Original Research Article

Elaborative Study of the *Dosha-dushya* in Aetiology of *Prameha* W.S.R. Kriya Sharir

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ABSTRACT

Diabetes mellitus (*Prameha*) is also termed as silent killer and recently evidence of cases of insulin resistance and occurrence of side effects from prolong administration of conservational drugs. It has triggered the research for safe and effective alternatives. Here Ayurveda with special focus on Nidana (aetiology), Ahara and vihar (diet and lifestyle) can seriously contribute into the Diabetes mellitus (*Prameha*) management.

Ayurveda explained widely the concept of *Prameha* and its management. With globalization of Ayurveda, whole world sees towards Ayurveda with ray of hope for successful treatment.

This study elaborates the relation in between Dosha-dushya of Prameha and aetiology of Prameha.

Keywords: Prameha, Dosha, Dushya, Kriya Sharir.

1. INTRODUCTION

The word '*Prameha*' consistitutes of two subwords '*Pra*' and '*Meha*'. The word *meha* is derieved from the root '*mih sehane*' by adding '*Lue*' *pratyaya*. It means to excrete in Sanskrit literature. Rigved mentioned this word first (*Rigveda 10/163*) The commentator of *Rigveda* interpretated the word *mehana* as *medhra*, which denotes to *Shisna* (Penis). In sanskrit literature the '*mih*' is used to denote to make water, to emit semen. Acharya charak has been described the utpatti of *Prameha* in *Nidansthan*. They described that *Prameha* and kushtha are produced by the intake of *Havish* (*Ghrut*).^[1]

Prameha is fast growing health hazard and silent killer. It is a socioeconomic impact on a person and society is immense. India has more diabetes than any other country in the word. Effective, affordable, natural, strategies are

regard to combat the disease. In this regard, ayurveda has much so explain as compare to modern. Prameha (Diabetes) is one of the greatest challenges in the world. Basic principle of Ayurveda is described in bhruhatrayi and laghutrayi. Origin of laghutrayi after development is of Rasashastra, laghutrayi include Madhav Nidan, Sharngadhar Samhita and Bhav Prakash. In Madhav Nidan (7th century), Sharngadhar Samhita (13th century) and Bhav Prakash (16th century) described similar Nidan, Purvarup, Dosh Dushya, Prameha. Samprapti and types of (13th Sharngadhar Samhita century) described only type and treatment of Prameha. As Prameha is a tridoshaj vyadhi with 10 dushyas there is possibility of loss of combination of dosh dushyas. Acharya charak stated that Prameha is Kulaj Vicar (Hereditary) and jataj Prameha (Juvenile diabetes) is incurable.^[2]

Ayurvedic samhitas state that *sahaj Prameha* occurs due to defect in *Beej*, *Beej Bhag* or *Beej Bhag Avayay*. We can correlate *Beej* to ovum and sperm, *Beej Bhag* to compare chromosome and *Beej Bhag Avayav* to compare genetic coding. *Acharya Charak* also mentioned that, in excessive use of *madhur ras* by mother at the time of pregnancy causes to *Prameha*.^[3]

Pratyatma Lakshan of Prameha is : prabhut mutrata that means Prameha patient in which more quantity and frequency of urination probably this is the result of bahudrav shleshma in the pathology of Prameha, in Prameha dushta kapha is called as 'Bahu Drav shleshma' that means there is increase in *drav gun* of kapha. Involved dushvas are- meda, mamsa, ras, rakta, majja, vasa, kled, lasika, shukra and oja. Except rakta dhatu all dushyas are kapha category, meda and mamsa are important *dushyas* and are compulsorily involved in all types of *Prameha*. Peculiarity of meda and mamsa dhatu is both of them are *bahu* (excess in quantity) and *abaddha (aghana* i.e. flabby or loosely bonded). There is *sharir* shaithilya (lassitude) in Prameha.^[4]

Prameha is a life threatenting life style originated disease. Prameha is basically belongs to Medovaha, Mutravaha and Annavaha Srotas. It is santarpana janya vyadhi. And disease related to jala and pruthvi mahabhuta. The mythological origin of Prameha vyadhi is because of excess indulgence of havi i.e. diet prepared from milk, rice and all dry fruits. Prameha is having superlative importance in anushangi vyadhis i.e. long lasting diseases. Prameha is included in *mahagada* group by Acharya charak, Acharya sushruta and Acharya vagbhata because of its bad prognosis. As Prameha is life style originated disease, there is much more importance of hetu sevan i.e. aetiological factors in its origin. It have mainly three types viz. kaphaja, pittaja and *vataja*. The actors which play main role in movie called prameha are samprapti ghatak of prameha. Doshadushya sangraha of *prameha* is as-^[5]

Dosha- kapha, pitta, vata

Dushya- Rasa, rakta, mansa, meda, majja, shukra, oja, Ambu, vasa and lasika^[6] Prameha have asyaasukha (tendency of sitting always), swapnasukh (tendency of sleeping), dadhivarga (all derivatives prepared from curd), gramya, audaka and anoopa mansa sevana (meat of that varieties which increase shelshma), navaanna (crops which are used within one year of cultivation) and navapana and all other causes which mainly act positively on kapha dosha i.e. jala and pruthivi mahabhuta.^[7] According to Chikitsa point of view,

nidanaparivarjana is the ultimate remedy for all diseases.

If someone stops indulgence of *shleshma vardhak hetu*, that is the prime treatment for *prameha*. Without proper knowledge of *hetusevan and dosha-dushya sangraha* one cannot suggest *nidan parivarjan* to any patient. So keeping that basic principle of *chikitsa* in mind we are going to conduct an elaborative study of *dosha-dushya* in aetiology of *Prameha vyadhi*.

2. Aim and Objectives:

Aim:

To elaborate the relation in between *Dosha-dushya* and aetiology of *Prameha* W.S.R. Kriya sharir.

Objectives:

- 1. To explore aetiology of *Prameha* in classical texts.
- 2. To explore *Dosha-Dushya* in *Prameha samprapti* in detail.
- 3. To elaborate relation *Dosha-Doshya* in aetiology of *Prameha*.

3. MATERIAL AND METHODS MATERIALS:

It is an observational Retrospective type of study.

Subject recruitment and screening –

1) Patients were selected irrespective of sex, caste, religion, social status etc.

2) **Sample size**- Total no. of 60 patients aged above 35 years and below 65 years had *Prameha* diagnosed by BSL fasting and PP,

HbA1C and typical classical Lakshanas were selected.

3) Written consent was taken from each patient prior to case taking.

4) **Study tool**- Detail case of the patients was taken with the help of specially designed case paper to find the Hetus (etiological factors) and Lakshanas (symptoms) in the patients of the *Prameha*. To fulfill aims and objectives, a lifestyle questionnaire was used for survey which was based on the etiological factors mentioned in the Ayurvedic classics for the *Prameha* that comprised:

- Aharatmak Nidan
- Viharatmak and
- Manasik Nidan

METHODS:

- *Prameha* patients diagnosed visited to OPD of our institute were selected for the survey.
- Each lifestyle related questions were explained properly to the patient and the response was noted in the Survey Questionnaire.

SELECTION OF PATIENT:

Inclusion Criteria

- 1. Age- Patients between 35- 65 age.
- 2. Gender- both male and female patients will be selected.
- 3. Patients given clinical history of *Prameha* (D.M).
- 4. Patient having hyperglycaemia confirmed by laboratory investigation.
- 5. Presence of Cardinal symptoms of *Prameha* as described in *Ayurvedic* texts
- 6. All patients of Type 2 DM (Non insulin dependent)

Exclusion Criteria

- 1. Patient having Type 1 DM.
- 2. Age below 35 and above 65 years.
- 3. Patient of Type II DM who were on insulin therapy. Complications with DM.
- 4. Patient having any serious illness.
- 5. Patient having a FBS >250 AND PPBS >350.

Number of patients -

The total number of patients i.e. 60 was in single group based upon random selection.

Each patient of *Prameha* was selected by examining fasting and post prandial blood sugar and HbA1C.

- 1. Each patient was examined in details physical, general and system wise.
- 2. Each Patient of was asked a questioner for the detailed information about Hetus and Lakshanas of *Prameha*.

Diagnostic Criteria:-

1. Subjective criterion

All the patients were diagnosed on the basis of following criteria:-

Clinical Signs and Symptoms of *Prameha* which are mentioned in classical texts.

- a. Pipasadhikya
- b. Kara-Pada-Suptanga
- c. Swedaadhikya
- d. Alasya
- e. Jatilibhavamkesheshu
- f. Asyamadhurya
- g. Karapadayodaha
- h. Mukh- talu- kanthashosha
- i. Aavilamutrata
- 2. Objective Criteria:
- a. Various Investigations
- 1. Blood Examinations.
 - i. F.B.S. (Fasting Blood Sugar)
 - ii. PPBS (Post Prandial Blood Sugar)
- iii. HbA1C
- 2. Urine Examination
 - i. Routine Examination
 - ii. Microscopic examination.

OBSERVATIONS AND RESULT

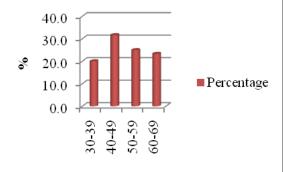
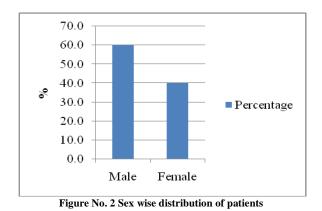


Figure No. 1 Age wise distribution of patients

Out of 60 individuals majority of the patients i.e. 19 (31.7%) were reported in age group 40-49 years, followed by 15 (25%)

patients observed in the age group 50-59 years, 14 (23.3%) patients observed in the age group 60-69 years, 12 (20%) patients observed in the age group 30-39 years



In the present study the higher number of Male indicate demography of sex with 36 [60%] and Female 24 [40.0%] out of 60 individuals.

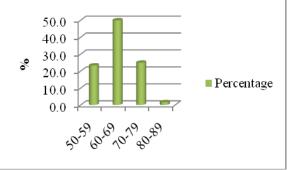


Figure No. 3 Weight wise distribution of patients.

In present study out of 60 individuals no. of pt between weight 50-59 were 14 [23.3%], 60-69 were 30 [50%], 70-79 were 15 [25%], and 80-89 was 01 [1.7%].

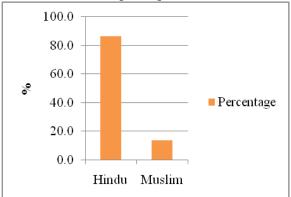
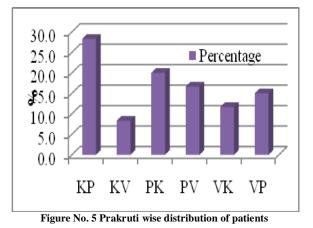


Figure No. 4 Religion wise distribution of patients Out of 60 individuals maximum individuals were found Hindu religion i.e. 52 [86.7%] and Muslim religion were 08 [13.3%].



In present study out of 60 individuals pt of KP prakruti were 17 [28.3%], KV were 05 [8.3%], PK were 12 [20%], PV were 10 [16.7%], VK were 07 [11.7%], VP were 09 [15.0%]

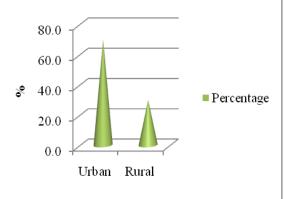
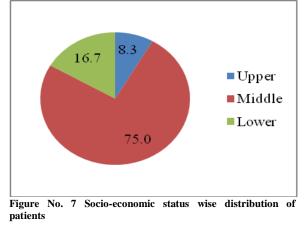


Figure No. 6 Habitat wise distribution of patients

In present study out of 60 individuals pt found in URBAN were 42 [70%] and in RURAL were 18 [30%].



In present study out of 60 individuals total no. of pt found in UPPER CLASS were 05

[8.3%], MIDDLE CLASS were 45 [75%] and LOWER CLASS were 10 [16.7%]

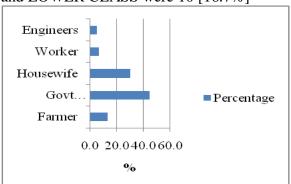


Figure No. 8 Occupation wise distribution of patients

In present study out of 60 individuals maximum 27 patients were Govt. servant, followed by 18 patients were House wives, 08 patients were Farmer, 04 patients were Worker, 03 patients were Engineers.

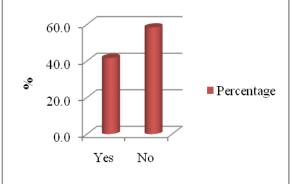
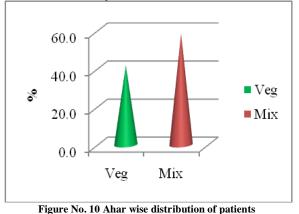
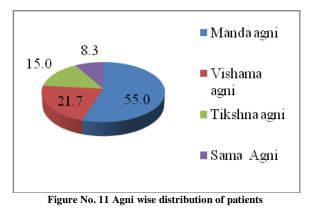


Figure No. 9 Family history wise distribution of patients

In present study out of 60 individuals total no of pt having diabetic history were 25 [41.7%] and the pt does not have DM history were 35 [58.3%].



In present study out of 60 individuals total no. pt found which was having mix ahar were 35 [58.3%] and vegetarian were 25 [41.7%]



In present study out of 60 individuals no. of pt of Mandaagni were 33 (55%), Vishamaagni were 13 (21.7%), Tikshanagni were 09 (15%) and that of Samaagni were 05 (8.3%)

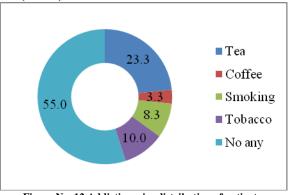
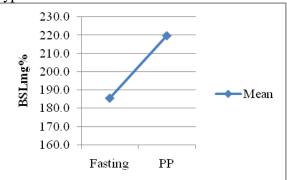
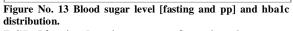


Figure No. 12 Addiction wise distribution of patients

In present study out of 60 individuals total no. of pt, 14 [23.3%] no. of pt have addiction of tea, 02 [3.3%] no. of pt having addiction of coffee, 05 [8.3%] no.of pt having addiction of smoking, 06 [10%] no.of pt having addiction of tobacco and remaining 33 [55%] pt does not having any type of addiction.





BSL [fasting] values were found to be mean 185.7 and S.D is 10.8 and B.S.L. [P.P.] values are found to be mean 219.7 and S.D

13.2. HbA1C values are found to be mean 7.1 and S.D. is 0.9.

DISCUSSION

Diabetes mellitus (*Prameha*) is also termed as silent killer and recently evidence of cases of insulin resistance and occurrence of side effects from prolong administration of conservational drugs. It has triggered the research for safe and effective alternatives. Here Ayurveda with special focus on Nidana(aetiology), Ahara and vihar (diet and lifestyle) can seriously contribute into the Diabetes mellitus (*Prameha*) management.

Ayurveda explained widely the concept of *Prameha* and its management. With globalization of Ayurveda, whole world sees towards Ayurveda with ray of hope for successful treatment. Keeping the limitations and adverse effect of modern treatment in mind, it was decided to work on *Prameha*.

Discussion on observations:

Age: As we get older the risk of DM goes up.^[8] In present study it was found that majority of the patients 19 (31.7%) were in age group of 40-49 years. followed by 15 (25%) patients observed in the age group 50-59 years, 14 (23.3%) patients observed in the age group 60-69 years, 12 (20%) patients observed in the age group 30-39 years. The prevalence of Type 2 Diabetes increases markedly with age and unfortunately the age of onset has moved down into younger adults and even adolescents in recent decades, especially in the countries where a major imbalance between energy intake and expenditure has emerged ^[9] and India is one such country.

Sex –60% patients of this study were Male and 40% patients were Females. (Figure 2) It shows that *Prameha* can occur in either sex but highlighting its prevalence in Males because they have a tendency to develop it because of sedentary life style and stressfull life style. Moreover, some feminine factors like pregnancy, use of oral contraceptives, menopause etc. was predominant factors, which makes Female an Obese and finally *Prameha* condition occurs. Females are more conscious about their look or appearance; hence they may report more for Obesity to the clinician and try to control weight gain.

Weight - Patients between weight 50-59 is 14 [23.3%], 60-69 is 30 [50%], 70-79 is 15 [25%], and 80-89 is 01 [1.7%] shows more prevalence. According to Acharya Charaka all Poorwarupas of *Prameha* are included in Medovaha Srotas Lakshanani and Stholya is Medovaha Srotas Vyadhi.

Religion – 52 Patients (86.7%) were from Hindu religion, however 08 patients (13.3%) were Muslim (Figure 4). But interpretation of such relationship between the religion and Prediabetes cannot be drawn. This predominance might be occurred due to location of study centre.

Doshaj Prakruti– Out of 60 patients of 17 [28.3%] patients Kapha-Pitta prakruti, 05 [8.3%] patients is Kapha Vat prakruti, 12 [20%] patients is Pitta-Kapha prakruti, 10 [16.7%] patients is Pitta Vata, VK is 07 [11.7%] patients is Vata Kapha prakruti, 09 [15.0%] patients is Vata- Pitta prakruti. It can be suggested that Kapha Pradhan Prakruti is more prone for *Prameha*. (Figure 5) Kapha is seated in MedaDhatu with Guru, Snigdha, Sthira, Manda, Pichhilaguna so Kapha Dosha is main cause for *Prameha*. Drava Guna is also causative factor for development of *Prameha*.

Habitat- Out of 60 patients included in the trial 42 [70%] patient from Urban area and 18 [30%] from rural area. More no. of pt in urban area due to its life style and consumption of junk food and type of work.

Economic status– Out of 60 patients included in the trial 45 [75%] patients were from Middle group, 10 [16.7%] patients were from Lower group, 05 [8.3%] patients were from Upper group (Figure 7). No conclusion drawn from this finding because the study site was government hospital, draining patients mostly from middle and lower economical class.

Occupation: Types of Occupations have significant association with *Prameha*. In this study it was found that 45% patients were

Government Servant, 30% were Housewife, 13.3% were farmer, 6.7% were Worker and 5% were engineers. Decreased physical activities and sedentary life due to the occupation is one of the important causes of *Madhumeha*. Occupations have direct role in level of physical activities involvement.

Family History- Ayurveda also has stressed upon familial history. Charak has described that it is one of the Kulaj Vihar while, Sushruta and Vaghbhat has also opined same view. Out of 60 patients included in the trial no. of patient having family history of DM is 25 [41.7%] and no. of pt does not have history is 35 [58.3%]. Generally it is considered those patients who have history of DM are more prone to develop DM. But for this sample size we could not draw the conclusion of family history in this trial. As for this study the sample size is limited so we got pt having no family history of DM.

Ahar- According to Ayurvedic text patient indulged in particular diet has important relation in the etiological factor of *Prameha*. Sushrut enlighten Apathyanimitaj *Prameha*. Out of 60 patients included in the trial no. of patient having Mix Ahar is 35 [58.3%] and vegetarian is 25 [41.7%]. in mix type of Ahar, The patient taking more non veg food stuff like chicken, mutton, fish and egg are more possibility to gain weight and body get tendency towards obesity that's why this result are observed.

Agni- Out of 60 patients of Prameha, 09 (15%) Patients were found with Tikshnagni, 05 (8.3%) patient of Samagni, Vishamagni was found in 13 (21.7%) patients and there were 33 (55%) of Mandagni (Table3). Mandanagni is the major effect of Prameha, which is due to formation of Aama. Before description of Prameha. Vagbhata has described Grahani Adhyay which deals with digestion and metabolism. This is a clear indication that proper understanding of digestion (metabolism) is very necessary for the treatment and prevention of Prameha. As long as the Jatharagni is normal or within physiological limits, digestion and metabolism are also maintained within the physiological range and are likely to be deranged with the disorders of Jatharagni. The control of Jatharagni over the Dhatwagni has been already referred to. The disorders of Jatharagni are caused by disturbances of the Dosha and on the other hand, once Jatharagni is disturbed it vitiates all the dosha. Thus a type of vicious cycle is formed.

Addiction- Vyasan is the bad habit, which patient indulges in, accordance with Ayurvedic concept it is Asatmya. Out of 60 patients included in the trial no. of patient having Tea addiction is 14 [23.3%], having Smoke addiction is 05 [8.3%], having Tobacco addiction 06 [10%], having Coffee addiction is 02 [3.3%] and remaining 33 [55%] pt does not having any type of addiction. Effect of addiction may be due to the person having addiction have some type of stress.

CONCLUSION

The study entitled "Elaborative study of Dosha-Dushya in Aetiology of Sharir" Prameha w.s.r. Kriva was undertaken for the study. Today some diseases have turn out to be burning problem of society. Diabetes Mellitus is one of them. Prameha (Diabetes Mellitus) is the world leading disorder now-a-days. Prameha is recently evidence of cases of insulin resistance and occurrence of side effects from prolonged administrations of conservational drugs. It has triggered the research for safe and effective alternatives. So there is intense need to know the graveness of the disease and to understand the proper relation of Dosha-Dushya in aetiology of Prameha to treat this burning issue of present era in society based upon the clinical study observations and results in the form of tables and graphs, precise and detailed discussion, following conclusion are drawn:

In present study it was found that majority of the patients (31.7%) were in age group of 40-49 years and 25% patients were in age group of 50-59 years. It is well known fact that incidence of *Prameha* goes up as we get older but unfortunately the age of onset has move down in to younger generation.

Maximum patients (75%) were belonging to middle socio-economic status and were having sedentary type of occupation.

Maximum patients (58.3%) were having negative family history. This finding strongly suggests that more than genetic it is lifestyle related factors which contribute as the etiological factors of *Prameha* (type-2 DM).

Maximum patients reported that they feel good hunger and take food roughly at same time each day but they consume more quantity of food and rarely pay attention to their hunger level.

Most of the patients take food containing more oil/ghee/butter in all the three times and even they take heavy breakfast with oily/deep fried food items.

Weekly frequency of intake of milk and milk products, ghee, ghee based sweets; sugarcane preparation and fatty food were found as strong etiological factors associated with *Prameha*.

Intake of bakery products, restaurant food, preserved and refrigerated food were found in very less percentage of patients, so for present survey study these factors cannot be considered as main etiological factors for *Prameha*.

In present cross-sectional survey study lack of involvement in physical activities was found as the important etiological factor contributing to *Prameha*. Most of the patients were having sedentary lifestyle pattern and maximum patients were not involved in morning/evening walk or Yoga or any sportive physical activities. Both longitudinal and cross sectional survey studies have also proved that physical inactivity is an independent predictor of Type-2 DM.

Maximum patients were having habit of sleeping in day time for more than one hour almost every day in week. They used to sleep immediately after having food and in comfortable cushioned bed and they were having habit of getting up late in the morning. Such unhealthy sleep pattern is definitely a strong cause of *Prameha* and both classics and present survey study supports that.

In *Manasika Nidana* it was found that most of the patients are not happy considering all the things in life. Very less percentage of patients reported that they are not at all under strain and not at all feeling anxious in life since long time. It was also reported that most of the patients feels lazy in doing any work.

Finally it can be concluded that intake of heavy. Fatty food, physical inactivity, day sleep and psychological distress are the main etiological factors *(Nidan or Hetus)* contributing to manifestation of *Prameha*.

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