



# A REVIEW STUDY ON THE COMPARISON OF *UDAKAMEHA* IN AYURVEDA AND MODERN MEDICAL CONCEPT

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## I.ABSTRACT:

*Udakmeha* is one of the twenty types of *Prameha* described in Ayurveda and is considered a *Kapha*-dominant disorder characterized by the excessive passage of clear and watery urine. Lifestyle changes, sedentary habits, and improper dietary patterns have increased the prevalence of metabolic and urinary disorders in modern times. Certain clinical features of *Udakmeha* show similarities with modern medical conditions such as Diabetes Insipidus and early-stage Diabetes Mellitus, which are also associated with excessive urination. The aim is to analyze the concept of *Udakmeha* described in Ayurveda and compare it with related conditions in modern medical science. This study is a conceptual and comparative review based on classical Ayurvedic literature and modern medical concepts. Information regarding *Udakmeha* was collected from traditional Ayurvedic principles describing its causes, symptoms, pathophysiology, and management. These features were compared with modern medical conditions such as Diabetes Insipidus and Diabetes Mellitus to understand their similarities and differences. *Udakmeha* is characterized by frequent urination of clear, watery urine, increased thirst, and weakness due to *Kapha* predominance, impaired digestion (*Agnimandya*), and disturbance of *Mutravaha Srotas* (*Strotodushti*). Modern medicine explains similar symptoms through hormonal imbalance, such as deficiency of Antidiuretic Hormone in Diabetes Insipidus, or through metabolic disturbances causing high blood glucose levels (Hyperglycemia) in Diabetes Mellitus, leading to osmotic diuresis. While the underlying mechanisms differ, both systems recognize polyuria and polydipsia as key features. The Ayurvedic concept of *Udakmeha* shows clinical similarities with modern conditions characterized by excessive urination, particularly Diabetes Insipidus and early-stage Diabetes Mellitus. Comparative understanding of these conditions highlights the importance of dietary regulation, lifestyle modification, and early management. Integrating

Ayurvedic principles with modern medical knowledge may provide a broader perspective for understanding and managing such metabolic and urinary disorders.

**Keywords:**

*Udakmeha, Prameha*, Diabetes Insipidus, Diabetes Mellitus, Polyuria.

## II. INTRODUCTION

Ayurveda is the science of life that focuses on the prevention and treatment of diseases and promotes a healthy lifestyle. In recent years, changes in lifestyle, unhealthy diet, lack of physical activity, and stress have increased the prevalence of lifestyle disorders such as hypertension, cardiovascular diseases, and Diabetes Mellitus. Among these, Type 2 Diabetes is commonly associated with sedentary habits and obesity.

According to global estimates in 2019, about 77 million people in India were affected by diabetes, and this number is expected to increase to more than 134 million by the year 2045. A significant concern is that nearly 57% of these individuals remain undiagnosed, which increases the risk of complications.<sup>1</sup>

Diabetes insipidus (DI) is a disorder of water balance characterized by polyuria and polydipsia. It can occur at any age, and the reported prevalence is approximately 1: 25,000. It can occur due to genetic (10%) and acquired (90%) causes that affect the secretion or action of arginine vasopressin (AVP) or antidiuretic hormone (ADH).<sup>2</sup>

In Ayurveda, *Prameha* is described as a group of metabolic and urinary disorders characterized mainly by abnormalities in urine. Classical texts mention 20 types of *Prameha*, which are classified based on the predominance of *Doshas*—four due to *Vata*, six due to *Pitta*, and ten due to *Kapha*.

*Udakameha* is one of the *Kapha*-dominant types of *Prameha*. It is characterized by the frequent passage of large quantities of clear, watery urine.<sup>3</sup> The present study aims to understand the concept of *Udakameha* in Ayurvedic literature and explore its possible correlation with modern medical concepts.

## III. AIM

To study the concept of *Udakameha* in Ayurveda and its possible correlation with modern medical science.

## IV. MATERIALS AND METHODS

The present study is a literary review based on classical Ayurvedic texts with modern medical literature. The following Ayurvedic Samhitas were consulted for the fundamental theoretical study:

1. Charaka Samhita<sup>4,5,6,7</sup>
2. Sushruta Samhita<sup>8,9</sup>
3. Ashtanga Hridaya<sup>10,11</sup>
4. Textbook of Medicine<sup>12</sup>

In addition, standard textbooks of modern medicine, research articles from online databases, journals, Ayurvedic commentaries, and relevant books were reviewed to obtain updated information. The collected data were critically analyzed and interpreted to understand the concept of *Udakameha* and its correlation with modern medical perspectives.

## V. OBSERVATIONS AND RESULTS:

Comparison of *Udakmeha* in Ayurveda with Modern Medical Concepts

Feature	Ayurveda ( <i>Udakmeha</i> )	Modern Medicine (Diabetes Insipidus / Diabetes Mellitus)
Definition	Excessive passage of clear, watery urine due to <i>Kapha</i> imbalance.	Diabetes Insipidus (DI): Deficiency of Antidiuretic Hormone (ADH) leading to excessive urination. disorder is characterised by the persistent excretion of excessive quantities of dilute urine and by thirst. <sup>12</sup> Diabetes Mellitus (DM): High blood sugar levels causing increased urination (osmotic diuresis). Refers to a group of common metabolic disorders that share the phenotype of hyperglycemia. <sup>14</sup>
Causes	- <i>Kapha</i> dominance - Weak digestion & metabolism ( <i>Agnimandya</i> ) - Excess intake of sweet, cold, heavy foods - Sedentary lifestyle	- DI: Deficiency of ADH (Vasopressin) or kidney's inability to respond to it. - DM: Insulin resistance or deficiency leading to high blood sugar.
Symptoms	- Frequent urination (pale, watery urine) - Increased thirst (polydipsia) - Weakness, lethargy	- DI: Polyuria (excessive urination), polydipsia (thirst), dehydration. <sup>13</sup> - DM: Polyuria, polydipsia, polyphagia (increased hunger), weight loss (Type 1), obesity (Type 2).
Pathophysiology	- Excess <i>Kapha dosha</i> weakens <i>Medo Dhatu</i> (fat tissue) and disturbs <i>Mutravaha Srotas</i> - This leads to excessive urine production.	- DI: Lack of ADH leads to inability to retain water. - DM: High blood sugar leads to osmotic diuresis (kidneys expel excess glucose through urine).
Treatment	- Balance <i>Kapha</i> using herbal	-DI: ADH replacement (Desmopressin),

Approach	remedies. -Improve digestion ( <i>Agnideepana</i> ). - Detoxification ( <i>Panchakarma</i> , - <i>Virechana</i> , <i>Basti</i> ). - Dietary modifications (avoid excess sugar, dairy, and cold foods).	adequate hydration. - DM: Blood sugar control through insulin (Type 1), oral drugs (Type 2), and lifestyle modifications. <sup>15</sup>
Herbal Remedies	- <i>Shilajit</i> (Asphaltum punjabinum), <i>Chandraprabha</i> <i>Vati</i> <sup>18</sup> , <i>Gokshura</i> (Tribulus terrestris Linn.) <sup>17</sup> , <i>Punarnava</i> ( <i>Boerhavia diffusa</i> Linn.), <i>Guduchi</i> ( <i>Tinospora cordifolia</i> ) <sup>19</sup> , <i>Triphala</i> <sup>20</sup> - <i>Parijatak Kashaya</i> <sup>9</sup> .	- Metformin, Insulin, SGLT-2 inhibitors for DM. - Desmopressin for DI. <sup>16</sup>

(\*SGLT- 2: Sodium-glucose transporter 2 (SGLT2) inhibitors, ADH: Antidiuretic hormone)

## VI. DISCUSSION

*Udakmeha* is one of the *Kapha*-dominant types of *Prameha* described in classical Ayurvedic texts. It is characterized by the frequent passage of large quantities of clear, watery urine. This condition mainly occurs due to the aggravation of *Kapha Dosha* along with impairment of digestion and metabolism (*Agnimandya*). The vitiated *Kapha* affects the *Mutravaha Srotas* (urinary channels), resulting in excessive urine formation.

When the clinical features of *Udakmeha* are analyzed from a modern medical perspective, similarities can be observed with conditions such as Diabetes Insipidus and the early stage of Diabetes Mellitus. Both of these conditions are characterized by polyuria (excessive urination) and increased thirst.

In Diabetes Insipidus, there is a deficiency of antidiuretic hormone (ADH) or the kidneys fail to respond properly to it. As a result, the body is unable to conserve water, leading to the excretion of large amounts of dilute urine. These symptoms closely resemble the Ayurvedic description of *Udakmeha* where urine appears clear, watery, and excessive in quantity.

Similarly, in the early stage of Diabetes Mellitus, increased blood glucose levels cause osmotic diuresis, resulting in frequent urination and increased thirst. Although the underlying causes differ, the clinical presentation shows similarities with the symptoms described in *Udakmeha*.

Ayurveda explains this condition through *Kapha* imbalance, impaired digestion, and improper dietary and lifestyle habits, such as excessive consumption of sweet and heavy foods and lack of physical activity. Management in Ayurveda focuses on restoring metabolic balance through dietary regulation, herbal

medicines, lifestyle modification, and Panchakarma therapies. Ayurvedic drugs such as *Shilajit*, *Gokshura*, *Punarnava*, *Guduchi*, and *Triphala* are commonly used to improve metabolism and support urinary system health.

Thus, the Ayurvedic concept of *Udakmeha* reflects an early understanding of disorders associated with excessive urination and metabolic imbalance.

The present review study indicates that *Udakmeha* described in Ayurveda can be correlated with modern medical conditions characterized by excessive urination, particularly Diabetes Insipidus and the early stages of Diabetes Mellitus. In Ayurveda, *Udakmeha* is mainly attributed to *Kapha Dosha* predominance, impaired digestion (*Agnimandya*), and disturbance of *Mutravaha Srotas*.

Modern medicine explains these symptoms through hormonal imbalance in Diabetes Insipidus or disturbances in glucose metabolism in Diabetes Mellitus. Although the theoretical explanations differ, both systems recognize the importance of early diagnosis, dietary control, and lifestyle modification in the management of the condition.

Therefore, understanding *Udakmeha* in relation to modern medical concepts helps bridge traditional Ayurvedic knowledge with contemporary medical science and may contribute to better preventive and therapeutic approaches

### **Conclusion:**

*Udakmeha* is described in Ayurveda as one of the Kapha-dominant types of Prameha, represents a disorder primarily associated with excessive passage of clear and watery urine. Classical Ayurvedic texts explain that the disease develops due to Kapha Dosha aggravation, impaired digestive and metabolic activity (*Agnimandya*), and vitiation of *Mutravaha Srotas*. Improper dietary habits such as excessive intake of sweet (*madhur*), heavy (*Guru*), oily (*Snigdha*), and cold foods, along with sedentary lifestyle and lack of physical activity, play an important role in the pathogenesis of the disease. These factors ultimately disturb normal metabolism and lead to abnormal urine formation and excretion.

The comparative study of *Udakmeha* with modern medical concepts reveals significant clinical similarities with conditions such as Diabetes Insipidus and the early stages of Diabetes Mellitus. In both systems of medicine, polyuria (excessive urination) and polydipsia (increased thirst) are considered major clinical manifestations. Diabetes Insipidus occurs due to deficiency of antidiuretic hormone (ADH) or reduced renal response to it, resulting in the excretion of large quantities of dilute urine. Similarly, in Diabetes Mellitus, elevated blood glucose levels produce osmotic diuresis, causing frequent urination and increased thirst. These manifestations closely resemble the Ayurvedic description of *Udakmeha*.

Although the etiological and pathological explanations differ between Ayurveda and modern medicine, both systems acknowledge the role of metabolic imbalance and lifestyle factors in disease development. Ayurveda explains the condition through Dosha imbalance, especially Kapha predominance and impaired Agni, whereas modern medicine attributes it to endocrine and metabolic disturbances. Despite these differences, the principles of management in both systems show common importance toward early diagnosis, dietary regulation, proper hydration, physical activity, and long-term lifestyle modification.

Ayurveda offers a holistic approach in the management of Udakmeha through Nidana Parivarjana (avoidance of causative factors), dietary correction, herbal formulations, and Panchakarma therapies such as Virechana and Basti. Drugs like Shilajit, Guduchi, Gokshura, Punarnava, and Triphala are traditionally used to improve metabolism, support urinary function, and restore Dosha balance. Modern medicine, on the other hand, focuses on correcting hormonal deficiency in Diabetes Insipidus and controlling blood glucose levels in Diabetes Mellitus through pharmacological interventions and lifestyle management.

Therefore, the present review highlights that Udakmeha can be conceptually correlated with certain modern metabolic and urinary disorders characterized by excessive urination. Understanding these similarities helps bridge the gap between traditional Ayurvedic knowledge and contemporary medical science. An integrative approach combining Ayurvedic preventive principles with modern diagnostic and therapeutic methods may provide a broader perspective for effective management, improved quality of life, and prevention of complications associated with metabolic and urinary disorders.

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