pathological defects in type 2 diabetes are impaired insulin secretion through a dysfunction of the pancreatic  $\beta$ -cell, and impaired insulin action through insulin resistance.<sup>[8]</sup> In situations

where resistance to insulin predominates, the mass of  $\beta$ -cells undergoes a transformation capable of increasing the insulin supply and compensating for the excessive and anomalous demand. In absolute terms, the plasma insulin concentration (both fasting and meal stimulated) usually is increased, although “relative” to the severity of insulin resistance, the plasma insulin concentration is insufficient to maintain normal glucose homeostasis. Keeping in mind the intimate relationship between the secretion of insulin and the sensitivity of hormone action in the complicated control of glucose homeostasis, it is practically impossible to separate the contribution of each to the etio-pathogenesis of DM2.<sup>[9]</sup>

### **In Ayurvedic classics the general causes of Prameha are**

All these *Nidana* are of *Santarpanjanya* or *Aavaranjanya Prameha*, as all of these *Nidana* are productive of *Kapha* mainly and *Kapha* is the most important *Dosha* involved in the pathogenesis of *Santarpanjanya* or *Aavaranjanya Prameha*. All these *Nidana* are divided into *Aharaja*, *Viharaja* and *Manasa Nidana*.<sup>[10]</sup>

### **Guna of Guda**

Jaggery is product of sugarcane.

Refined sugar mainly consists of glucose and fructose, jaggery contains glucose and sucrose.

प्रभूतक्रिमिमज्जासृङ् मेदोमांसकरो गुडः॥<sup>[11]</sup>

-(च. सू. २७/२३)

Charaka has given *guna* of *Guda* i.e. *Krimi-Majja-shyonit-Meda-Mamsa vardhak*.

हृद्यः पुराणः पथ्यश्च नवः श्लेष्माग्निसादकृत्॥<sup>[12]</sup>

-(अ. ह. सू. ५/४८)

Vagbhat mentioned *guda* in *Sutrasthana*, fifth chapter, *shlok* 48, (AH.Su 5/48, 49). Naveen

*Guda* is *kaphakarak* and creates *agnimandya*.

फणितं गुर्वभिष्यन्दि चयकृन्मूत्रशोधनम्।

*Phanit* is *Guru*, *Abhishyandi*, cause accumulation of *Tridoshas*, cleanses the urinary tract.

नातिश्लेष्मकरो धौतः सृष्टमूत्रशकृद् गुडः॥<sup>[13]</sup>

-(अ. सं. सू. ६/५३)

*Dhouta Guda* increases *Kapha* and eliminates the urine and faeces.

**Characteristics of Jaggery are**

Moisture 7%, sucrose 70%, total sugar 90%, reducing sugar 20%.<sup>[14]</sup>

Jaggery has a high glycemic index of 84.4, which makes it unfit for diabetics to consume.<sup>[15]</sup>

Jaggery (*gur*) is high calorie sweetener and contains minerals, protein, glucose and fructose.

Jaggery is a form of sugar that gets absorbed rapidly and can spike blood sugar levels.

Sugar sweetened beverages increase the risk of metabolic syndrome and T2DM. not only through increasing adiposity but also by increasing the dietary glycemic load, which causes insulin resistance, Beta cell dysfunction, and inflammation.<sup>[16]</sup>

It is important to mention here that Indians already have higher nonesterified fatty acid [NEFAs], insulin resistance, hepatic Steatosis and dysglycemia than white Caucasians.<sup>[17]</sup>

All these metabolic dysfunctions could be further exacerbated by indirect [through obesity] and direct effects on multiple sweets along with sugar - sweetened beverages and westernized sugar loaded food items, which are now easily available due to globalization.

That's why increasing intake of sugar/ sugar - containing products may parallel the rapid rise of obesity and T2DM in Indians.

**Glycemic Index of sugars with Reference to Glucose<sup>[18]</sup>**

Glucose 100

Jaggery 87.4

Sucrose 83.9

Honey 78.8

Jaggery contains Cane sugar and fruit sugar in the proportion of 2:1 would be assimilated more rapidly than cane sugar alone taken in same quantity.

**DISCUSSION**

Thus understanding of causative factor (*Roga hetu*) "*Gudavaikrutam*" is having great importance. If cause (*Hetu*) are stronger disease severity increase. Even severity of disease (*Vyadhi Bala*) is also depends on strength of causative factors.<sup>[19]</sup>

Thus causes having importance since before the starting of disease to the end of treatment. Thus to prevent life style disease like *Prameha* one should understand *Hetu* of *Prameha* with each and every aspect.

## CONCLUSION

Knowledge of *Swasthy Hetu* and *Roga Hetu* both are important to remain healthy. *Roga Hetu* which is termed as *Nidana* having great impact on disease manifestation, disease strength and treatment of disease.

*Roga hetu* which is termed as *Nidan* having great impact on disease manifestation, disease strength and treatment of disease. *Nidan (Hetu)* can be understood as *Aharaj hetu Gudavaikrutam*.

The *Hetu Gudavaikrutam* (preparations of sugar and Jaggery) mentioned in classical text. One should have complete knowledge of factor which cause *Prameha*. Because cause of *Prameha* is the part of our daily routine.

Application of understanding of *Hetu* in daily life decrease the chance of occurrence of lifestyle disorders.

## REFERENCES

1. Maharshi Agnivesh Pranit Charak Samhita, Shri Chakrapanidatta Virachit Ayurvedadipika Hindi vyakhya, Ch. Chi. 6/4, Choukhamba Krishnadas Academi, Varanasi, page no. 260.
2. Sushrut Samhita, Dr. Kaviraj Ambikadatta Shastri, Choukhamba Sansthan Varanasi, reprint 2005, Chi. Sthan 11/3.
3. Charak Samhita of Agnivesh, Nidan sthan 4/7, Choukhamba Prakashan Varanasi, reprint, 2016; 212.
4. Charak Samhita Dr. Brahmanand Tripathi, Chi. Sthan 6/4, Choukhamba Subharati Prakashan, Varanasi, reprint, 2014; 279.
5. Sushrut Samhita Dalhan commentary, Acharya Yadavji Trikamji, Nidan Sthan 6/27, Choukhamba krishnadas Academi, Varanasi, reprint, 2004; 294.
6. Charak Samhita of Agnivesh, Sharir Sthan 8/21, Choukhamba Prakashan, reprint, 2016; 420.



7. Acute and chronic complications of Diabetic mellitus.  
[https://en.wikipedia.org/wiki/complications of DM](https://en.wikipedia.org/wiki/complications_of_DM).
8. American Diabetes. Association Diagnosis and classification of diabetes mellitus. Diabetes care, 2010; 33(1): 562-69.
9. Kumar PJ, Clark M. Textbook of clinical medicine, pub:sounders, London, UK., 2002; 1099-1121.
10. *Charak Samhita of Agnivesh, Chi. Sthan 6/4, Choukhamba Prakashan Varanasi*, reprint, 2016; 445.
11. *Charak Samhita of Agnivesh, Sutra Sthan 27/238, Choukhamba krishnadas academi Varanasi*, reprint, 2012; 559.
12. *Ashtang Hriday of Shrimadvagbhat Vidhyotini bhasha tika Su. 5/48, Kaviraj Atridev Gupt, Choukhamba Prakashan Varanasi*, reprint, 2007; 46.
13. *Shrimadvagbhat Virachit Ashtang Sangrah Induvirachit Shashilekha Vyakhya Su. 6/53, Choukhamba Prakashan, Varanasi*, 42.
14. [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)
15. [m.timesofindia.com/lifestyle/health](http://m.timesofindia.com/lifestyle/health).
16. M. B. Schulze, S. Liu, E. B. Rimm, J. E. Manson, Glycemic Index, glycemic load and dietary fiber intake and incidence of type 2 diabetes in younger and middle aged women, Am J Clin Nutr., 2004; 80: 348-356.
17. A. Misra, A. Ramachandran, R. Jayavardena, U. Shrivastava, C. Snehalata, Diabetes in South Asians, Diabet Med., (2014), (in press).
18. Uma P., Hariharan R. S., Department of Diabetology, Madras medical college & govt. General Hospital, Madras.
19. *Charak Samhita of Agnivesh, Vi.Sthan 08/101, Choukhamba Prakashan, Varanasi*, reprint, 2016; 278.