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A CONCEPTUAL REVIEW OF PRAMEHA ACCORDING TO AYURVEDA AND CONTEMPORARY SCIENCE

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ABSTRACT

Prameha is enumerated among the *Ashtau Mahagada* — the eight gravest and most difficult-to-cure disorders — a placement that itself conveys the seriousness our *Acharyas* attached to the disease.[1] Etymologically *Prameha* (Pra + Mih) signifies *Prabhuta* (excessive) and *Avila* (turbid) *mutrata*, the twin cardinal feature of the disease.[2] In essence it is a *Kleda-pradhana, Medovaha-srotodushti-janya vyadhi* born chiefly of *Santarpana* (over-nourishment), a sedentary and sleep-indulgent mode of living, and hereditary predisposition. The classics describe twenty varieties of *Prameha* — ten *Kaphaja*, six *Pittaja* and four *Vataja* — graded in severity, with *Madhumeha*, a *Vataja* type, representing the terminal and most intractable stage into which neglected *Pramehas* ultimately culminate.[3] The *Samprapti* turns upon vitiation of *Kapha* and *Meda* obstructing the channels (*Avarana*), or upon *Dhatukshaya* driving *Vata*, with *Vata* acting as the *Anubandha dosha* in both pathways. In contemporary terms the *Prameha* spectrum corresponds broadly to the continuum of obesity, metabolic syndrome, prediabetes, diabetes mellitus and allied urological disorders. The present review consolidates the *Nidana, Purvarupa, Rupa, Samprapti, Bheda, Upadrava, Sadhya-asadhyata* and *Chikitsa-siddhanta* of *Prameha* from the *Brihattrayi*, correlated with modern understanding, so as to clarify its pathogenesis and to frame the scope and limitations of its management.

KEYWORDS: *Prameha, Madhumeha, Ashtau Mahagada, Medovaha srotas, Santarpanajanya vyadhi, Diabetes Mellitus, Metabolic Syndrome.*

INTRODUCTION

Among the vast nosology of Ayurveda, *Prameha* holds a position of singular importance, being counted by Acharya Charaka among the *Ashtau Mahagada* (eight major disorders).[1] Their very grouping signals that these are *mahat* (great) both in the difficulty of their management and in the breadth of systems they disturb. *Prameha* is a *chirakari* (chronic) and *yapya*-to-*asadhya* (palliable to incurable) metabolic disorder that, left unchecked, spares scarcely any *dhatu* of the body.

The term is formed of the root *Mih* — to sprinkle, to pass watery matter — prefixed by *Pra*, denoting excess; thus *Prameha* names a disease defined by *Prabhuta-avila mutrata*.[2] Acharya Charaka deals with it in both *Nidana* and *Chikitsa Sthana*; Acharya Sushruta, who classifies disease by the *srotas* involved, treats it at length in *Nidana* and *Chikitsa Sthana*; and Acharya Vagbhata elaborates it in both the *Ashtanga Hridaya* and the *Ashtanga Sangraha*.[4]

All twenty varieties share one common *Samprapti* rooted in the vitiation of *Kapha* together with *Meda* and *Mamsa*, differing only in the *Dushya* predominant in each and in the resulting quality of the urine. It is categorically stated that the *Kaphaja* and *Pittaja* varieties, if neglected or improperly treated, terminate in *Vataja Prameha*, of which *Madhumeha* is the gravest expression.[3] On this account *Madhumeha* is often spoken of synonymously with *Prameha*, as Chakrapani notes.

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Rationale

For decades, control of blood glucose has ceased to be the principal obstacle in diabetes care; a wide array of oral hypoglycaemics and insulin preparations now make glycaemic control readily attainable. Yet *Prameha* — and especially its terminal form *Madhumeha* — remains a leading cause of morbidity and mortality, the real burden having shifted from the disease itself to the prevention and management of its *upadravas* (complications). The *Prameha* framework, being founded on *Prakriti* (constitution), *Ahara-Vihara* (diet and regimen) and *Nidana parivarjana* (avoidance of causes), offers a preventive and constitution-based model that is strikingly relevant to the present epidemic of lifestyle disorders.

AIMS AND OBJECTIVES

To study, in depth, the pathogenesis of Prameha and its varieties according to both Ayurvedic and modern literature.

- To highlight the classical knowledge of *Prameha* as laid down in the *Brihattrayi* with its commentaries.
- To critically analyse the classification and clinical spectrum of *Prameha* and to correlate it with contemporary metabolic and urological disease.

MATERIALS AND METHODS

The conceptual and reference material was compiled from the Ayurvedic classics of the *Brihattrayi* — *Charaka Samhita*, *Sushruta Samhita* and *Ashtanga Hridaya* — together with their available commentaries, from the *Laghutrayi* (*Madhava Nidana*, *Bhavaprakasha*, *Yogaratnakara*), and from standard modern texts of medicine and relevant peer-reviewed journals.

NIRUKTI AND PARIBHASHA (ETYMOLOGY)

Prameha: *Pra* (intense, excessive) + *Mih* (to pass watery matter) = a disease marked by excessive and turbid micturition.[2]

Diabetes: from the Greek *diabainein* — “to pass through” or “siphon” — denoting the copious elimination of urine.[6] The two terms are thus conceptually congruent. Further, *Madhu* and *mellitus* both mean honey, so that *Madhumeha* and *Diabetes Mellitus* alike denote the passage of large quantities of sweet urine.

NIDANA (ETIOLOGY)

Samanya Nidana (General causes)

All *Kaphakara* and *Medokara Ahara-Vihara* constitute the common causes of *Prameha*, as *Kapha* is the chief vitiated *dosha* (*kaphakrit cha sarvam*).[7] Acharya Charaka enumerates them thus.

[illegible] ।

[illegible] च [illegible] ॥[7]

That is: *Asyasukham* (a sedentary, ease-loving life), *Swapnasukham* (indulgence in sleep, especially day-sleep), *Dadhi* (curds), the *rasa* of *Gramya-Audaka-Anupa* animals (domestic,

aquatic and marshy meats), *Payamsi* (milk and its products), *Navanna-pana* (freshly harvested grains and drinks), *Guda-vikriti* (jaggery preparations), and in sum everything that augments *Kapha*.

Vishesha Nidana (Specific causes)

Acharya Charaka, in the *Nidana Sthana*, assigns distinct causative factors to the *Vataja*, *Pittaja* and *Kaphaja* varieties.[8] Sushruta holds that *Madhumeha* arises from indulgence in *Sheeta* (cold), *Snigdha* (unctuous), *Madhura* (sweet) and *Dravanna* (liquid) foods.[9] Vagbhata underscores those *Ahara-Vihara* that vitiate *Kapha* and *Medas* and increase *Mutra*.[10] *Vayaja* (age-related) and *Kalaja* (seasonal/temporal) factors also play a part.

Sahaja and Apathyanimittaja

Sushruta describes two fundamental origins of the disease.[9]

1. ***Sahaja*** — hereditary/congenital, arising from *Beeja-dosha* (defect of the reproductive seed); genetic predisposition and familial aggregation are here the prime factor.
2. ***Apathyanimittaja*** — acquired, consequent upon unwholesome diet and regimen (*apathya*). The *Kapha-medokara nidanas* abnormally augment *Sneha* and *Kleda* in the body, forming the etiological basis of *Madhumeha*. In the parallel modern account, factors that raise serum free fatty acids with elevation of VLDL and triglyceride, deranging lipid metabolism, form the etiological basis of Diabetes Mellitus.

PURVARUPA (PRODROMAL FEATURES)

The premonitory features signalling impending *Prameha* are described across the *Brihattrayi* and include.[11]

- *Jatilibhava of kesha* — matting/tangling of the hair.
- *Kara-pada-daha / suptata* — burning and numbness of the palms and soles.
- *Deha-chikkanata / snigdhata* — unctuousness and oiliness of the body.
- *Asya-madhurya* — sweetish taste in the mouth.
- *Mukha-shosha, trishna* — dryness of mouth and excessive thirst.
- *Shaithilya of anga* — looseness/flabbiness of the body parts.
- *Mala-mutra-adhikya* — increase in excreta and urine.
- *Pipilika-sarana* — swarming of ants to the urine/body (sweetness).
- *Nakha-kesha-ativriddhi* — excessive growth of nails and hair.

RUPA (CLINICAL FEATURES)

The two universal, *pratyatmaka* (cardinal) features common to every variety are *Prabhuta mutrata* (greatly increased volume and frequency of urine) and *Avila mutrata* (turbidity of urine).[12] The disease being *Medovaha-srotodushti-janya*, the abnormality becomes *vyakta* (manifest) in the *Mutravaha srotas* as altered *rasa* (taste), *gandha* (smell), *varna* (colour) and *sparsha* (touch) of the urine.

Sushruta memorably portrays the *alasya* and *tandra* of these patients: a walking person prefers to sit, a sitting one to lie down, a reclining one to sleep, and a sleeping one dislikes being woken.[13] Beyond these, each of the twenty *Mehas* is distinguished by the specific quality of the urine, as set out below.

BHEDA (CLASSIFICATION — THE TWENTY PRAMEHAS)

On the basis of *dosha* predominance the classics enumerate twenty *Pramehas* — ten *Kaphaja*, six *Pittaja* and four *Vataja* — each named for the characteristic of the urine passed.[14] This progression from *Kaphaja* (most manageable) through *Pittaja* to *Vataja* (most grave) also expresses the natural deterioration of an untreated disease.

Table 1: The ten Kaphaja Pramehas and the character of the urine.

No.	Prameha	Character of the mutra
1	Udakameha	Clear, cold, odourless, abundant urine resembling water
2	Ikshuvalikarasameha (Ikshumeha)	Sweet urine resembling sugarcane juice
3	Sandrameha	Urine that becomes dense/thick (sandra) on standing
4	Surameha	Urine like sura (wine) — turbid above, clear below
5	Pishtameha	White, frothy urine like pishta (flour paste), with horripilation
6	Shukrameha	Urine resembling or admixed with shukra (semen)
7	Sikatameha	Urine with gritty, sand-like (sikata) sediment
8	Shitameha	Cold and sweet urine passed frequently
9	Shanairmeha	Urine passed slowly and with difficulty (shanaih)
10	Lalameha (Alalameha)	Slimy, ropy urine with threads, like lala (saliva)

Table 2: The six Pittaja Pramehas and the character of the urine.

No.	Prameha	Character of the mutra
1	Ksharameha	Urine resembling kshara (alkali) in colour, smell and taste
2	Kalameha	Black (kala) urine, like ink
3	Neelameha	Blue (neela) urine
4	Raktameha (Lohitameha)	Red, salty, foul-smelling urine resembling blood
5	Manjishthameha	Urine the colour of manjishtha (reddish-brown), foul-

		smelling
6	Haridrameha	Yellow, pungent urine resembling haridra (turmeric)

Table 3: The four Vataja Pramehas and the character of the urine.

No.	Prameha	Character of the mutra
1	Vasameha	Urine admixed with vasa (muscle-fat)
2	Majjameha	Urine admixed with majja (bone-marrow)
3	Hastimeha (Kshaudrameha)	Urine passed continuously, dense, with lasika, like a rutting elephant
4	Madhumeha	Astringent-sweet (kashaya-madhura), pale honey-like urine; the body itself turns sweet

Note: in the *Vataja* group the classics vary slightly — Charaka reads *Hastimeha*, whereas some readings of Sushruta give *Kshaudrameha*; *Madhumeha* is common to both and is regarded as the terminal variety.[14]

SAMPRAPTI (PATHOGENESIS)

On continued exposure to the *nidanas*, *Kapha* and *Meda* undergo *vriddhi*; the aggravated *Kapha*, being *drava* (liquid) and *bahu* (abundant), is carried by *Vyana vayu* throughout the body, where it vitiates *Meda*, *Mamsa* and the *sharira-kleda*. This vitiated, loosely-bound *dushya-sanghata* descends to the *Basti* (bladder) and is expelled as *Prabhuta-avila mutra*.[15] *Madhumeha* is a disorder of *vikara-vighata-bhava-abhava* — the absence of those factors that would ordinarily arrest the disease — involving virtually all *dhatus* and *Ojas*.

Two divergent pathways are recognised. In the *Avaranajanya* (obstructive) pathway, abundant *Kapha* and *Meda* cause *margavarana* (channel-obstruction), secondarily provoking *Vata*; this is the *Santarpanajanya*, *Sthula* variety. In the *Dhatukshayajanya* (depletive) pathway, *Dhatukshaya* directly aggravates *Vata*; this is the *Apatarpanajanya*, *Krusha* variety. In both, *Vata* is the *Anubandha dosha*, and its involvement marks the transition toward *Madhumeha*.

Table 4: Samprapti Ghatakas of Prameha.

Ghataka	Component
Dosha	Kapha (pradhana), Pitta, Vata
Dushya	Meda, Mamsa, Kleda, Shukra, Rakta, Vasa, Majja, Lasika, Rasa, Oja
Srotas	Medovaha (pradhana), Mutravaha, Udakavaha, Swedavaha
Srotodushti	Atipravritti (over-flow)
Agni	Dhatwagnimandya (chiefly Medodhatwagnimandya)
Udbhavasthana	Amashaya
Adhishthana	Basti
Vyadhi-swabhava	Chirakari (chronic)
Sadhyasadhyata	Kaphaja — Sadhya; Pittaja — Yapya; Vataja —

	Asadhya

The *Dushyas* and *srotomula* implicated — the *Vapavahana* (omentum) and *Vrukka* (kidney) — are conveniently correlated with the pancreas and the suprarenals, so that the *Avaranajanya* and *Dhatukshayajanya* mechanisms broadly mirror the insulin-resistant and insulin-deficient states of modern pathophysiology.

UPADRAVA (COMPLICATIONS)

Neglected *Prameha* gives rise to characteristic complications, foremost among which are the ten *Prameha pidakas* (deep-seated boils/carbuncles), correlating with the diabetic carbuncles and non-healing ulcers of modern practice.[16]

Sharavika, *Sarshapika*, *Kacchapika*, *Jalini*, *Vinata*, *Alaji*, *Masurika*, *Putrini*, *Vidarika* and *Vidradhika*.

Other *upadravas* include *Trishna* (thirst), *Daha* (burning), *Atisara* (diarrhoea), *Jwara* (fever), *Kasa-Shwasa* (cough and dyspnoea), *Pandu* (anaemia), *Aruchi* (anorexia) and *Murchha*. In *Kaphaja Madhumeha* the *upadravas* are *Kapha-pradhana*, whereas in *Vataja Madhumeha* they are *Vata-pradhana* and more grave.[16]

SADHYA-ASADHYATA (PROGNOSIS)

Table 5: Prognosis of the Pramehas.

Variety	Modern correlate	Prognosis
Kaphaja Prameha (10)	Early / obese metabolic disorder	Sadhya (curable)
Pittaja Prameha (6)	Established disease, manageable	Yapya (palliable)
Vataja Prameha (4)	Advanced / depleted state	Asadhya (incurable)
Sthula / Apathyanimittaja	Obese diabetic	Kashtasadhya (difficult)
Krusha / Sahaja Madhumeha	Lean diabetic / juvenile onset	Asadhya
Prameha with Upadrava	Diabetes with complications	Asadhya
Nava (recent) vyadhi	Recent-onset disease	Sadhya
Purana (chronic) vyadhi	Long-standing disease	Yapya / Asadhya

A notable prognostic test is the *Tailabindu pariksha* (oil-drop test): when a drop of oil placed on the urine spreads in the shape of a serpent or an owl, the *Madhumeha* is deemed *asadhya* (incurable).[17] The availability of the *chikitsa-chatushpada* — a cooperative, intelligent patient, early diagnosis and prompt treatment — together with diligent *Nidana parivarjana*, materially improves the outlook.

CHIKITSA SIDDHANTA (PRINCIPLES OF MANAGEMENT)

The cardinal maxim is that *Santarpana-nimittaja vyadhi* is treated by *Apatarpana*, and *Apatarpana-nimittaja vyadhi* by *Santarpana*.[18] Management therefore turns upon the *bala* (strength) and *deha-prakriti* of the patient.

1. ***Sthula Pramehi*** (obese, strong; *margavaranajanya*): *Apatarpana* and *Samshodhana* — *Vamana*, *Virechana*, *Rukshana*, *Vyayama* and *Kaphamedohara* measures. This corresponds to diet, exercise and oral hypoglycaemics in the obese (NIDDM-type) patient.
2. ***Krusha Pramehi*** (lean, weak; *dhatukshayajanya*): *Santarpana* and *Brimhana* — nourishing, *Vata-shamaka* and *Rasayana* therapy. This corresponds to replacement (insulin) in the thin, depleted (IDDM-type) patient.

Throughout, *Nidana parivarjana* is held to be the first and foremost step of treatment. Commonly employed drugs include *Shilajatu*, *Haridra-Amalaki (Nisha-Amalaki)*, *Triphala*, *Guduchi*, *Meshashringi (Gurmar)*, *Vijayasara* and various *Rasaushadhis*, used alongside *Pathya* (old grains, barley, *yava*, bitter vegetables) and strict avoidance of *Apathya*.

DISCUSSION

Read as a whole, *Prameha* is best understood not as diabetes alone but as a broad syndromic category of disorders of *Prabhuta-avila mutrata* — excessive and turbid urine. Its twenty varieties, defined by the colour, consistency, taste and admixtures of the urine, encompass a spectrum that in modern terms would include glycosuria, proteinuria, phosphaturia, lipiduria, chyluria, haematuria and urinary tract infection, in addition to diabetes mellitus. *Madhumeha*, the sweet-urine variety, is the specific correlate of Diabetes Mellitus.

The *Santarpana* / *Apatarpana* duality of pathogenesis maps instructively onto contemporary metabolic understanding. The *Santarpanajanya*, *Sthula* pathway — over-nutrition, sedentary living and *margavarana* — parallels obesity, insulin resistance and the metabolic syndrome that underlie type-2 diabetes; the *Dhatukshayajanya*, *Krusha* pathway — depletion and unopposed *Vata* — parallels the catabolic, insulin-deficient state of type-1 diabetes.[19] Consistently, the *Lakshanas* of *Kapha-sambhava Madhumeha* resemble NIDDM, and those of *Anilatmaka (Vataja) Madhumeha* resemble IDDM.

Table 6: Differentiation of Kapha-sambhava and Anilatmaka Madhumeha.

Feature	Kapha-sambhava (NIDDM-like)	Anilatmaka / Vataja (IDDM-like)
Rogi (patient)	Sthula, balavan (obese, strong)	Krusha, durbala (lean, weak)
Udbhava (origin)	Santarpanajanya	Dhatukshaya / Apatarpanajanya
Vaya (age)	Madhya-vaya to senile	Usually young at diagnosis

Vyadhi-swarupa	Chirakari (slow)	Ashukari (rapid)
Sadhyasadhyata	Sadhya at onset, then Kashtasadhya	Asadhya
Chikitsa-siddhanta	Apatarpana / Samshodhana	Santarpana / Brimhana

CONCLUSION

- *Prameha* is a comprehensive, twenty-fold syndromic category centred on excessive and turbid micturition, of which *Madhumeha* is the terminal *Vataja* form correlating with Diabetes Mellitus.
- The *Santarpana* / *Apatarpana* model of pathogenesis offers a constitution- and lifestyle-based framework that maps onto the modern obesity–insulin-resistance and insulin-deficiency continuum.
- *Lakshanas* of *Anilatmaka Madhumeha* resemble IDDM and those of *Kapha-sambhava Madhumeha* resemble NIDDM, and their *hetus* are instructive for treatment.
- *Nidana parivarjana* is the first and most important step, aligning with the modern primacy of lifestyle modification in prevention and control.
- The framework is valuable for understanding and preventing the broader spectrum of metabolic and urological disease, not diabetes alone.

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