



“ ROLE OF DIET AND EXERCISE IN THE MANAGEMENT OF PRAMEHA ”

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ABSTRACT:

The number is projected to grow by 2045 to become 134 million per the International Diabetes Federation. Yet prameha is multifactorial but diet and physical activity play important role in the management of prediabetic and diabetic conditions, that is the reason behind the detailed description of dietic and physical activity in the prevention and management of prameha. Majority of many chronic diseases relevant today are now being claimed as lifestyle disorders. Ayurveda has potential to preventing lifestyle disorders: prameha is major health problem for the world in the 21st century. The prevalence of prameha is increasing around the world. India has acquired the second position in the list of countries with higher diabetic patients. Lifestyle and eating disorders are becoming the main reason behind the various diseases and diabetes is a lifestyle disorder whose number is increasing at higher space. In Ayurvedic system of medicine for any disease the first line of management is Nidana parivarjana (avoiding the cause) which is the primary step. Internal and external medication is of secondary importance. Prameha (diabetes mellitus) is caused by mithya ahara vihara such as sedentary lifestyle, excessive sleep, excessive intake of curd, meat soups of domestic, aquatic, and marshy land animals, milk products, freshly harvested food articles, fresh wine, jaggery preparations and all other kapha promoting substances, laziness, intake of food substances which are cold, unctuous, sweet, fatty and liquid. Mostly sedentary mode of life, viruddha and Aahita Aahara (incompatible diets) Ati matra sevana (excessive intake) leads to the dreadful disease called Prameha (diabetes mellitus). prameha is a Tridoshja Vyadhi in which kapha is a pradhana dosha. Bahu and abaddha meda is Pradhan dushya. Prabhut and avil

mutrata are main symptoms. Prameha patient advised what they should not have in their diet, but it is very uncommon that they are advised what they should have particular in their diet. Disease specific dietary measures are unique concept of Ayurveda. A properly selected diet plan and lifestyle modification is important in disease management. Pathya for Prameha explained throughout Samhita. This article establishes the truthfulness of the Ayurvedic concept and the role of Ahar dravyas (dietics) and exercise in reference to Prameha (Diabetes mellitus).

Keywords: *Prameha, Lifestyle Effect, Pathya, Apathya, Diabetes Mellitus, Exercise*

INTRODUCTION:

India has an estimated 77 million people (1 in 11 Indians) formally diagnosed with diabetes, which makes it the second most affected in the world, after China. [1] Furthermore, 700,000 Indians died of diabetes, hyperglycaemia, kidney disease, or other complications of diabetes in 2020. One in six people (17%) in the world with diabetes is from India. [2] (India's population as calculated in October 2018 was about 17.5% of the global total. [3]) Ahar dravyas having excess Madhur, amla, lavana rasa, and snigdha and guru properties tend to incline the person towards prameha. Therefore, a diet having opposite properties of these attributes like yava, honey, old cereals, etc play a key role in the prevention and management of prameha.

Prameha is a lifestyle disorder which is emerging as a leading cause of for various disabilities and death around the world. As per Charak Samhita, prameha is a tridoshaja vyadhi. The word Prameha means "To flow" which is derived from the Sanskrit root "Mih Sechane". Prameha is of 20 types based on dosha predominance, categorised namely as Kaphaja, Pittaja, Vataja Prameha on the basis of etiology, Sushruta has mentioned clearly two types of Prameha⁽⁴⁾ Sahaj Prameha (hereditary) and Apathyanimittaja Prameha (Acquired). Kapha prakopaka Aahara and Vihara are main causative factors of Prameha^(4,5) Prameha is a condition which occurs due to the vitiation of all three doshas and Jala Mahabhoota. Deranged Jala Mahabhoota affect the tissue of the body mainly Muscular and Fatty tissues. This results in hypotonicity and loose consistency of the tissues. Due to aggravation of Kapha dosha and Kleda formation occurs in body resulting into the impaired fat and lipid metabolism. When the excess production of Kleda occurs inside the body, it causes production of cloudy urine in high amount. Excessive formation of Kleda affect the tissues such as of the muscles, fat, lymph etc. and causes Shaithilya.⁽⁶⁾ The chikitsa of prameha explained by Acharya Charak, Sushruta and Vagbhata. Pathya Apathya is the main part of the treatment along with the medicines. Cost effective Ayurveda lifestyle modification can contribute towards preventing and managing the burden of prameha. The study of Aahara and Vihara reveals the rich knowledge of the Ayurveda in the prevention of Prameha by following lifestyle modification. Therefore, it is essential to recognize the potential of the Ayurveda and lifestyle modification and diet plays a first step in the fight against Prameha.

Aims and Objectives:

To study the Role of diet and exercise lifestyle Modification in prameha in detail.

Materials and Methods:

1. All the references regarding prameha ahar dravya and lifestyle modification are collected from various Samhitas.
2. Concept of diet and exercise along with lifestyle modification is studied in detail.

The Trayopstambha mentioned in Ayurveda classics are Aahar , Nidra, Brahmacharya . All these plays very important role in supporting the Trayopstambhas. Aahar is one such supporting pillar whose quality, quantity, compatibility, processing and consumption criteria are considered as an important factor in Ayurveda. ⁽⁷⁾ Aahara and Vihara which are suitable for Pramehi are called pathya and those induce Prameha are called Apathya. Ayurveda recognized the importance of food and daily activities in Prameha.

The history of dietetic is very old, which is an essential factor for the maintenance of life as mentioned by *Acharya Sushruta* that diet is the basis of life together with strength, complexion, and *ojas* of all living being . According to *Rigveda's* description, *Purusha* is all that contains the events of the past, present, and future. He is also the governor of *Amruta* (nectar or immortality) and that which is manifested by *Anna*(diet) ⁽⁸⁾. In *Atharvaveda*, the rice cooked with water, ghee, and mixed with the juice of *soma* is the diet of *Brahmana* (which is called the *Brahmodana*) ⁽⁹⁾. In *Taiteriyopnishad*, *Anna* has been recognised as a great entity for life. *Chhandogya upanisad* lays more emphasis on the purity of food and its effect on the body and mind. *Manusmriti* also lays more importance on food and mentions certain psychic disorders due to the intake of erroneous diet ⁽¹⁰⁾. It is described in *shastras* that “*Arogya Bhojanadhinam*” i.e., the intake of pure *Ahar*(diet) or *hitahar* gives *Arogya*. By taking *hita*, *ahita ahar* the *Shubha ashubha* (harmful) effects on the body and manas can be seen necessarily. That means *hita ahar* creates a *subha* (advantageous) effect and *ahit ahar* creates an *asubha* (harmful) effect ⁽¹¹⁾. While describing the aetiology of *Prameha Acharya Charak* has mentioned that idle sitting, oversleeping, excessive use of curd, meat, soup of domestic, aquatic, and marshy animals and milk, new cereals and drinks, nutritive regimens lead to the development of *Prameha* ⁽¹²⁾. *Acharya Sushruta* has described it as an anomaly of urinary secretion.

Aushadha- When the disease is not controlled by diet and exercise then drugs are indicated. In general, drugs having *katu*(pungent), *tikta*(bitter), and *Kashaya*(astringent) *rasa* are indicated in all types of *prameha*¹³.

PATHYA AHAR DRAVYA ADVOCATED IN PRAMEHA MENTIONED IN SAMHITA ¹⁴⁻¹⁶.

Sr.No.	Ahar Dravya	Charak Samhita (14)	Sushruta Samhita ⁽¹⁵⁾	Vagbhatta Samhita (16)
	Shuka Dhanya varga			
1.	Purana shali	+	+	+
2.	Sasthika	+	+	+
3.	Godhuma	+	+	+
4.	Yava	+	+	+
5.	Venuyava	+	+	+
	Shami Dhanya varga			
6.	Mudga	+	+	+
7.	Masura	-	+	+
8.	Chana	-	+	-
9.	Adhaki	-	+	-
10.	Kulatha	-	+	-
	Kshudra Dhanya varga			
11.	Kodrava	+	+	+
12.	Jangai kodrava	+	+	-
13.	Shyamaka	+	+	+
14.	Hasti shyamaka	+	-	-
	Mansa varga			
15.	Pratuda mansa	+	-	-
16.	Viskira mansa	+	-	-
17.	Jangala mansa	+	+	+
18.	Shulya mansa	+	-	+
19.	Meda shulya mansa	-	+	-
	Shaka varga			
20.	Katutikta shaka	+	+	+
21.	Patola	-	-	-
	Ahar yogi varga			
22.	Haridra	+	+	+
23.	Maricha	-	+	-
24.	Hingu	-	+	-
25.	Saindhava	-	+	-
	Sneha varga			
26.	Ausadha siddha ghrita	+	+	+

27.	<i>Danti taila</i>	+	+	+
28.	<i>Engudi taila</i>	+	+	+
29.	<i>Atashi taila</i>	+	+	+
30.	<i>Sarshapa taila</i>	+	+	+
	<i>Phala varga</i>			
31.	<i>Kapitha</i>	-	+	+
32.	<i>Tinduka</i>	-	-	+
33.	<i>Jambu</i>	-	-	+
34.	<i>Amla</i>	+	+	+
35.	<i>Kharjura</i>	-	-	-
	<i>Paniya varga</i>			
36.	<i>Ksarodaka</i>	+	-	-
37.	<i>Kushodaka</i>	+	-	-
38.	<i>Triphala rasa</i>	+	-	-
39.	<i>Madhudoka</i>	+	+	-
	<i>Mutra varga</i>			
40.	<i>Gomutra along with other mutras of mutra varga</i>	-	+	-
	<i>Madya varga</i>			
41.	<i>Sidhu</i>	+	-	+
42.	<i>Arista</i>	-	-	+
43.	<i>Purana madya</i>	+	-	+
44.	<i>Asava</i>	-	-	+
	<i>Visistha yoga & anupana</i>			
45.	<i>Triphala yoga</i>	+	-	-
	<i>Anupana</i>			
46.	<i>Takra</i>	-	-	-
47.	<i>Madhu</i>	+	+	+
	<i>Ahar Kalpana</i>			
48.	<i>Yava sattva</i>	+	-	+
49.	<i>Yava apupa</i>	+	-	+
50.	<i>Yava vatya</i>	+	-	+
51.	<i>Yava odana</i>	+	-	-
52.	<i>Yava dhana</i>	+	-	+
53.	<i>Yava mantha</i>	-	-	+

54.	<i>Yava laja</i>	-	-	+
55.	<i>Godhuma sattu</i>	+	-	+
56.	<i>Godhuma apupa</i>	-	-	+
57.	<i>Godhuma vatya</i>	-	-	+
58.	<i>Godhuma dhana</i>	-	-	+
59.	<i>Mudga yusha</i>	+	+	+
60.	<i>Puranashali odana</i>	+	-	+
61.	<i>Chanakopadansa laja</i>	-	-	+
62.	<i>Trikukkuta khanda khand</i>	-	-	+
63.	<i>Shilauncchanna sattu</i>	-	+	-
64.	<i>Shilauncchanna apupa</i>	-	+	-
65.	<i>Shilauncchanna vatya</i>	-	+	-
67.	<i>Shilauncchanna dhana</i>	-	+	-
68.	<i>Shilauncchanna mantha</i>	-	+	-
69.	<i>Shilauncchanna yusha</i>	-	+	-
70.	<i>Shilauncchanna odana</i>	-	+	-

Dietary modification in Prameha:

Food Type	Pathya	Apathya
Cereals	Adequate Barley, Millet, Wild Millet Less Quantity: Wheat	Rice, processed wheat flour, newly harvested Cereals
Pulses	Adequate Quantity: Bengal gram, Green gram Less Quantity: horse gram, pigeon pea	Black gram, Kidney beans
Vegetables	Adequate Quantity: Patola, Drumstick, leafy vegetables like fenugreek leaves, vegetables with bitter taste predominance like bitter guard Less Quantity: Bottle guard Cauliflower, cabbage	Starchy vegetables. Potato, Yam.
Fats	Less Quantity: mustard oil, flex seed oil, meat of goat and rabbit	Ghee, animal fat, Hydrogenated Ghee, Soyabean oil, Groundnut oil
Kitchen spices	Turmeric, Pippa, Zinger, Garlic, Fenugreek seeds Rock salt	Excessive Mixed spices Coconut paste

Fruits	Adequate Quantity: Indian gooseberry, black berry Moderate quantity: Indian bael, elephants nuts, Guava Less quantity: sweet lemon, unripe papaya and Apple	Ripen Sweet fruits like Mango, Orange, Chiku, Grapes, Banana, Litchi, Ripe Papaya, Pear, Pineapple, Jack fruit,
Drinks	Moderate quantity: Takra, Madhudaka Less Quantity: Skimmed Milk, Tea without Sugar, Black Tea without sugar, black Tea without sugar, Green Tea	Sugarcane Juice, Whole Milk, sweet buttermilk, Curd, Excessive Water, Cold and Freeze Water, Soft cold Drinks, Alcohol
General Guidelines	Increase Low Glycemic Index food in diet, maintain portion control, reduce the quantity of food intake	High Glycerin Index diet, mutton, Eggs, Poultry, butter and Milk products, Desserts like different sweets, Ice-cream

Role of exercise-

Vihar (Exercise)- As mentioned earlier lack of exercise and excessive sleep during the day and nighttime play important roles in the etiology of *Prameha*. Emphasis on this point has also been given by ancient Ayurvedic physicians. *Acharya Sushruta* has described in detail the management of *Prameha* in poor and rich patients with exercise and diet⁽¹⁷⁾. For those patients, it has been said that they should move from one to another village and earn his living by begging. By this verse, Sushruta wants to convey the role of exercise and less intake of food in the management of *Prameha*. In *Chakradutta Prameha chikitsa adbhikara* it is described, in order to overcome *Prameha* one should live as a mendicant, roam about continuously for up to a hundred *yojana* (*yojana*=8 miles) or more without shoes and umbrella and keep on alms or should move about in a forest keeping on the diet of wild rice and *amalaka*⁽¹⁸⁾. So, ancient scholars have given more importance to walking exercise as it is given by modern medical science.

Lifestyle modification in Prameha:

Activities	Do's	Dont's
Sitting	On Stool or Chair without support, on a hard surface, chair, on mat or hard cushion	On a comfortable Sofa, chair with back support, Movable chair, on a soft cushion, watching TV , movies for long hours
Sleeping	On hard bed, Only at Night for 6-8 Hours	On Soft Mattress, Dunlop, Day sleeping, Night sleep for long hours,
Studying	Sitting on Mat and loudly reading	Lying on soft bed or sitting on soft comfortable chair and studying
Physical activity	Increase activity, social activities, Sports, Farming, Gardening, Brisk walking	Sedentary Life Physical activity-sitting or lying for longer duration
Miscellaneous	Walk to work, travel by public vehicle and walk the rest to your work , climb up the stairs	Travel by comfortable luxurious vehicle, use of elevator
Exercise	Brisk walking, jogging, cycling , skipping, Dancing, Swimming	-
Yoga	Aasana like Matsyendraasana, Vajraasana, Pacchimotasana, Pranayama like: Bhramari and Bhastrika, Kapalbhathi	-

Discussion:

Ayurveda is a science that has given importance to diet and regimen as a part of Chikitsa. Pathya Apathya plays supportive role in the management of Yapa Vyadhi especially like that of Prameha .Prameha occurs due to Tridosha Dushti but Kaphakrut hetu and Kaphadushti are mainly responsible for Dosha Dushti Samurचना.i.e Samprapti. Acharyas indicated the importance of Pathya Ahara by stating that if a patient takes wholesome food, then there is no need of medicine and if a patient continuously consumes unwholesome food then also there is no need of medicine. Hence Pathya is key factor in maintaining health. Concept of

Pathya changes at every moment and with every individual. What is Pathya to one person may not be Pathya to another person. Even it changes in the same individual depending upon various components like - Age, psychological parameters, Dosha Avastha, Desha, Satmya etc. So, considering and elaborating the diet plan need a lot of attention from the physician. As all the Dosha and Dhatu except Asthi along with Oja are involved in the pathogenesis of Prameha regular pathya sevan is very important. Modification of diet consists of maintenance of proper nutrition and monitoring of calories ingested, individual food sources that make up these calories and the distribution of the calories throughout the day. Attainment of optimum body weight results in marked reduction in hyperglycemia and increase in target cell response to insulin. For a healthy body we need to discourage the harmful lifestyle and find out the high-risk population and make them adopt the real principle of life style through Sadvrittapalana.

Dhatus without increasing *Kapha Dosha*. *Chanaka* (Bengal gram) is *Ruksha*, *Kashaya Rasa* helps to reduce *Kledata* and does not increase *Kapha Dosha*, can use *Chanaka Yusha*, *Chanaka Rotika*, etc. *Kulatta* (Horse gram) is having *Kashaya Rasa*, *Teekshna*, and *Ushna* property ceases *Kaphaja Vikaras* when used as *Kulatta Yusha* preparation. *Tikta Shakas* (bitter taste vegetables) like *Karavellaka* (bitter gourd) is bitter in taste controls *Prameha*. *Shobhanjana phala* (drumstick fruits) by its *kashaya rasa*, *kaphahara* property controls *Prameha*. *Yava* (barley) is having *Kashaya Rasa*, *Lekhana*, *Ruksha*, and *Anabhishandi* action results in maintaining the normal level of *Kledata*, and *Kapha Dosha* can be brought under control. It gives strength to the body when taken has *Yava Mantha*, *Vaatya Manda*, etc. *Acharya Charaka* has advised some of the foods like *Mantha*, *Kashaya*, *Yava Churna*, *Lehya* prepared of barley and other eatables, *Yavaudana*, *Vatya*, *Saktu*, and *Yava* along with honey to control *Prameha*.

Conclusion:

Ayurveda has explained *Nidanpamchak* of *Prameha* in detail. If one can understand the *samprapti* of *Prameha* the he can treat the patient in proper way. *Prameha* is a silent killer having various etiological factors such as *Apathya Aahar*, *Apathya Vihara*, *Sedentary lifestyle*, etc. Treating the disease through medicines is not only cost ineffective but sometimes it has various side effects also. The study of historical concepts reveals that the description of *Ahar* (diet) existed since time immemorial. A wholesome diet keeps health diseases free, and the reverse is the cause of all diseases. *Ahar* comprises one-third of the total *chikitsa*. Almost all the *shastras* have given more emphasis on *Ahar* to get rid of the disease. I have given the list of various cereals and other dietic components which are described in the *Samhitas* of ayurveda. It is the responsibility of the ayurvedic physician to sort out the best among them and prescribe them accordingly to the diabetic person. Ayurveda an ancient medical science gives importance to *Ahara* as it considers it as three *Upastamba* (sub-pillars) of life. Diet and Lifestyle modification is the best way to prevent the occurrence of the disease and if it has occurred its spread and complications can also be prevented.

REFERENCES:

- (1) Tandon, Nikhil; Anjana, Ranjit M.; Mohan, Viswanathan; Kaur, Tanvir; Afshin, Ashkan; Ong, Kanyin; Mukhopadhyay, Satinath; Thomas, Nihal; Bhatia, Eesh; Krishnan, Anand; Mathur, Prashant (2018-12-01). "The increasing burden of diabetes and variations among the states of India: The Global Burden of Disease Study 1990–2016". *The Lancet Global Health*. 6 (12): e1352–e1362. doi:10.1016/S2214-109X(18)30387-5. ISSN 2214-109X. PMC 6227383. PMID 30219315.
- (2) Kannan, Ramya (2019-11-14). "India is home to 77 million diabetics, second highest in the world". *The Hindu*. ISSN 0971-751X. Retrieved 2020-04-29.
- (3) Geoffrey Migiro (October 25, 2018). "Countries By Percentage Of World Population". *World Atlas*. Retrieved May 19, 2020.
- (4) Vaidya Yadavaji Trikamaji Acharya, *Charak Samhita, Chakrapani tika*, Chaukhamba prakashan, Reprint 2013, page no 445..
- (5) Amarkosha, ksheerswami commentary, edited by sharma and sardesi. Poona oriental book a gency, poona 1941.
- (6) Agnivesha, *Charak Samhita with Ayurved Dippika Commentary*, Chaukhamba Subharati Prakashan, Varanasi, 2017, Nidan sthana 4/3, p 211.
- (7) Sushruta, *Sushruta Sanhita with Nibandha Sangraha and Nyayachandrika commentaries*. Chaukhamba Sanskrit sansthan, Varanasi, Chikitsa sthana 11/13.
- (8) Vaidya Yadavaji Trikamaji Acharya, *Sushruta Samhita*, Dalhan Tika, Chaukhamba Subharti Prakashan, 2012, page no 597.
- (9) Agnivesha ad Dridhbala, *Charak Samhita*, Nidan sthana, prameha nidana, edited by Vaidya Yadavji Trikamaji Acharya, Chaukhamba Subharti Prakashana, Varansi, Reprint 2005.
- (10) Srikanth N, Haripriya N, Tewari D, *Nutritional decipline in Ayurveda: prospective for translational Research*. world J pharm pharmaceutical sci 2015.
- (11) Shastri R, Bhaisaj yaratnavali of ShriGovinda Das, (*Pramchachikitsaparakaran Verse no44-253*), Reprint, Varanasi, Chaukhamba Prakashan, 2015.
- (12) Vaidya Yadavji Trikamaji Acharya, *Charak Samhita with Ayurveda -Dipika commentary*, Edition 2021, Chaukhambha Orientalia, Chikitsasthana 6/4, Page no. 445
- (13) Vaidya Yadavji Trikamaji Acharya, *Charak Samhita with Ayurveda -Dipika commentary*, Edition 2021, Chaukhambha Orientalia, Vimansthana 7/14, Page no. 259
- (14) Vaidya Yadavji Trikamaji Acharya, *Charak Samhita with Ayurveda -Dipika commentary*, Edition 2021, Chaukhambha Orientalia, Chikitsasthana 6, Page no. 446-450
- (15) Vaidya Yadavji Trikamaji Acharya, *Sushruta Samhita with Nibandhasangraha commentary*, Edition 2021, Chaukhambha Orientalia, Chikitsasthana 11, Page no. 451-454
- (16) Laalchandra shastri Vaidya, *Ashtanga sangraha with Sarvanga sundari commentary*, Edition 1989, Vaidyanath ayurveda bhawan private limited, Chikitsasthana 14, Page no. 838-852
- (17) Vaidya Yadavji Trikamaji Acharya, *Sushruta Samhita with Nibandhasangraha commentary*, Edition 2021, Chaukhambha Orientalia, Chikitsasthana 11, Page no. 453
- (18) Indradeva Tripathi, Chakradutta, Edition 2010, Chaukhambha Sanskrit Bhawan, *Prameha chikitsa* 35/60, Page no. 220