

## AYURVEDIC MANAGEMENT OF MADHUMEHA W.S R DIABETES

## MILLITUS: - A REVIEW ARTICLE

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## OVERVIEW

Madhumeh, also known as diabetes, is a condition that causes abnormally high blood sugar levels. It's a serious and widespread health issue that can be managed with proper care. The science of life, or Ayurveda, teaches us the principles and guidelines for leading long, healthy lives. Ayurveda has a great role in maintaining a healthy life, followed by Dinacharya, Ritucharya, Sadvritta, and Achara Rasayana, as well as recommendations for a balanced diet. Few individuals can follow them properly in the current scenario. As a result, there has been a significant rise in lifestyle diseases, among them Prameha. Prameha has been extensively described in various Ayurvedic classics, viz., Charaka Samhita, Sushruta Samhita, Ashtanga Sngraha, and Madhav Nidan. Prameha has 20 types in which vataj type of prameha is called madhumeha. In modern science, we know Madhumeh as diabetes mellitus. Diabetes mellitus is a group of metabolic disorders marked by a high blood glucose level (hyperglycemia). It is a leading cause of

morbidity and mortality all over the world. The global prevalence of Diabetes among adults over 18 years of age has risen from 4.7% in 1980 to 8.5% in 2014. In India cases of Diabetes Mellitus has shown surprisingly higher susceptibility which is a matter of great concern. The prevalence of Diabetes in India is currently reported to be around 13 - 15% and by the year 2025 it is estimated that approximately 55 million Indians will be diabetic.

**KEYWORDS:** Charaka Samhita, Sushruta Samhita, Ashtanga Sngraha, and Madhav Nidan.

## INTRODUCTION

According To Charak Prameha Is One Of The “Ashtho Mahagadas” (Eight Major Disorders).<sup>[1]</sup> The Classical Symptom Of Prameha, As Described By Our Acharyas, Is “Prameha Is A Group Of Urinary Disorders That Is Particularly Marked By Frequent And Abnormal Urination.” Prameha Is Considered One Of The Mutragata Rogas, And All Acharya Said Prameha Has Twenty Types. According To The Classification Of Prameha According To Tridosha Siddhanta, Kapha Prameha Is A Ten, Pita Prameha Is Six, And Vata Prameha Is Four. Madhumeha Is A Sub Type Of Vataj Prameha Or The Terminal Stage Of Prameha And Aacharya Sushrut Described Madhumeha In Two Types. Sahaja And Apathyanimittaj. Sahaja Refers To Natural Which Are Originated Due To Precipitating Factors From The Inherited Or Congenital Factors, And Apathyanimittaj Refers To More Food, Unctuous, And Always Desires To Occupy Bed, Sitting Posture And Sleep.<sup>[2]</sup> Madhumeha Is Correlated With Diabetes Mellitus.<sup>[3]</sup> Diabetes Mellitus Is A Group Of Metabolic Disorders Marked By High Blood Glucose Levels (Hyperglycaemia) Resulting From Defects In Insulin Production, Action, Or Both. Depending On The Etiology Of Diabetes, Factors Contributing To Hyperglycaemia Include Reduced Insulin Secretion, Decreased Glucose Utilization, And Increased Glucose Production.<sup>[4]</sup> Diabetes Is A Metabolic Disorder And It Cannot Be Merely Treated By Controlling Sugar Levels. The Treatment Recommended In Ayurveda Is Aimed At Rejuvenating The Body To Not Only Balance Sugar Levels, But Also Ensuring That No Further Complication Is Caused. According To The International Diabetes Federation (Idf), 8.8% Of The Adult Population Has Diabetes, And Current Global Statistics Show That 463 Million And 374 Million Individuals Have Diabetes Mellitus.<sup>[5]</sup>

The Treatment Applied By The Ayurvedic Medicine Aims Not Only To Balance Blood Sugar Levels, But Also To Rejuvenate The Body And Promote A Positive Change In The Patient’s Life. Ayurvedic Herbal Medicines And Therapies Are Focused On The Main Cause Of The Disease, As They Aim To Strengthen The Immune System And Improve Digestion, And Help The Patient To Have A Healthy Lifestyle.

### Nirukti And Paribhasha (Etymology And Definition)

*Madhumeha:* -The Word “Madhumeha” Is Combination Of Two Terms ‘Madhu’ Mean Like Honey, And ‘Meha’ Mean Excessive Flow Respectively. Madhumeha Is A Disease Entity, Characterized By The Sweetness Of The Body Tissues Along With The Passage Of The Turbid And Sweet Urine In Excessive Amount Which Is Due To Various Physical And

Chemical Changes Of Body Tissue. So, The Definition Is The Clinically Entity In Which Patient Voids The Urine Having Concordance With Madhu I.E. Of Kashaya And Madhura Teste, Ruksha Texture And Honey Like Colour. Sometimes Term 'Madhumeha' Is Used To Indicate All Prameha, So It Is Also Necessary To Know About Word Prameha.

**Prameha:** - According To Sanskrit Literature, The Word "Prameha" Is Combination Of Two Terms Pra And Meha (Mih) Wherein 'Pra' Mean Excessive Frequency, And 'Meha (Mih)' Mean Watering, Wetting Etc. So, Prameha Mean Disease In Which There Is Excessive Micturition.

**Diabetes:** - The Term Diabetes Has Been Derived From Greek Term Diabainein Which Means To Cross Through A Siphon, Applied To Mean Elimination Of Large Quantity Of Urine. Thus, We Can Come To A Conclusion That Prameha And Diabetes Both The Terms Have Same Meaning.<sup>[6]</sup>

Moreover, To Bring The Attention To More Interesting Fact That The Terms Madhumeha And Diabetes Mellitus Are Analogues, Wherein Madhu And Mellitus Mean Honey. Thus, Both The Terms 'Madhumeha' And 'Diabetes Mellitus' Mean Passing Of Large Quantity Of Sweet Urine.

### **Bheda Of Madhumeha (Type Of Diabetes)**

Three Important Ayurvedic Ancient Treatises Elaboratively Classified The Disease Prameha In To 20 Types On The Basis Of Dosha Dominance. Madhumeha Is Described As A Type Of Vataj Prameha Or The Terminal Stage Of Prameha And Aacharya Sushrut Described Madhumeha In Two Types.

1. Sahaja
2. Apathyanimittaj<sup>[2]</sup>

Madhumeha Have Been Subdivided Into Two Etiological Types By Vāgbhata.

1. Dhatukshayajanya Madhumeha
2. Avaranjanya Madhumeha

Diabetes (Madhumeha) Have Been Divided Into Two Etiological Types By Modern Medical Science.

1. Diabetes Type 1 (Diabetes Insipidus)
2. Diabetes Type 2 (Diabetes Mellitus)

The Diabetes Mellitus Also Considers This Classification Terming Them As Obese Diabetic And Lean Diabetic.<sup>[4]</sup>

### **Hétu Of Madhumeha (Etiology)**

#### ***Samanya Hétu***

Ayurvedic Classics Elaborately Describes About The General Etiological Factors Of Prameha And According To Acharya Charaka, This Disease Is Tridoshaj In Origin<sup>7</sup>. Even Charaka In Chikitsasthana, Talks Only About The Common Etiological Factors.

- Asyasukham: - Interest In Sedentary Habits.
- Swapanasukham: - Pleasure Of Sleep.
- Dadhini: - Over Indulgence Of Various Preparations Of Curds.
- Gramya, Audaka, Anoop Rasa: - Soups Of Meat Of Domesticated And Aquatic Animals Belonging To Marshy Land.
- Payansi: - Various Milk Preparations.
- Navannapanam: - Freshly Harvested Food Articles, Freshly Prepared Drinks.
- Guda Vaikritam: - Various Preparations Of Jaggary
- Santarapanottha Nidan: - According To Charaka (C.Su.23/3-5),

The Common Etiological Factors All Those Nidanas, Which Cause Kapha Vriddhi Are The Samanaya Nidanas Or Hetus For Prameha (Kapha Krutcha Sarvam). This Prompts One To Accept That Kaphavridhikara Dait And Lifestyel Are The Prime Factors In Causation Of The Disease Process And All Kaphakark Bhavas Are Pramehakark Bhavas. Though These Are The Nidanas Of Prameha, They Are To Be Considered As The Nidanas Of Madhumeha Also (As It Is A Type Of Prameha Only)<sup>8</sup>. Samanya Nidans Described By Sushruta Are The Same As That Of Described By Charaka. He Has Described Two Additional Nidanas As (Su. Nid. 6/3).

- Medya Sevinam - Overindulgence Of Fatty Substances Which Are Responsible For Fat Genesis In Body.
- Dravannasevinam - Excessive Use Of Food In The Form Of Liquid Preparations. Madhavakara Has Explained The Same Causes As That Of Charaka.
- Adibala Pravrutta

Madhumeha Has Been Stated As Sahaja As Well As Kulaja Vikara. The Genetic Predisposition And Familial Aggregation Have Been Considered As The Prime Etiological Factor.

Kapha Medokarka Nidanas Are Responsible For The Abnormal Increase Of Sneha And Kleda In The Body Forms The Etiological Facet Of Madhumeha. Similarly, The Factors Which Abnormally Increase The Serum Free Fatty Acids With Increase Of Vldl And Triglyceride, Leading To Malfunctioning Of Lipid Metabolism Forms The Etiological Facet Of Diabetes Mellitus.

### **Premonitory Symptoms (Poorvarupa Of Madhumeha)<sup>[9]</sup>**

Acharyas Have Stated General Of Poorvarupa Prameha As Madhumeha Is Classified Under The Vatika Type Of Prameha, Poorvarupa Of Prameha Can Be Taken As Poorvarupa Of Madhumeha. In Ayurveda We Can Find The Described Of Early Symptoms Of Disease. They Are Accumulation Of Dirt On The Teeth (Mouth, Eyes, Nose And, Ears, A Feeling Of Burning Sensation In The Skin All The Over The Body, Thirst And A Sweet Taste In The Mouth Etc., And Moothra Madhuryam (Sweetness Of Urine).

### **Symptoms Of Madhumeha<sup>[10]</sup>**

The Pratyatmaka Lakshanas (Cardinal Features) Become Vyakta (Manifest) In The Mootravaha Srotas (Urinary System) With Abnormal Changes In Rasa (Taste), Gandha (Smell), Varna (Colour) And Sparsha (Touch) Of Mootra (Urine).

Features Of Prameha Patients Are Described Uniquely In Sushruta Samhita. “A Walking Person Preferring To Sit, Sitting One Opting To Lie Down, Lying One Desires To Sleep, And Sleeping One Dislikes Awakening Are The Signs Of Prameha.

A Comparison Of Features Has Been Made Here, The Aim Of Which Is To Establish A Correlation With Modern Signs & Symptoms. It Clearly Shows That The Symptoms Are Similar.

### **Clinical Features Of Diabetes Mellitus<sup>[11]</sup>**

Prameha Symptoms, Such As Increased Frequency Of Urination (Prameha), Excessive Thirst (Trishna), And Emaciation (Karshya), Are Caused By A Combination Of Poor Insulin Signalling, Insulin Resistance, And Channel Obstruction. Madhumeha, Which Is Marked By Persistent Hyperglycemia And Related Problems That Impact Several Organs And Systems, Eventually Manifests As A Result Of The Disease's Unchecked Progression.

**Upashaya-Anupashaya (Prevention Of Madhumeha)**

In Case Of Madhumeha, No One Has Explained Upashaya-Anupashaya Clearly, In Ancient Times. One Has To Decide Upashaya-Anupashaya Of Madhumeha With The Help Of Yukti-Pramana By Going Through All Available Literature Of Madhumeha In Ayurveda.

Principle Of Ayurveda Is Prevention Is Better Than Cure. So, Preventive Aspect Is Very Important In Case Of Madhumeha. Ayurveda Has Much To Offer For Prevention In Terms Of Daily And Seasonal Regimens, Healthy Foods, Yoga Exercise, Panchakarma, And Medicines. The Daily Routine In Ayurveda Involves The Following.

- Vyayam Up To Half Strength.
- Proper Dietary Habbits As Per Ashtavidha Ahara Visheshayatane And Dwadash Ashana Vichar. High Rise People Are Identified And They Are Advised For Behavioural And Lifestyle Changes After Recognising Poorvarupa Of Madhumeha.
- Nidan Parivartan
- Sadvritta
- Non Suppression Of Natural Urges
- Modifying Lifestyle As Per Guidelines Of Ayurvedic Classical Texts
- Ahara With Laghu, Ushna Gunas, Titkta, Kashaya Rasa
- Vaat Kapha Shamak And Balya Ahara And Vichara
- Chankramana
- Apatarpanjanya Kriya Etc.

**Samprapti (Pathogenesis)**

On The Basis Of Causative Theory, Madhumeha Have Been Subdivided Into Two Etiological Types By Vagbhata. The Specific Factors Which Lead To Excessive Tissue Depletion Causes Dhatukshayajanya Madhumeha (Krusha). The Specific Factors Which Increase Kapha, Pitta, Meda And Mamsa Which In Turn Leads To Obstruction Of Vata Causes Avaranjanya Madhumeha (Sthoola)<sup>12</sup>. The Diabetes Mellitus Also Considers This Classification Terming Them As Obese Diabetic And Lean Diabetic<sup>13</sup>. Thus, Samprapti Of Madhumeha Can Be Broadly Classified Into Two Types Avaranjanya And Another Is Kshayajanya. Avaranjanya Is By Pitta And Kapha And Kshayajanya Is Due To Vata<sup>14</sup>. Chala Guna Of Vata Declines By Avarana Of Pitta And Kapha And Hindering Normal Nerve Impulse Conduction And Worsening Of Myelin Sheath (The Fatty White Matter That Surrounds Nerve Cells' Axons To Form The Electrically Insulating Layer Is Known As The Myelin Sheath Of Neurons.

Proteins Make Up 15 - 30% Of Myelin, Lipids Make Up 70 - 85% Of The Dry Mass, And Water Makes Up About 40%).

The Person Indulging In Food Substances Having Guru, Snigdha Qualities & Excessive Indulgence Of Amla & Lavana Rasa Substances & Navanna-Pana, Excessive Sleep, Sitting In A Same Place For Longer Duration, Avoiding Exercises & Thinking Process & Also Not Performing The Shodhana Process In A Proper Time. The Specific Factors Which Increase Kapha, Pitta, Meda And Mamsa Which In Turn Leads To Obstruction Of Vata Causes Avaranjanya Madhumeha.

On Later Stage Of Disease Due To Vata - Prakopa Occurs Which Causes Dhatukshaya And Eventually Leads To Ojakshaya.<sup>[15]</sup>

### **Samprapti (Pathogenesis) Ghataka<sup>[16]</sup>**

On The Basis Of Various References, The Samprapti Ghataka Of Madhumeha Are Described As Follows.

#### *Dosha*

##### *Kapha*

- ✓ Bahu And Abaddha – In Avaranjanya Madhumeha
- ✓ Kshina – In Kshayajanya Madhumeha

##### *Pitta*

- ✓ Vriddha – In Avaranjanya Madhumeha
- ✓ Kshina – In Kshayajanya Madhumeha

##### *Vata*

- ✓ Avrita – In Avaranjanya Madhumeha
- ✓ Vriddha – In Kshayajanya Madhumeha

*Dushya:* - Rasa, Rakta, Mamsa, Meda, Majja, Vasa, Shukra, Oja, Lasika, Kled (Ch.Ni.4/4) And Sweda (A.H.Ni.10/4)<sup>[14]</sup>

*Srotasa:* - Mutravaha, Udakavaha, Medovaha

*Srotodushti:* -Sanga, Atipravritti

*Agni:* -Vaishama Of All Agni (Or Dhatvagnimanya)

*Adhisthana:* - Basti, Aginashya

*Udhbhavasthana:* -Amashaya



*Ama*: - Medogata Ama Produced Due To Jatharagnimandya And Dhatvagnimandya.

*Bhedavastha*: - Occurrence Of Upadravas Such As Putimamsa And Prameha Pidika Etc.

*Nature*: - Chirkari (Ch.Su.26/40)

### **Nidan (Diagnosis)**

A Mix Of Clinical Assessment, Laboratory Studies, And Evaluations Of Prakriti (Constitution) And Vikriti (Imbalance) Are Used In The Diagnosis Of Madhumeha. Assessing Symptoms Such Increased Thirst, Polyuria, Weariness, And Unintentional Weight Loss Is Part Of The Clinical Evaluation Process. Diagnostic And Prognostic Laboratory Testing Include Glycated Haemoglobin (Hb1c), Renal Function Tests, Oral Glucose Tolerance Test (Oggt), Fasting Blood Glucose, Lipid Profile, And Renal Function Tests. Further Insights Into Dosha Imbalance And Tissue Pathology Can Be Gained Via Ayurvedic Diagnostic Techniques Including Nadi Pariksha (Pulse Examination), Mutra Pariksha (Urine Examination), And Jihva Pariksha (Tongue Examination).

### **Chikitsa (Treatment)**

Ayurvedic Medicine Employs A Comprehensive Approach That Includes Dietary Adjustments, Lifestyle Counselling, Herbal Remedies, Panchakarma Treatments, And Rasayana (Rejuvenation) Treatments.

The Following Categories Apply To Diabetic Patient Treatment Principles: Diabetes Comes In Two Varieties.

1. Sthaulya, The Obese
2. The Athenians, Krasha
  1. In Sthaulya (Obese). The Primary Focus Of The Treatment Should Be On Making The Most Use Of The Extra Fat, Hence The Patient Should Receive: (I) Shodhana (Purification Process): Cleaning Therapies Include Vamana (Emesis Induction), Virechana (Purgation Induction), And Basti (Medicine Administered Anally). (Ii) Apatarpana - Reduction In Body Weight By Way Of Diet Control Or Drugs, Vyayama (Exercise) Etc., Fasting, Diet Control.
  2. In Krasha (Lean Patient) Asthenic Type: The Patient Should Never Get Excessive Langhana Or Apatarpana, I.E., He Should Not Be Starved; Instead, The Focus Of Treatment Should Be On Boosting Stamina And Vigour Through Tonics (Bramhana), Food, Medications, Etc. The Goals Of Managing Madhumeha Are To Correct The



Underlying Dosha Imbalance, Enhance Insulin Sensitivity, Control Blood Sugar, And Avoid Or Lessen Consequences.

### **Sadhya-Asadhya (Prognosis)**

Three Categories Of Prognoses Are Recognised By Ayurveda.

1. Patients Who Are Shtola (Obese), Early-Onset Diagnosed, And Whose Condition Arose From Apathyaja Are Considered Sadhya (Curable).
2. Yapya (Palliable): Nonetheless, Some Forms Of Kaphaja Prameha And Pittaja Prameha Are Helpful In The Healing Process.
3. Vataja, Asadhya (Incurable) Describes A Krisha (Lean) Patient With Sahaja Variety Who Has An Incurable Form Of Prameha And Inherited Diabetes.

### **Pathya-Apathy**

#### *Dietary Recommendations*

- ✓ Whole Grains: - Yava, Godhum(Wheat), Shyamaka, Kodrava, Bajara,
- ✓ Pulses: - Chanaka (Gram), Adaki, Mudga (Green Gram)
- ✓ Vegetable: - Tikta Shakas- Nimba, Sarshapa(Mustard), Methika, Karbellak, Kulaka(Patola), Shobhanjana, Karkotaka, Udumbara, Rasona(Garlic)
- ✓ Fruits: - Jambu (Black Berry), Talaphala, Kharjura, Tinduka
- ✓ Hydration: - Maintain Adequate Hydration With Warm Water, Herbal Teas, And Soups.

#### *Herbal Remedies*

- ✓ Gymnema Sylvestre (Gurmar): - Known For Its Ability To Lower Blood Sugar Levels By Reducing Sugar Absorption.
- ✓ Bitter Gourd (Momordica Charantia): - Exhibits Hypoglycaemic Properties And Helps In Regulating Blood Sugar.
- ✓ Fenugreek: - Helps In Insulin Sensitivity And Reduces Blood Glucose Levels.
- ✓ Turmeric (Curcuma Longa): - Contains Curcumin, Which Has Anti-Inflammatory And Antioxidant Properties That Can Help Manage Diabetes.
- ✓ Amla (Indian Gooseberry): - Known For Its Ability To Improve Metabolism And Regulate Blood Sugar.
- ✓ Ashwagandha: - Helps Manage Stress And Supports Overall Health.

### *Lifestyle Modifications*

- ✓ Regular Exercise: - Incorporating Yoga And Physical Activities Like Walking, Swimming, Or Cycling Can Help In Weight Management And Blood Sugar Control.
- ✓ Stress Management: - Practices Such As Meditation, Deep Breathing, And Mindfulness Are Vital For Managing Stress, Which Can Impact Blood Sugar Levels.
- ✓ Sleep Hygiene: - Ensuring Adequate And Quality Sleep Is Crucial For Metabolic Health.
- ✓ Detoxification: - Panchakarma, The Ayurvedic Detoxification System, May Help Cleanse The Body Of Toxins And Restore Balance.

### **Aytha**

*Ahar:* - Sannipatika Prameha Dughda, Dadhi, Takra, Ghrut, Taila, Ikshu Vicara, Gudpishta Aana, Sura, Madha, Anoop Mamsa, Udada, Adhayaasan, Virudhasan, Kaphamedhavirdhak, Aahar, Madhura-Amal-Lavan Rasa Etc.

*Vihar:* - Divasayan, Ati Methun, Swedan, Dhumrapaan, Vegdharan, Raktamokshan Etc.

### **DISCUSSION**

The Increased Incidence Of The Lifestyle Disorders All Over The World Is Due To The Faulty Diet Pattern & Life Style, Obesity. Role Of Ayurveda In The Prevention Of The Lifestyle Disorder Madhumeha Is Very Systematic And Good Manner. In Ayurveda Ahara, Vihara, Dinacharya, Ritucharya, Yoga, Rasayana Are Described Which Have Good Role In Prevention & Cure Of The Lifestyle Disorders. Different Researches Have Been Showed That Ayurveda Drugs Have Effective Role In These Disorders. If Someone Adopt The Diet Pattern, Lifestyle According To The Ayurveda It Can Be Helpful In The Decrease The Incidence Of Madhumeha.

### **CONCLUSION**

In Ayurveda Ahara, Vihara, Dinacharya, Ritucharya, Yoga, Rasayana Are Described Which Have Good Role In Prevention & Cure Of The Lifestyle Disorders. Thus, It Can Be Concluded That Dm Is The World's Oldest Metabolic Disorder. Sedentary Life, Lack Of Exercise, Faulty Food Habits, And Urbanization Precipitate The Disease. Psychological Factors Along With Genetic Predisposition Also Play A Major Role In Its Aetiopathogenesis. By Adopting Ayurvedic Principles Of Healthy Lifestyle And Effective Treatment Modalities Given By Physicians Of Ancient Time One Can Stay Healthy To Prevent Oneself From Diabetes Mellitus And Also From The Problems Associated With It. The Prevention And

Management Can Be Done Successfully In Ayurveda. Moreover, Ayurvedic Treatments Are Safe & Affordable By Everyone.

### Limitation Of Statement

This Article Provides An Overview Of The Ayurvedic Management Of Madhumeha, Focusing On Its Causes, Symptoms, Dietary Recommendations, Herbal Remedies, And Lifestyle Changes To Support Individuals Seeking A Holistic Approach To Diabetes Management.

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