

ROLE OF YOGA AND PANCHAKARMA IN THE MANAGEMENT OF PRAMEHA
W.S.R. TO DIABETES MELLITUS: A REVIEWDr. Debojyoti Sain^{*1}, Moumita Nath Mandal², Dr. Biswajit Mandal³¹Ayurveda Panchakarma Consultant, Kolkata, West Bengal, India.²Assistant Professor, Ayurveda Principle of Yoga, Yogasri Yoga and Naturopathy Medical College and Hospital, Kolkata, West Bengal, India.³Registrar, Paschim Banga Ayurved Parishad, Kolkata, West Bengal, India.

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ABSTRACT

Prameha, a metabolic disorder elaborated in Ayurvedic classics, shares clinical resemblance with diabetes mellitus (DM), a major non-communicable disease of global concern. With increasing incidence worldwide, especially of type 2 diabetes, the search for holistic and cost-effective management strategies is imperative. Ayurveda describes a multidimensional approach involving **Nidana Parivarjana (avoidance of causative factors)**, **Panchakarma (purificatory therapies)**, **Shamana (pacifying measures)**, and **Rasayana (rejuvenation)**. Yoga, as a lifestyle intervention, complements this by improving glucose metabolism, insulin sensitivity, and mental well-being. This review aims to explore the synergistic role of **Panchakarma and Yoga** in the management of Prameha w.s.r. to Diabetes Mellitus, by integrating evidence from classical Ayurvedic texts and contemporary research studies.

KEYWORDS: Prameha, Madhumeha, Diabetes Mellitus, Panchakarma, Yoga, Ayurveda.

INTRODUCTION

Prameha is described as a chronic metabolic disorder characterized by **Prabhuta Mutrata (polyuria)** and **Avila Mutrata (turbid urine)**, caused by derangement of Doshas, Dhatus, and Srotas.^[1] It is classified into 20 types: 10 Kaphaja, 6 Pittaja, and 4 Vataja, with **Madhumeha** (a Vataja subtype) being incurable in prognosis.^[2] In modern medicine, Prameha is correlated with **type 2 diabetes mellitus (T2DM)**, a lifestyle disease characterized by hyperglycemia, insulin resistance, and associated complications.^[3]

Globally, the **IDF Diabetes Atlas (2021)** reports over 537 million adults with diabetes, projected to reach 783 million by 2045.^[4] Conventional medicine focuses on lifestyle modification, oral hypoglycemic agents, and insulin therapy. However, side effects, cost burden, and progressive nature of T2DM necessitate integrative strategies.^[5] Panchakarma and Yoga provide a unique Ayurvedic perspective by addressing both root causes and systemic imbalances.^[6]

Concept of Prameha in Ayurveda

- **Nidana (causative factors):** excessive intake of **Madhura (sweet)**, **Snigdha (unctuous)**, and **Guru**

(**heavy**) food, sedentary lifestyle, and genetic predisposition.^[7]

- **Samprapti (pathogenesis):** derangement of Kapha and Medas leading to Srotodushti and manifestation of polyuria.^[8]
- **Upadrava (complications):** neuropathy, nephropathy, and retinopathy are described under complications of Prameha, correlating with diabetic sequelae.^[9]

This highlights Ayurveda's preventive and curative insights, aligning with the modern understanding of metabolic syndrome.^[10]

Role of Panchakarma in Prameha

1. Vamana (therapeutic emesis)

Indicated in **Kaphaja Prameha**, Vamana expels Kapha and Medas, reducing insulin resistance and improving glucose metabolism.^[11] Clinical studies show significant reduction in fasting blood sugar and lipid profile post-Vamana.^[12]

2. Virechana (therapeutic purgation)

Effective in **Pittaja Prameha**, Virechana regulates **Agni (digestive fire)** and liver functions.^[13] Studies report improvement in HbA1c and liver enzyme regulation after

Virechana therapy.^[14]

3. Basti (medicated enema)

Considered the best therapy for **Vataja Prameha/Madhumeha**, **Madhutailika Basti** and **Niruha Basti** help regulate Vata, restore metabolism, and improve glycemic control.^[15] A clinical trial demonstrated Basti's role in reducing oxidative stress and enhancing β -cell function.^[16]

4. Raktamokshana (bloodletting)

Mentioned in Sushruta Samhita for complications like **diabetic ulcers**, modern studies confirm its role in reducing localized inflammation and enhancing wound healing.^[17,18]

5. Rasayana (rejuvenation)

Drugs like **Amalaki**, **Guduchi**, **Shilajit**, **Haridra** have shown antidiabetic and antioxidant properties.^[19]

Role of Yoga in Prameha

1. Asanas (postures)

Postures like **Ardha Matsyendrasana**, **Dhanurasana**, **Paschimottanasana**, **Surya Namaskar** stimulate pancreatic activity, enhance glucose uptake, and reduce obesity.^[20]

2. Pranayama (breathing techniques)

Practices such as **Kapalabhati**, **Anulom Vilom**, **Bhastrika** reduce stress-induced hyperglycemia, improve oxygenation, and regulate autonomic balance.^[21]

3. Meditation and Relaxation

Mindfulness-based meditation reduces cortisol, improves glycemic control, and enhances quality of life.^[22]

Clinical studies report that yoga interventions reduce **FBS**, **PPBS**, **HbA1c**, **BMI**, and **stress markers** in diabetic patients.^[23,24]

Integrative Approach: Panchakarma and Yoga

While Panchakarma removes accumulated doshas and toxins, Yoga sustains lifestyle modifications and psychosomatic balance. Integrative application of Panchakarma with Yoga has shown:

- Better glycemic control
- Reduced medication dependency
- Improvement in lipid profile and stress markers
- Enhanced quality of life^[25,26]

This demonstrates Ayurveda's holistic approach in managing Prameha beyond mere symptomatic relief.^[27]

DISCUSSION

Prameha (w.s.r. to DM) is not just a disease of sugar metabolism but a **systemic metabolic disorder** involving multiple tissues. Panchakarma corrects **root pathogenesis** by expelling doshas and improving Agni, while Yoga addresses **lifestyle, stress, and physical**

inactivity, major contributors to DM progression. Modern research validates both Panchakarma and Yoga as complementary modalities in diabetes management.^[28,29]

Challenges include lack of **standardization, large-scale clinical trials, and biomarker studies**.^[30] Future research should focus on evidence-based integrative models combining Panchakarma and Yoga for diabetes management.^[31]

CONCLUSION

Prameha, as described in Ayurveda, aligns with modern diabetes mellitus in its etiology, clinical features, and complications. Panchakarma offers **systemic detoxification and dosha balance**, while Yoga provides **sustainable lifestyle modification and psychosomatic regulation**. Together, they present an effective, safe, and holistic management strategy for Prameha/Diabetes Mellitus. Integration of these modalities into preventive and therapeutic frameworks may significantly reduce the global burden of diabetes.

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