



UNDERSTANDING OF STHOOLA PRAMEHI AND KRISHA PRAMEHI IN RELATION TO DIABETES MELLITUS

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ABSTRACT

Ayurveda, the ancient Indian system of medicine, classifies diseases based on Doshic imbalances. Among these, Prameha is a group of disorders, which bear a resemblance to the modern understanding of Diabetes Mellitus. Prameha is further classified into Sthoola Pramehi (associated with obesity) and Krisha Pramehi (associated with leanness). According to Ayurveda, Sthoola Pramehi results from the imbalance of Kapha and Meda (fat tissue) and the obstruction of normal body channels (Srotas) leading to insulin resistance, a hallmark of Type 2 Diabetes Mellitus. Modern correlations suggest that Sthoola Pramehi is akin to obesity-related diabetes, where the body's cells fail to respond effectively to insulin. Krisha Pramehi (Lean Diabetic) on the other hand, is observed in individuals with a lean body constitution. This condition is associated with the imbalance of Vata and depletion of Dhatus (body tissues), leading to frequent urination, emaciation, and general weakness. Krisha Pramehi aligns more closely with Type 1 rather than Type 2 Diabetes Mellitus, where the pancreas produces little or no insulin, necessitating external insulin administration. Both Sthoola and Krisha Pramehi manifest due to improper diet and lifestyle, leading to the accumulation of Ama (toxins) and impaired Agni (digestive fire). This results in altered glucose metabolism and urinary anomalies. Ayurvedic management of Prameha focuses on balancing the Doshas and restoring normal metabolic functions. Sthoola Pramehi is treated with therapies aimed at reducing Kapha and Meda, such as dietary modifications, regular physical activity, and herbal formulations like Nisha Triphala Yoga. Krisha Pramehi management involves strengthening the Dhatus and balancing Vata through nourishing diets, Rasayana (rejuvenative) herbs, and specific Panchakarma procedures.

KEYWORDS: - Ayurveda, Prameha, Sthoola Pramehi, Krisha Pramehi, Diabetes Mellitus, Type 1 Diabetes, Type 2 Diabetes, Meda Dhatu, Insulin Resistance, Metabolic Disorders, Traditional Medicine.

AIM AND OBJECTIVES

Aim

To explore the Ayurvedic concepts of Sthoola Pramehi and Krisha Pramehi and their relationship with Diabetes Mellitus.

Objectives

1. Compare the clinical presentations of Sthoola Pramehi and Krisha Pramehi with Diabetes Mellitus.
2. Examine the diagnostic criteria used in Ayurveda and modern medicine for these conditions.
3. Analyse traditional Ayurvedic treatments and their integration with contemporary diabetes management.
4. Promote a holistic approach by combining Ayurvedic and modern medical perspectives for enhanced patient care.

Methodology

The methodology for understanding Sthoola Pramehi and Krisha Pramehi in relation to Diabetes Mellitus involves a comparative analysis of Ayurvedic texts and modern medical literature. This includes identifying symptoms, causes, and treatments of Prameha from Ayurvedic sources and correlating them with the clinical features, pathophysiology, and management of Diabetes Mellitus as described in contemporary medical science. Clinical studies and case reviews will also be

conducted to assess the relevance and applicability of traditional Ayurvedic concepts in the diagnosis and treatment of Diabetes Mellitus.

INTRODUCTION

Diabetes mellitus is a long-term metabolic disease defined by raised blood glucose levels carried on by deficiencies in the action or secretion of insulin, or both. The prevalence of diabetes is rising globally, making it a major public health concern. Ayurveda, the traditional Indian system of medicine, offers a unique perspective on diabetes through the concept of Prameha. Prameha encompasses a group of urinary disorders, which include conditions that closely resemble the symptoms and pathophysiology of Diabetes Mellitus. Among the various types of Prameha, Sthoola Pramehi and Krisha Pramehi are particularly significant as they parallel the modern understanding of Type 2 and Type 1 Diabetes Mellitus, respectively. This article explores the Ayurvedic classification, pathophysiology, and management of Sthoola and Krisha Pramehi, providing insights into their relevance in contemporary diabetes care.

Ayurvedic Concept of Prameha:

Prameha is a broad term used in Ayurveda to describe a spectrum of urinary disorders that are primarily characterized



by the excessive passage of urine. The word "Prameha" is derived from the Sanskrit roots "Pra"(excessive) and "Meha" (urine). Classical *Ayurvedic* texts ^{[1][2][3]}, such as the *Charaka Samhita*, *Sushruta Samhita* and *Astanga Hridaya*, describe 20 types of *Prameha* based on the predominance of different *Doshas* (biological energies). These are further divided into three categories based on differentiation in *Varna*, *Gandha*, *Sparsa* of urine ^[4] i.e., *Kapha Prameha*, *Pitta Prameha*, and *Vata Prameha*.

Kapha Prameha: Predominantly caused by an imbalance in *Kapha Dosha*, characterized by heaviness, lethargy, and increased urination with sweet, oily, and sticky urine ^[5].

Pitta Prameha: Predominantly caused by an imbalance in *Pitta Dosha*, characterized by burning sensations, increased thirst, and yellowish, foul-smelling urine ^[6].

Vata Prameha: Predominantly caused by an imbalance in *Vata Dosha*, characterized by dry, rough, and pale urine, along with symptoms like dryness and emaciation ^[7].

- *Sthoola Pramehi* and *Krishna Pramehi* fall under these broader categories and provide specific insights into the metabolic derangements similar to Type 2 and Type 1 Diabetes Mellitus.

✚ **Sthoola Pramehi (Obese Diabetic): -**

Sthoola Pramehi is one of the subtypes of *Prameha* (urinary disorders), it is primarily associated with obesity and is considered a *Kapha*-dominant disorder.^[8] It is characterized by excessive body weight, lethargy, and the presence of turbid, sweet frequent urination. The pathophysiology of *Sthoola Pramehi* involves the imbalance of *Kapha* dosha and *Meda Dhatu* (fat tissue), leading to the obstruction of normal metabolic pathways.

Pathophysiology

❖ **Kapha Imbalance:** *Kapha Dosha*, when aggravated, leads to increased heaviness, sluggishness, and accumulation of adipose tissue. This creates a conducive environment for the development of insulin resistance.

❖ **Meda Dhatu Imbalance:** ^[9]

- *Meda Dhatu* is considered the seventh *Dhatu* in *Ayurveda* and is responsible for the maintenance of fat in the body. When *Kapha* is vitiated, it increases the *Meda Dhatu* abnormally.
- The excess of *Meda Dhatu* leads to the obstruction (*Avarana*) of channels (*Srotas*), particularly those associated with *Vata Dosha*, which further aggravates the condition.
- This results in a cascade of metabolic disturbances where the digestion and metabolism of other *Dhatu*s (tissues) are compromised, leading to a disproportionate increase in *Meda Dhatu*, contributing to obesity and furthering the pathology of *Sthoola Pramehi*.

❖ **Formation of Mala (Impurities):**

- Due to improper metabolism and excessive formation of *Meda*, the body starts producing excessive *Kleda* (moisture) and other

byproducts, which manifest as the signs and symptoms of *Prameha*.

- The increased *Kleda* and *Meda* block the normal functioning of the *Mutravaha Srotas* (urinary channels), leading to *Prameha*.^[10]

❖ **Impaired Jatharagni (Agnimandya):**

- *Jatharagni* is the main digestive fire located in the stomach and duodenum, responsible for digesting food and transforming it into *Ahara Rasa*, which is then converted into different *Dhatu*s.^[11]
- When *Jatharagni* is impaired, a condition called *Agnimandya* occurs. This leads to improper digestion of food, resulting in the formation of *Ama* (undigested metabolic waste/toxin).
- *Ama* is considered the root cause of many diseases, including *Prameha*. It disrupts normal metabolic processes and contributes to the pathological accumulation of *Meda Dhatu*.^[12]

❖ **Combined Pathophysiology:**

Impaired Jatharagni and Meda Dhatu Imbalance:

- When *Jatharagni* becomes impaired, a condition known as *Agnimandya* leads to incomplete digestion, causing the production of *Ama*, which combines with the vitiated *Kapha Dosha*, further aggravating *Kapha* and leading to excessive accumulation of *Meda Dhatu*.
- The improperly formed *Rasa Dhatu* (plasma tissue) due to weak *Jatharagni* results in the excessive formation of *Meda*, as the process of *Dhatu Poshana* (nourishment of tissues) becomes faulty, which disrupts the formation of subsequent *Dhatu*s (*Asthi*, *Majja*, *Shukra*), leading to systemic weaknesses and contributing to the chronic nature of *Sthoola Prameha*.
- The excessive *Meda* blocks the body's normal channels (*Srotas*), get accumulated in various parts of the body, especially those involved in excretion and metabolism, contributing to obesity and the pathogenesis of *Sthoola Prameha*.

Avarana (Obstruction) and Vata Imbalance:^[13]

- The blockage of channels due to excess *Meda Dhatu* leads to *Avarana*, a condition where the normal movement of *Vata Dosha* is obstructed. This causes further metabolic and systemic imbalances, worsening the condition.
- *Vata*, being obstructed, becomes vitiated and circulates improperly within the body, contributing to irregular metabolic activities, causing the typical symptoms of *Prameha*, such as increased urination, obesity, heaviness and lethargy.

❖ **Clinical Features:**

- Obesity and excessive body weight
- Frequent urination (*Prabhuta Mutrata*)
- Sweet, turbid urine (*Avila Mutrata*)
- Lethargy and heaviness
- Increased thirst (*Trishna*)
- Fatigue and low energy levels

❖ **Modern Correlation:**^[14]

The term "*Sthoola*" means "obese" or "corpulent," and "*Pramehi*" refers to a disorder that involves excessive urination, often associated with abnormal sugar levels in the urine.



Correlation of *Sthoola Pramehi* with Type 2 Diabetes

1. Obesity and Insulin Resistance:

- *Sthoola Pramehi* is closely related to obesity, which is a significant risk factor for **Type 2 Diabetes**. In Type 2 Diabetes, the body becomes resistant to insulin or does not produce enough insulin, leading to elevated blood sugar levels. Obesity contributes to insulin resistance, making it difficult for the body to utilize insulin effectively.
- *Ayurvedic* texts describe *Sthoola Pramehi* as involving excessive body fat and lethargy, which aligns with the modern understanding of the pathophysiology of Type 2 Diabetes, where obesity is a common characteristic.

2. Lifestyle and Dietary Factors:

- *Sthoola Pramehi* is often attributed to sedentary lifestyles, excessive consumption of fatty and sugary foods, and lack of physical activity, which are also primary contributors to the development of Type 2 Diabetes. Modern medicine recognizes these factors as leading to the metabolic syndrome, which increases the risk of developing Type 2 Diabetes.

3. Gradual Onset:

- Type 2 Diabetes typically develops gradually, often over several years, and is more common in adults, especially those who are overweight or obese. *Sthoola Pramehi* is described as a condition that develops slowly and is more common in individuals with excessive body weight, which mirrors the slow onset of Type 2 Diabetes.

Insulin resistance and hyperinsulinemia are characteristics of Type 2 Diabetes Mellitus, which is correlated with *Sthoola Pramehi*. Type 2 diabetes features obesity as one of its main risk factors, especially central obesity. Obese people's excess adipose tissue raises their levels of free fatty acids and inflammatory cytokines, which disrupt insulin signalling pathways. As a result, the body's cells become less sensitive to insulin, requiring greater insulin concentrations to sustain normoglycemia. The increased demand for insulin over time may cause pancreatic beta cells to become less effective, which would result in hyperglycemia and the clinical signs of Type 2. However, in Type 1 Diabetes, immunological and genetic factors—rather than Diabetes lifestyle or body weight—are responsible for the reduction of insulin production, which does not align with the characteristics of *Sthoola Pramehi*.

✚ *Krishna Pramehi* (Lean Diabetic):^[15] -

Krishna Pramehi is associated with a lean body constitution and is considered a *Vata*-dominant disorder often combined with *Pitta*. This vitiation affects the body's ability to properly metabolize nutrients, leading to the degeneration of *Ojas* (vital essence) and *Dhatu*s (tissues), particularly *Mamsa* (muscle) *Dhatu* and *Medas* (fat) *Dhatu*. It is characterized by emaciation,

weakness, and frequent urination with pale and dry urine. The pathophysiology of *Krishna Pramehi* involves the imbalance of *Vata Dosh*a and the depletion of *Dhatu*s (body tissues).

Pathophysiology

Vata Imbalance: *Vata* dosha, when aggravated, leads to dryness, roughness, and catabolic processes in the body. This results in the depletion of vital tissues and energy reserves.

Dhatu Kshaya (Tissue Depletion): The depletion of *dhatu*s, particularly *Mamsa* (muscle tissue) and *Meda* (fat tissue), impairs the body's ability to maintain energy balance and glucose homeostasis. This leads to increased gluconeogenesis and hyperglycaemia.

Causative Factors in Ayurveda:

- Excessive consumption of dry, light, and astringent foods.
- Over-exertion, stress, and lack of proper nourishment.
- Genetic predisposition (*Sahaja Prameha*).^[16]
- Aggravation of *Vata* and *Pitta doshas*.

Clinical Characteristics:^[16]

- Pale, dry urine (*Shweta, Ruksha Mutrata*)
- Increased thirst (*Trishna*)
- Frequent urination (*Prabhuta Mutrata*)
- General tiredness and restlessness
- Dry skin and mucous membranes

Modern Correlation:^[17]

Krishna Pramehi is associated with Type 1 Diabetes Mellitus, an autoimmune disease that results in the breakdown of beta cells in the pancreas. As a result, there is a complete insulin shortage, which makes exogenous insulin delivery necessary for survival. When beta cells are destroyed by the immune system, there is insufficient insulin produced, which increases lipolysis and glucagon activity without inhibition, resulting in hyperglycemia and ketosis. Similar to *Krishna Prameha*, signs of Type 1 Diabetes can include polyuria, polydipsia, polyphagia, and inexplicable weight loss.

Causative Factors in Modern Medicine:

- The autoimmune destruction of pancreatic beta cells and inherited predisposition (variants of the HLA gene) are causative factors in modern medicine.
- Environmental triggers, such as infections with viruses.

The Ayurvedic notion of *Krishna Prameha* closely aligns with the way Type 1 Diabetes is currently understood in medicine. Though the fundamental causes of *Ayurvedic Vata-Pitta* imbalance and frequent urination differ from those of Type 1 Diabetes, both conditions cause bodily tissues to deteriorate and exhibit symptoms such as autoimmune destruction of beta cells and weight loss.

Ayurvedic Management of Prameha:

Ayurvedic management of *Prameha* focuses on restoring *Doshic* balance, enhancing *Agni* (digestive fire), and promoting healthy metabolic function. The treatment approach varies based on the type of *Prameha*, with specific emphasis on



reducing *Kapha* and *Meda* in *Sthoola Pramehi* and balancing *Vata* and nourishing *Dhatus* in *Krishna Pramehi*.

- ***Sthoola Pramehi* Management:** -^[18]

Dietary Adjustments

Kapha-Pacifying Diet: Emphasises light, dry, and warm meals. Avert cold, greasy, and heavy foods.

Minimal Glycaemic Index Foods:^[19]

Low GI foods absorb and digest more slowly, raising blood sugar levels slowly as opposed to suddenly. To keep blood glucose levels steady, eat whole grains (quinoa, brown rice), legumes (lentils), and non-starchy vegetables. These foods frequently have high levels of fibre, which encourages fullness and helps with weight loss. Low GI foods are in accordance with the method of reducing *Medas* (fat) and *Kapha* since they lower the heaviness and lethargic feeling that come with *Sthoola Pramehi*.

Herbal Teas: Use of herbal teas with *Trikatu* (a blend of black pepper, long pepper, and ginger) to enhance digestion and metabolism.

Lifestyle Modifications:

Regular Physical Activity: Incorporate regular exercise to enhance insulin sensitivity and promote weight loss.

Yoga and Pranayama: Practices such as *Surya Namaskar* (Sun Salutation) and *Kapalabhati* (breath of fire) to balance *Kapha* and improve metabolic function.

Herbal Remedies:^[20]

Triphala: A combination of three fruits (*Amalaki*, *Bibhitaki*, *Haritaki*) that aids digestion and detoxification.

Guggulu: An herbal resin known for its lipid-lowering and anti-inflammatory properties.

Vijaysar: *Pterocarpus marsupium*, known for its hypoglycaemic effects.

Panchakarma (Detoxification Therapies):

***Vamana* (Therapeutic Emesis):** Indicated for *Kapha* disorders to eliminate excess mucus and toxins.

***Lekhana Basti* (Scraping Enema):** To remove excess *Meda* (fat tissue) and improve metabolism.

- ***Krishna Pramehi* Management:** -^[21]

Dietary Modifications

Vata-Pacifying Diet: Emphasize foods that are warm, moist, and nourishing. Include ghee, milk, and well-cooked grains. These foods support the regeneration of depleted ***Dhatus*** (tissues) and improve overall body strength.

Nutrient-Dense Foods (act as *Brimhana*): Include nuts, seeds, and healthy fats to promote tissue building and energy and balancing *Vata dosha*. Legumes, dairy, and lean meats aid in rebuilding muscle tissue and supporting strength. Whole grains like brown rice and quinoa provide sustained energy and are easier on blood sugar levels. Adequate nutrition strengthens the immune system, which is often compromised in Type 1 Diabetes.

Lifestyle Modifications:^[22]

Moderate Exercise: A To sustain vitality without inflaming *Vata*, try walking and light yoga.

Adequate Rest: Ensure sufficient rest and stay clear of too much physical or mental stress.

Herbal Remedies

Ashwagandha: *Withania somnifera* is a plant with rejuvenating and adaptogenic qualities.

Shatavari: *Asparagus racemosus* a plant that fortifies and nourishes bodily tissues.

Amalaki: *Emblica officinalis* high in antioxidants and vitamin C to support healthy immunity and vigour.

Panchakarma (Detoxification Therapies):

***Basti* (Medicated Enema):** To balance *Vata* and nourish the *Dhatus*.

Rasayana Therapy: Rejuvenated treatments to enhance *Ojas* and overall vitality.

Integrative Approach to Diabetes Management^[23]

The integration of *Ayurvedic* principles with modern medical practices can offer a holistic approach to diabetes management. Combining dietary and lifestyle modifications, herbal remedies, and conventional treatments can address both the symptoms and root causes of diabetes, promoting overall health and well-being.

1. Prevention:

Lifestyle Interventions: Encourage a nutritious diet, regular exercise, and stress-reduction techniques to postpone the onset of diabetes.

Early Detection: Regular blood glucose tests and metabolic marker monitoring are essential for the diagnosis and treatment of prediabetes.

2. Adapted Care:

***Doshic* Evaluation:** Therapy plans tailored to the individual imbalances and *Doshic* makeup of the patient.

Herbal Supplements: Use of evidence-based herbal supplements in conjunction with prescribed medications to enhance therapeutic outcomes.

3. Patient Education:

Empowerment: Educate patients about the importance of lifestyle choices, dietary habits, and self-care practices in managing diabetes.

Holistic Care: Promote a holistic approach to health that encompasses physical, mental, and emotional well-being.

CONCLUSION

Sthoola and *Krishna Pramehi's* *Ayurvedic* understanding of diabetes mellitus offers important insights into its holistic management. *Ayurveda* provides a complementary approach to current diabetes management by addressing the underlying *Doshic* imbalances and encouraging good metabolic function. By combining the principles of *Ayurveda* with traditional medicine, diabetes can be better prevented, treated, and



managed overall, which will ultimately improve patient outcomes and quality of life. Diabetes care could become a more complete and efficient health paradigm through the synthesis of traditional knowledge and modern science.

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