



“Integrated *Ayurvedic* and *Yogic* Management of *Kaphaja Prameha* (Pre-Diabetes): A Case Report”

¹Dr. Aishwarya M P, ²Dr. Nusaiba, ³Dr. Remi Elizabeth

¹Final Year Post Graduate Scholar, ²Associate Professor, ³Associate Professor

Department of Swasthavritta & Yoga,

Alva's Ayurveda Medical College And Hospital, Moodubidre, Karnataka, India.

Abstract

Pre-diabetes is a critical metabolic stage with high risk of progression to Type 2 Diabetes Mellitus if not addressed timely. *Ayurveda* conceptualizes this condition under *Kaphaja Prameha*, a disorder predominantly arising from improper diet, sedentary lifestyle, and *Kapha-Meda* vitiation. This case report presents the successful management of a pre-diabetic patient using *Ayurvedic* lifestyle modification (*Nidana Parivarjana*, *Pathya-Apathya*) along with structured *Yogic* practices. Significant improvement was observed in subjective symptoms, metabolic stability, and overall well-being, highlighting the preventive and promotive role of *Ayurveda* and *Yoga* in lifestyle disorders.

Keywords: *Kaphaja Prameha*, Pre-diabetes, *Ayurveda*, *Yoga* therapy, Lifestyle modification

Introduction

Diabetes mellitus has emerged as a global public health challenge due to rapid urbanization, sedentary lifestyle, and unhealthy dietary patterns. Pre-diabetes represents an intermediate metabolic state characterized by impaired fasting glucose, impaired glucose tolerance, or raised HbA1c levels. Modern medicine primarily focuses on monitoring glycemic indices and pharmacological intervention, whereas *Ayurveda* emphasizes prevention by addressing the root causative factors.

In *Ayurvedic* classics, *Prameha* is described as a *Santarpanajanya Vyadhi*, caused by excessive intake of *Guru*, *Snigdha*, *Madhura Ahara* and lack of physical activity, leading to *Kapha* and *Meda* vitiation¹. Early stages dominated by *Kapha* are considered *Sadhya* if managed through lifestyle correction. Integration of *Yoga* further enhances metabolic balance, improves insulin sensitivity, and reduces stress-induced hyperglycemia².

Case Presentation

A 38-year-old male IT professional from Mysuru presented to the *Swasthavritta* OPD on 14/05/2025 with complaints of generalized weakness for three months, excessive thirst, increased frequency of urination, and heaviness of body for two months. Associated symptoms included post-prandial drowsiness, excessive sweating, mild itching over skin folds, and reduced work efficiency.

Personal and Lifestyle History

The patient consumed a mixed diet with irregular meal timings and frequent intake of fried snacks, sweets, bakery products and tea. He had a sedentary occupation involving prolonged computer work (>8 hours/day), habit of day sleep, late-night sleep and lack of regular exercise.

Clinical Examination

- * BMI: 27.8 kg/m² (Overweight)
- * Blood Pressure: 130/80 mmHg
- * *Asthavidha Pariksha*: Kapha-Pitta dominant Nadi, increased Mutra frequency
- * *Dashavidha Pariksha*: Kapha-Pitta Prakruti, Kapha-Meda Vikruti, Madhyama Satva

Investigations

- * Fasting Blood Sugar – 108 mg/dL
- * Post-prandial Blood Sugar – 148 mg/dL
- * HbA1c – 6.1%
- * Lipid profile – Raised triglycerides
- * Urine routine – Normal

Diagnosis

Kaphaja Prameha (Pre-diabetes)

Samprapti (Pathogenesis)

Excessive consumption of *Guru*, *Snigdha* and *Madhura Ahara* along with *Avyayama* and *Diwaswapna* leads to *Kapha-Meda Vriddhi*. Vitiated *Kapha* mixes with *Kleda* and travels through *Rasavaha* and *Medovaha Srotas*, finally reaching *Basti* and manifesting as *Prabhuta Mutrata*, *Gaurava*, *Atinidra*, and *Daurbalya*³.

Management Protocol

1. Nidana Parivarjana

Avoidance of junk food, sweets, excessive dairy, day sleep, and sedentary habits.

2. Pathya Ahara (Dietary Guidelines)

Whole grains like *Yava*, *Godhuma*, Jowar, Bajra, Ragi. Pulses such as *Mudga* and *Kulattha*. Vegetables including bitter gourd, bottle gourd, drumstick, spinach. Fruits like Jamun, pomegranate, papaya and use of fenugreek, flaxseed, garlic, cinnamon were advised. Cooking methods included steaming, boiling and sauteing instead of frying⁴.

3. Apathya Ahara

Sweets, refined carbohydrates, bakery products, fried foods, excess dairy, and high-glycemic fruits were strictly avoided.

4. Yoga Intervention

* *Sukshma Vyayama*: Joint mobilization exercises (15 minutes)

* *Asanas*: *Tadasana*, *Trikonasana*, *Ardhachakrasana*, *Vajrasana*, *Paschimottanasana*, *Bhujangasana*, *Dhanurasana*, *Pavanamuktasana*, *Setubandhasana*

* *Pranayama*: *Nadi Shuddhi*, *Bhramari*, mild *Kapalabhati*

Mechanism of Action (Ayurvedic and Modern Perspective)

The management was designed to act on the major components of the samprapti—Kapha-Meda accumulation, Kleda, Agnimandya, Avyayama and impaired metabolic regulation. Each intervention has a complementary Ayurvedic rationale and a plausible physiological action. The mechanisms below are interpreted from Ayurvedic principles and the known effects of dietary regulation, physical activity, posture and breathing practices.

The combined approach therefore aims not merely to alter a laboratory glucose value, but to reduce the causative load, improve energy expenditure, support healthy body composition, regulate appetite and sleep–wake behaviour, and improve the patient's capacity for sustained lifestyle change.

Overall, the interventions act synergistically: Nidana Parivarjana removes the metabolic load; Pathya-Apathya regulates substrate intake; Sukshma Vyayama and Asanas increase muscular activity and energy expenditure; and Pranayama supports autonomic and stress regulation. In Ayurvedic terms, this combination addresses Kapha-Meda and Kleda while supporting Jatharagni and correcting the lifestyle factors contributing to Srotodushti.

Management Intervention	Ayurvedic rationale	Mode of action / mechanism on the body
Sukshma Vyayama – 15 min	Counters Avyayama, promotes movement, reduces Gaurava and supports Langhana.	Muscle activity increases energy expenditure and glucose uptake by active skeletal muscle; movement breaks also reduce prolonged sitting.
Tadasana	Promotes steadiness, postural awareness and active standing.	Upright posture recruits lower-limb and trunk muscles, increases postural work and encourages mindful breathing and body awareness.
Trikonasana	Promotes active stretching and movement of trunk and limbs, supporting Langhana and reducing stiffness/Gaurava.	Weight-bearing and trunk/limb muscle engagement increase energy expenditure and muscular glucose utilization while improving mobility.
Ardhachakrasana	Provides active trunk extension and counters prolonged sedentary posture.	Engages spinal and trunk musculature and encourages chest expansion; the active

		posture adds muscular work to the daily routine.
Vajrasana	Provides a stable posture for mindful practice and is traditionally used for comfortable post-meal sitting.	Supports relaxation and mindful breathing; it may discourage immediate reclining after meals, but it should not be considered a direct glucose-lowering treatment.
Paschimottanasana	Controlled forward bending supports relaxation and mindful regulation.	Sustained trunk/lower-limb engagement with slow breathing supports mobility and relaxation; reduced autonomic arousal may indirectly support healthier metabolic behaviour.
Bhujangasana	Encourages active trunk movement and reduces stiffness associated with sedentary behaviour.	Activates spinal and shoulder musculature and promotes chest expansion; muscular work contributes to energy expenditure.
Dhanurasana	A relatively active posture used in a graded routine to counter inactivity and Gaurava.	Requires coordinated contraction of back, shoulder, hip and leg muscles, increasing whole-body muscular work and energy expenditure.
Pavanamuktasana	A gentle abdominal/trunk posture traditionally associated with abdominal regulation.	Hip and trunk flexion engages abdominal and lower-limb musculature; its metabolic contribution is mainly through muscular activity within the exercise routine.
Setubandhasana	Active bridging posture promotes strength and counters inactivity.	Engages gluteal, hamstring and trunk muscles, increasing skeletal-muscle glucose utilization and energy expenditure.
Nadi Shuddhi	Promotes Prana regulation and mental calmness.	Slow alternate-nostril breathing encourages slower respiration and parasympathetic predominance, supporting stress regulation and indirectly healthier appetite/sleep patterns.
Bhramari	Promotes mental tranquillity and calmness.	Slow breathing with humming encourages relaxation and may reduce sympathetic arousal, supporting stress

		management.
Mild Kapalabhati	Used in mild, graded form as an activating practice to counter Kapha dominance.	Repeated active exhalations increase respiratory muscle activity and ventilatory work. It should be individualized and is not a replacement for medical care.

Discussion

The present case illustrates the clinical relevance of early lifestyle-oriented management in Kaphaja Prameha, particularly at a pre-diabetic stage. The patient presented with Gaurava, Daurbalya, excessive thirst, increased urinary frequency, post-prandial drowsiness and reduced work efficiency, together with overweight status, sedentary occupation and frequent intake of fried, sweet and bakery foods. These findings provided a coherent nidana profile for the observed metabolic disturbance. Management was therefore directed primarily towards removing causative factors and improving daily metabolic behaviour rather than targeting a single symptom.

From the Ayurvedic perspective, Prameha is closely associated with Santarpana and vitiation of Kapha, Meda and Kleda. Guru, Snigdha and Madhura Ahara, Avyayama and Diwaswapna can be understood as factors that progressively increase Kapha-Meda and disturb normal metabolic processing. The described samprapti indicates that excess Kleda, associated with vitiated Kapha, contributes to manifestation through the relevant srotas and ultimately produces features such as Prabhuta Mutrata, Gaurava and Daurbalya. The therapeutic strategy of Nidana Parivarjana, Pathya-Apathya and increased physical activity is therefore consistent with treating the cause and interrupting the disease process.

Nidana Parivarjana formed the foundation of management. Avoidance of sweets, junk foods, frequent fried snacks, excessive dairy, day sleep and prolonged sedentary behaviour directly reduced exposure to factors responsible for Kapha-Meda accumulation. Continued exposure to the same nidanas could otherwise counteract the benefits of any isolated intervention. From a contemporary metabolic perspective, reducing refined and energy-dense foods and increasing daily movement supports better glucose regulation and limits excess energy intake.

Pathya Ahara was planned to provide a sustainable alternative to the patient's previous dietary pattern. Whole grains and millets, pulses, vegetables and controlled portions of selected fruits increase dietary variety while reducing dependence on refined carbohydrates, sweets and fried foods. Steaming, boiling and sautéing further reduce unnecessary added fat. Thus, the dietary intervention should be understood as correction of the overall food pattern, quantity and quality rather than as the effect of any single food.

The inclusion of Mudga and Kulattha and fibre-rich vegetables supports satiety and helps replace highly processed foods. Jamun, pomegranate and papaya were advised as whole fruits in appropriate portions rather than as sweetened juices. Fenugreek, flaxseed, garlic and cinnamon were used as supportive dietary additions. Their role should be interpreted as complementary to the overall Pathya diet and lifestyle correction, not as independent pharmacological substitutes.

Apathya Ahara avoidance was equally important. Sweets, refined carbohydrates, bakery products and fried foods can provide readily available carbohydrate and/or high energy density with relatively low satiety. Replacing these foods with minimally processed, fibre-containing meals can help control appetite and reduce repeated high-calorie snacking. Thus, Pathya and Apathya function together: Pathya provides a suitable dietary structure, while Apathya removes dietary triggers that perpetuate metabolic imbalance.

Yoga was incorporated to address Avyayama and the behavioural component of a sedentary lifestyle. Sukshma Vyayama provides a gradual transition from inactivity to regular movement. The selected asanas involve the trunk and limbs to different degrees and contribute to muscular activity, mobility,

posture and energy expenditure. Regular skeletal-muscle activity is particularly relevant to glucose homeostasis because active muscle can increase glucose uptake during exercise and regular training can improve metabolic efficiency.

The asana sequence should not be interpreted as acting through one isolated organ or through a single mechanical stimulation of the pancreas. Rather, the probable benefit is multifactorial. Tadasana and Trikonasana encourage postural control and active engagement of the limbs and trunk; Ardhaachakrasana, Bhujangasana and Dhanurasana increase trunk and spinal muscle activity; Setubandhasana recruits gluteal, hamstring and trunk musculature; and Pawanmuktasana provides controlled abdominal/trunk movement. Paschimottasana and Vajrasana support controlled, mindful practice and relaxation. Collectively, these practices increase physical activity and may improve adherence by making movement structured and achievable.

Pranayama complements the physical component of Yoga by addressing stress and autonomic regulation. Nadi Shuddhi and Bhramari are predominantly calming practices that encourage slow, controlled respiration. This may reduce perceived stress and sympathetic arousal and can indirectly support healthier eating, sleep and daily routines. Mild Kapalabhati was included in a graded manner as an activating practice; it should be individualized and modified or avoided when contraindicated.

The modern physiological interpretation of the integrated programme is therefore based on several interacting pathways. Increased muscular activity raises glucose utilization and energy expenditure; dietary fibre and reduced refined carbohydrate intake can moderate post-prandial glucose excursions; weight-management-oriented dietary correction can improve metabolic risk; and stress reduction may decrease behavioural and neuroendocrine influences on appetite and glycaemic regulation. These mechanisms are complementary rather than mutually exclusive.

The recorded fasting blood sugar of 108 mg/dL, post-prandial value of 148 mg/dL and HbA1c of 6.1% were considered along with BMI 27.8 kg/m² and raised triglycerides. These findings emphasized the need for comprehensive lifestyle correction. The normal urine routine indicates that no urinary abnormality was documented in the available investigations. The overall clinical picture supported a preventive approach aimed at reducing the risk of progression to overt diabetes.

The improvement described in the case in terms of energy, heaviness and general well-being is clinically relevant because these subjective features correspond with the initial Kapha-dominant presentation. However, a single case cannot establish causality or determine which component contributed most to improvement. The response should therefore be interpreted as supportive clinical evidence for an integrated approach rather than proof of efficacy. Longer follow-up and standardized objective outcomes would strengthen future evaluation.

A major strength of the approach is feasibility and patient participation. The intervention modifies food choices, activity, sleep-related behaviour, exercise and breathing practices within the patient's daily routine. Such participation is especially relevant in pre-diabetes, where sustained lifestyle modification is central to risk reduction. The Ayurvedic framework adds an individualized understanding through Prakriti, Vikriti, Ahara and Vihara, while Yoga provides a structured method of physical and mental regulation.

The limitations of a case report must also be acknowledged. There is no control group, the intervention contains multiple components, and the relative contribution of diet, exercise, asana, pranayama and behavioural changes cannot be separated. Detailed quantitative pre-post outcomes and long-term follow-up are also limited in the present report. Larger prospective studies with standardized protocols, objective metabolic outcomes and adequate follow-up are required to establish effectiveness and reproducibility.

Overall, the case supports the classical preventive principle of intervening at an early stage of metabolic derangement. Kaphaja Prameha can be approached through removal of causative factors, appropriate Pathya-Apathya, increased physical activity and regulation of mental and behavioural factors. The integrated Ayurvedic and Yogic model provides a holistic framework in which diet, activity, sleep, body

composition and mental state are addressed together, particularly for individuals whose metabolic risk is strongly associated with sedentary work and unhealthy lifestyle patterns.

Conclusion

Kaphaja Prameha, being a lifestyle-induced disorder, responds effectively to a structured, non-pharmacological approach. This case demonstrates that integrating Ayurvedic dietary regulation, lifestyle correction and *Yoga* can successfully manage pre-diabetes and prevent its progression to overt diabetes. Early diagnosis and disciplined adherence to *Pathya-Apathya* play a crucial role in long-term metabolic health.

References

1. Agnivesha. Charaka Samhita. Chakrapani commentary. Varanasi: Chaukhambha Orientalia; 2019. Nidana Sthana, Prameha Nidana Adhyaya, 4/7, p. 212.
2. Tirtha SSS. The Ayurveda Encyclopedia. Bayville (NY): Ayurveda Holistic Center Press; 2005. p. 356.
3. Sushruta. Sushruta Samhita. Dalhana commentary. Varanasi: Chaukhambha Surbharati Prakashan; 2018. Chikitsa Sthana, Prameha Chikitsa Adhyaya, 11/3, p. 458.
4. Rivers J. Ayurveda for Beginners. London: Independently Published; 2021. p. 144.
5. Rao R. Good Living Practices. Kaivalya Wellness Publications; 2020. p. 89.
6. Tripathi B. Madhumeha Chikitsa. Varanasi: Chaukhambha Sanskrit Series Office; 2016. p. 176.
7. World Health Organization. Global Report on Diabetes. Geneva: World Health Organization; 2016. p. 31.