Chapter-12

Classical and Contemporary Aspect of Agni, Ama and Ojas in Pathophysiology of Diabetes Mellitus/Madhumeha

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Abstract

Diabetes mellitus (DM) presents a significant health challenge in the 21st century, often stemming from inadequate adherence to modern lifestyles. It manifests as a syndrome marked by symptoms such as polyuria, polyphagia, polydipsia, joint pain, and impotency. At its core, the pathophysiology of diabetes involves impaired metabolism of carbohydrates, fats, and proteins due to insufficient secretion of insulin or diminished sensitivity to insulin at the tissue level. It is attributed to poor dietary choices and lifestyle errors. It is pointed out as "Silent Killer" because of its unknowingly progression to number of complications in association with pathogenesis of diabetes. Ayurveda is an ancient Indian healthcare system with roots tracing back to the early stages of

civilization. It prioritizes preventive and proactive aspects of health rather than focusing primarily on curative measures. Diabetes mellitus as disease entity described in the context of Prameha/Madhumeha in Ayurveda, a type of Santarpanjnya vikaras (over nourishing disorders) with a subtype of Vataja Prameha. It has quite similarities with Madhumeha of Ayurveda on its etiopathogenesis, types, clinical presentation and principles of management. The role of Agni in digestion, metabolism and causation of disease is well highlighted in classical lexicons. Ayurveda has laid down strong correlation of Agni, Ama and Ojas in the pathogenesis of Madhumeha (DM) and same are also kept in mind at the time of management. In this study aetiology of Madhumeha (DM), including dietary and lifestyle factors are explored under the influence of concept of Agni, Ama and Ojas for contemporary use today.

Keywords: Madhumeha, Diabetes, Agni, Ama, Ojas.

1. INTRODUCTION

Now a day's diabetes mellitus is emerged as major killer worldwide. The current period is characterized by a contemporary lifestyle that significantly impacts physical, psychological, and social well-being. Human lives have undergone considerable transformation that include various aspects of life such as lives, including our residence, dietary choices, work routines, sleep patterns, and overall living standards. The prevalent trend is a desire for and accessibility to conveniences with minimal physical exertion. This shift has given rise to a sedentary lifestyle, leading to increased mortality and a twofold rise in the likelihood of developing cardiovascular diseases, diabetes, and obesity [1].

The term "diabetes" originates from the Greek word "diabainein" meaning "siphon through" and the Latin word "mellitus," translating to "sweetened with honey." Diabetes mellitus comprises a set of metabolic conditions characterized by elevated blood sugar levels due to deficiencies in insulin secretion, insulin activity, or a combination of both factors. The beta cells of the Langerhans in the pancreas fail to produce a sufficient quantity of insulin to adequately metabolize the carbohydrates ingested through food as a consequence, blood sugar levels rise. Prolonged elevation of blood sugar levels leads to persistent damage to various organs, notably the kidneys, heart, eyes, and blood vessels [2]. The global burden of diabetes is on the rise, especially in developing economies like India. According to reports from the World Health Organization (WHO), 32 million people had diabetes in the year 2000 [3]. The International Diabetes Federation (IDF) estimates that the total number of

individuals with diabetes in India is approximately 40.9 million, and this number is expected to increase to 69.9 million by the year 2025 [4]. The chronic complications of diabetes are categorized into microvascular and macrovascular, the former complications encompass neuropathy, nephropathy, and retinopathy, while later complications include cardiovascular disease, stroke, and peripheral artery disease (PAD)[5].

The prevalence of diabetes is higher among urban adults (3.48%) than rural counterparts. Among different gender, urban women (3.53%), and rural men (2.30%) are more affected than their respective counterparts. Among age groups, diabetes is primarily prevalent among the higher age group adults (6.28%), with a higher prevalence among men (6.91%) than women (6.18%) [6]. *Madhumeha* of Ayurveda can be comparable with diabetes mellitus of contemporary biomedical sciences, in toto which drawing parallels in their signs and symptoms. The term "Madhu" and "Meha" convey the concept of a sweet substance resembling honey in terms of taste, odor, and colour, although not in concentration. Ther term Meha denotes passing excess quantity of urine. *Madhumeha* is classified as a subtype of Prameha, specifically Vataja Prameha, which have parallel synonyms like *Madhumeha*, *Madhuprameha*, *Ojameha and Kshudrameha* [19]. The complete pathogenesis of *Madhumeha/DM* in Ayurveda is moving around the functioning of Agnis, *Ama and Ojas*.

2. AETIOLOGY

The primary factors contributing to *Madhumeha* include unhealthy lifestyle practices, insufficient physical activity, and inappropriate dietary habits. Specifically, the consumption of hight calorie diet along with intake of *Ushna* (hot), *Snigdha* (unctuous), and *Guru* (heavy) diet contributes a lot in causation of this condition. Foods and conduct that disturb the balance of *Kapha*, *Meda* and *Mutra* are identified as the principal etiological factors for the development of *Madhumeha*.

Aaharaj Nidan

- Consuming an excessive amount of jaggery, sugar and products containing high levels of sugar.
- Overconsumption of yogurt or excessive intake of curd.
- Consuming an excessive amount of Gramya, Aanup, Audaka mamsa.
- Consuming an excessive amount of milk and its derived products and Prolonged consumption of newly harvested grains, rainwater, or freshly made wine.

Viharaj Nidan

- 1. Sitting in comfortable positions, which may involve a luxurious lifestyle, a sedentary way of living, and insufficient engagement in physical activities and exercise.
- 2. Indulging in the comforts of sleeping, including excessive or prolonged periods of sleep.

3. MANASIKA NIDANA

Excessive *Bhaya*, *Shoka* refusing or neglecting mental activities and avoiding any form of mental exercise.

Samprapti

The primary consequences in the pathology of type 2 diabetes involve a malfunctioning of pancreatic beta cells leading to impaired insulin secretion. Additionally, there is a notable impairment of insulin action due to insulin resistance, which is initiated by variety of autoreactive, inflammatory and non-inflammatory cascade in vicious manner. In situations where insulin resistance is predominant, the beta cell mass undergoes transformation to increase insulin supply, compensating for the excessive and abnormal demand. In simpler terms, the concentration of plasma insulin is elevated in both fasting and feeding states [9].

Madhumeha can be manifested in two ways.

- 12.Avaranajnya: In the context of Avaranjanya Madhumeha, the consumption of Kapha-increasing foods reduces the functioning of GI biofire, which may lead to develop variety of autoreactive species or bio-toxins (Ama) in the system. Further, may lead to initiate obstruction from gross to subtle level. This, in turn, leads to the obstruction of Vata i.e. Vata Avritta, subsequently resulting in Ojas Karshana. Ojas, considered a vital essence in Ayurveda, is drawn towards the Vasti (urinary bladder). As a consequence, the patient excretes urine that is characterized as Madhura (sweet), Kashaya (astringent), and Ruksha (dry), which collectively signifies the manifestation of Madhumeha.
- 13.Dhatukshayajanya: In the context of Dhatukshayajanya, the occurrence of Vata aggravation due to the intake of foods that increase Vata leads to Dhatukshaya (imbalance in the bodily tissues). This imbalance causes a disturbance in the Madhuratva of Oja. The displacement of sweetness by the astringent taste in Oja brings it to the Vasti, resulting in the excretion of urine with a combination of sweet and astringent tastes. This process, known

as *Madhuvat Mutratyaga*, is a crucial step leading to the manifestation of *Madhumeha*.

Samprapti Ghatak

Dosha – Vata, Pitta, Kapha

Dushya – Meda, Mamsa, Kleda, Rakta, Vasa, Majja, Lasika, Rasa and Ojas

Agni -Jatharagni, Dhatvagni, Bhutagni (Specially Medoagni)

Ama – Aparipakva Ama and Aparipakva dushya.

Srotas (channel) – Mootravaha, Medovaha, Mamsavaha and Udakavaha Srotas

Srotodushti – Atipravritti

Roga Marga – Abhyantra

Pratyatma Laksana – Prabhuta Mutrata and Avil Mutrata

Udhbhavasthana – Kosthha

Vyaktasthana – Mootravaha Srotas

Vyadhi Svvabhava - Chirakari

Agni and Ama in Madhumeha

Ayurveda recognizes an essential element in the process of digestion and metabolism known as "Agni." In Ayurvedic terminology, "Agni" refers to the digestive and metabolic functions within the body. It plays a crucial role in transforming ingested food into energy, which in turn, governs the various vital functions of the body. The Agni principle is fundamentally considered one of the Panchmahabhuta (five primordial elements) and serves as a crucial leader in the entire process of Paka, encompassing digestion, transformation, and related activities. The concept of Agni is intricately linked to an individual's health and is closely associated with the onset of diseases. According to Ayurveda, an improper diet or faulty lifestyle can lead to Agni Dushti, resulting in abnormalities in *Dhatus* (tissues) and eventually giving rise to various diseases. This perspective is elucidated by Acharya Charaka, Acharya Sushruta, and other authorities in this field. In discussing the process of Vyadhi Nirmiti (formation of diseases), the ancient Ayurvedic texts emphasize that a weakened power of Agni, known as Agnimandya, serves as the fundamental cause for the majority of disorders.

Agni has been classified into 13 types based on its functions and sites of action. This classification includes one *Jatharagni*, five *Bhutagni*, and seven

Dhatvagni. The *Agni* in the body is categorized into four types based on their strength or *Bala* (power)

- 1. Teekshnagni-Pitta dosha Predominance
- 2. *Mandagni-Kapha dosha* Predominance
- 3. Samagni-Balanced Vata, Pitta and Kapha Dosha
- 4. Vishamagni-Vata dosha Predominance

The term "Ama" is derived from the "Am" Dhatu with the suffix "a" signifying improper or partially digested matter. Therefore, any substance that disrupts the normal healthy state of the body or any part of the body can be regarded as ama [14]. Ama generated due to a low level of Jatharagni (digestive fire) and Bhutagni (elemental fires) possesses a heavy and sticky nature, leading to blockages in the body's channels. When Ama combines with Doshas & Dushyas, it is termed as Samadosha-dushya, which has the potential to cause chronic illnesses including Madhumeha [22].

From the perspective of modern physiology, various substances in the body, such as enzymes, hormones, catalysts, etc., undergo transformations and transmutations. When these substances fail to function properly or completely, they result in the formation of different auto reactive metabolites that the body cannot utilize. Further, these metabolites accumulate in different systems, disrupting the normal functioning of the respective systems. In this context, these accumulated metabolites may be considered akin to the concept of *Ama* in Ayurveda.

4. STATUS OF AGNIS IN MADHUMEHA

Jatharagni in Madhumeha: *Jatharagni* holds significant role in digestion process as it is present in all other *Agni*. Therefore, *Jatharagni* plays a crucial role in regulating the functioning of the rest of the Agnis. When there is a impairment in the functions of *Jatharagni*, it can lead to dysfunction in *Bhutagni* and *Dhatvagni* [18].

In the context of *Madhumeha*, when an individual engages in dietary and lifestyle practices that promote the aggravation of *Kapha* i.e. Shleshmakara Ahara-Vihara, it results in a weakening of *Jatharagni*. This impaired *Jatharagni* leads to improper transformation of ingested food, particularly with respect to *Kapha*. This results in the inadequately processed state *Aparipakvata* of *Kapha*, also known as *Amaroopi Shleshma Utpatti*. The development of *Amaroopi Sleshma*, lacking proper cohesion due to the loss of *Samhanana*, contributes to *Bahudravata* of *Kapha*, leading to further disturbances of *Dhatus*.

The enzymes responsible for transforming exogenous substances into endogenous substances within the body is referred to as *Agni*. In this context, various digestive components such as gastric secretions, pancreatic secretions, and intestinal secretions can be considered integral components of *Jatharagni*, which plays a crucial role in the digestive process.

Bhutagni in Madhumeha: *Bhutagni* is the digestive fire present in the basic elements or *Bhutas*. There are five *Agnis* corresponding to each of the five basic elements, namely - *Parthiva* (earth), *Apya* (water), *Tejas* (fire), *Vayavya* (air), and *Nabhasa* (ether or space). It is important to note that every cell in our body is composed of these five *Mahabhutas* or basic elements. Acharya Charaka has noted that the five *Bhutagnis* are responsible for digesting their respective parts of the elements present in food. After the digestion process by the *Bhutagnis*, the assimilated materials, which contain elements and qualities akin to each specific *Bhuta*, nourish the corresponding elemental constituents in the body [15][18].

In the context of modern physiology, the function of *Bhutagni paka* can be likened to the conversion of digested materials in the liver. In the context of *Madhumeha*, the causative factors i.e. Nidana involve an excess of *Pruthvi* (earth) and *Jala* (water) *Mahabhutas*. This excess affects *Pruthvyagni* (fire of earth) and *Jalagni* (fire of water). Since *Kapha* is composed of *Prithvi* and *Jalamahabhuta*, the impaired functioning of *Bhutagni* leads to the overproduction of *Vikrita Kapha*. This, in turn, results in an increase of *Madhura Rasa* (sweet taste) in the body.

Dhatvagni in Madhumeha: The concept of *Dhatvagni* in Ayurveda represents the comprehensive set of anabolic processes that operate within the specific tissues of the body. In Ayurveda, it is explained that each of the seven *Dhatus* (the seven elemental tissues of the body) possesses its own *Agni*, which is responsible for metabolizing the nutrient materials supplied to them through their respective *Shrotas* (channels). *Dhatvagni* is further subdivided into seven types, namely *Rasagni* (digestive fire for plasma), *Raktagni* (digestive fire for blood), *Maansagni* (digestive fire for muscle tissue), *Medoagni* (digestive fire for adipose tissue), *Asthyagni* (digestive fire for bone tissue), *Majjagni* (digestive fire for bone marrow), and *Shukragni* (digestive fire for reproductive tissues). These *Dhatvagnis* collectively contribute to the formation and maintenance of the body's immunity [19].

Acharya Gananath Sen termed the disease *Madhumeha* as *Dhatvagni* vikriti janya, suggesting that it originates from an imbalance or distortion in *Dhatvagni*. In *Madhumeha*, there occurs either a qualitative or quantitative vitiation in *Dhatvagni*, which refers to the impairment or alteration in the

digestive fire specific to the tissues. The laxity or looseness of the body, known as *Sharira Shaithilya*, is caused by the accumulation and obstruction of *Abadha Meda*. The abundance of *Meda* (fat) leads to an impairment of *Dhatvagni*, the digestive fire specific to adipose tissue. This *Dhatvagnimandya* subsequently results in an increase in the quantity of *Meda* (fat).

Drawing a correlation between insulin and *medhodhatvagni* is a concept that might require substantial evidence for precise validation. While there may be associations between insulin function and fat metabolism, establishing a direct and accurate correlation would necessitate comprehensive scientific evidence and research. Due to the weakened function of *dhatvagni*, *dosha* and *dushya* are in an improper state of digestion and transformation, referred to as *Aparipakvavastha*. This condition indicates metabolic impairment in *Madhumeha*, contributing to the pathogenesis of the disorder.

Agni in the body in relation to variety of disorders including *Madhumeha* can be accessed on the basis of 14 points grading scale for measuring Agni status as developed by Singh R.H and Associates [17].

Sl. No	Clinical Features	Grade Scores		
		0	1	2
1	Appearance of normal voice	Normal	Average	Poor
2	Appearance of normal complexion	Normal	Average	Poor
3	Nourishment of the body	Normal	Average	Poor
4	Physical strength	Normal	Average	Poor
5	Desire for taking food	Normal	Slightly Slightly	Reduced/
			Reduced Increased	Increased
6	Appetite for food	Normal	Slightly Slightly	Reduced/
	during meal time		Reduced Increased	Increased
7	Proper digestion of	Timely	Takes Long Time	Not
	food	Digested		Properly
				Digested
8	Normal and regular	Normal	Slightly Impaired	Grossly
	sleep			Impaired
9	Feeling of well being	Always	Occasionally	Never
10	Proper and timely	Normal	Slightly and	Impaired
	evacuation of Vata	without any	Occasionally	Frequency
	(Flatus)	problem		
11	Proper and timely	Normal	Slightly and	Grossly
	evacuation of Mutra	without any	Occasionally	Altered

	(Urine)	problem		Frequency
12	Proper and timely	Normal	Slightly and	Grossly
	evacuation of Purisha	without any	Occasionally	Altered
	(Stool)	problem		Frequency
13	Proper and timely	Normal	Slightly impaired	Grossly
	evacuation of Retas			altered
	(Libido)			frequency
14	Status of mind and	Balanced	Occasionally	Frequently
	intellect		disturbed	disturbed

- Grading of Angi Status
 - > 0=Normal
 - ➤ 1=Average
 - ➤ 2=Poor

Status of Ama in Madhumeha

Improper functioning *Agni* (digestive fire) may lead to hampers the digestion and metabolism of taken food. These incompletely processed food components and metabolites become available in the system in the form of *Ama* as mentioned in Ayurveda. The available form of Ama imparts a threat to a person's health. In Ayurveda, *Ama* is considered a significant factor responsible for the development of various diseases including diabetes mellitus. This form believed to disrupt the normal functioning of the body and contribute to the pathogenesis of numerous health conditions.

The description in Sushruta Nidana 6/4 suggests the concept of "*Pravrittasyaparipakva*," indicating the involvement of both *Ama* (undigested substances) and *Amadosha* (abnormal doshas) in the pathogenesis of diabetes mellitus. Specifically, it mentions "*Medascha Aparipakvam*," highlighting the impaired maturation of *Medas* (fat tissue) with the characteristics of *Ama*.

In this context, it is emphasized that the process of *medas* formation is not completely interrupted but impaired, with the qualities of *Ama*. This impaired process affects not only the formation of *Medas* but also involves other *Dhatus* in the body. The underlying factors include the impaired functioning of *Jatharagni* and *Dhatvagnis*, leading to the *atidravatva* of the *doshas* in *Madhumeha*.

As a consequence, these *Dravibhuta dhatus* get dragged and excreted through *mutra vaha srotas*, contributing to the manifestation of *Madhumeha*. The involvement of impaired digestion, formation of *Ama*, and the impact on

various dhatus underscores the multifactorial nature of the pathogenesis described in Sushruta Nidana.

The strength of Ama is accessed in various clinical conditions including *Madhumeha* on the basis of 16 points grading scale to measure Ama status as developed by Singh Amit and Pandey AK.

Gradation for Ama state

- 0 point No Ama strength
- 1 40 point Minimal Ama strength
- 41 80 point Mild Ama strength
- 81 120 point Moderate Ama strength
- 121 160 point Severe Ama strength

Ojas in Madhumeha

Ojas is a term that encompasses various aspects of Vitality, Vigor, Lustre, power, bodily strength, and energy. It represents the essence of all the *Dhatus* and is considered the ultimate product of perfect digestion and metabolism. *Ojas* is crucial for maintaining overall health, immunity, and resilience in the body. It is often referred to as the subtle essence that provides endurance and vitality to an individual.

Any dysfunction in *Ojas* results in the deterioration of the body, while maintaining its proper balance prevents any form of degeneration. *Ojas* is centered in *hridaya* and circulates throughout the entire body, crucial for sustaining life.

In the *Samprapti* of *Madhumeha* in Ayurveda, *Ojas* actively engages as a *Dushya*. In *Madhumeha*, aggravated *Vata*, influenced by the provocation of *doshas*, displaces the *madhuratva* (sweetness) of *Oja* with *kashayatva* (astringency). This altered *Ojas* is then transported by *Vata* towards *basti* and eventually expelled through urine. Due to *Ojakshaya* (depletion of *Ojas*), which is the essence of all the *Dhatus*, symptoms such as *Gurugatrata* (heaviness in the body), *Murccha* (fainting), *Nidra* (excessive sleep), *Tandra* (drowsiness), and *Daurbalya* (weakness) may manifest. As *Ojas* is likened to immunity in Ayurveda, the depletion of *Ojas* in a *Madhumeha* patient makes them more susceptible to various infectious diseases. [19]

Ojas status in general and specific to *Madhumeha* can be accessed on the basis of 14 points Grading Scale for measuring Ojas status developed by Singh RH and associates. [17]

1. Sthira Mamsa/ Upachita Mamsa 0- Well-formed musculature 1- Normal musculature 3-Average musculature 4-Poor musculature 2. Swara Prasad (Form of Voice) 0- Balanced smooth uninterrupted voice 1- Takes some effort to talk 2- Delicate and shallow voice 3- Heena swara, feels pain in the throat while talking and feels exhausted after a few minutes to talk 3. Varna Prasad (Lustre of Skin) 0- Lustre skin 1- Normal skin without lustre 2- Lack of lustre and dry skin 3- Dry and lustreless skin. 4. Twak (Sense of Touch) 0- No sensory loss and abnormal sensation present 1- Burning sensation present in the extremities 2- Tingling and burning sensation associated with numbness 3- Marked symptoms of peripheral neuritis. 5. Chaksu (Power of Vision) 0- Vision capacity intact 1- Immature cataract, lustreless eyes 2- Matured cataract with moderately reduced vision 3- Other findings by fundoscopy, supportive of diabetic retinoscopy. 6. Srota (Sense of Hearing) 0- Normal hearing capacity 1-Abnormal sound heard (tinnitus) 2-Slightly reduced power of hearing 3- Moderate to severe loss of hearing capacity. 7. Jihwa (Sense of Taste) 0- Can perceive all kinds of taste 1- Reduced capacity to perceive taste 2- Moderate loss of taste ability 3- Severe loss of taste 8. Ghrana (Sense of Smell) 0- Can perceive all kinds of smell

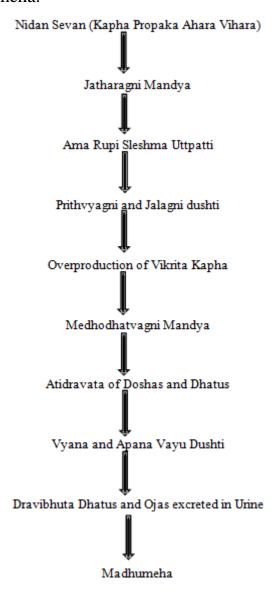
1-Reduced capacity to perceive smell2- Moderate loss of sense of smell3- Severe loss of sense of smell.

9. Payu (Bowel Function)							
0- Intact bowel control							
1- Occasional bowel impairment							
2- Increased or decreased bowel frequency							
3- Completely altered bowel habit							
10. Upastha (Mutrendriya Function)							
0- Normal or intact bladder control							
1- Occasional bladder impairment							
2- Partial retention, incontinence and increased frequency of							
micturition							
3- Completely altered bladder function (severe polyuria/ anuria)							
11. Upastha (Jnanendriya Function)							
0- Normal libido							
1- Decreased frequency with normal performance							
2- Decreased frequency with inefficiency to perform sexual act							
3- No sexual stimulation at all							
12. Mana And Buddhi (Psychological Status)							
0- Psychologically well balanced							
1- Looks worried, gets angry very frequently							
2- Associated with either depression or anxiety							
3- State of psychological instability.							
13. Bala (Physical Strength)							
0- Can perform excessive work without getting fatigue							
1-Can carry out routine activity without getting fatigue							
2- Perform routine activity with fatigue							
3- Difficulty to perform and cannot perform routine activity.							
14. Disease Propensity							
0- Rarely get minor ailments							
1- History of episode of fever, cold, diarrhoea, cough, allergy.							
2- Frequently gets due above ailments							
3- H/O major illness such as T.B, chronic fever, Recurrent infection							
etc							

5. DISCUSSION

Madhumeha is a subtype of Vataja Prameha. Vata, the dosha associated with air and ether elements, is considered the originator and executor of biomotor functions in Ayurveda. Both Apana and Vyana Vayu are responsible for the pathogenesis of madhumeha. Kapha, according to Ayurveda, forms the basis for the structural integrity of the body, providing steadiness, sturdiness, and strength. It is responsible for keeping togetherness various structures. However, in Madhumeha (diabetes), the functions of Kapha are compromised.

Vitiated Kapha in turn lead to dushti of Rasa, Mamsa, Meda, Vasa, Lasika, and Ojas. The vitiation of Pitta in Madhumeha affects the normal functions of Jatharagni and Dhatvagni, leading to the excessive formation of deranged qualities in Rasa (plasma), Mamsa (muscle tissue), Meda (adipose tissue), Kleda (fluids), etc. As a person indulges in more Kapha Propaka Ahara vihara, it results in Jatharagni Dushti which further leads of Aam rupi Sleshma Uttpati. Since the function of Dhatvagni and Bhutagni is dependent upon Jatharagni, so hampered Jatharagni leads to further dushti of Bhutagni and Dhatvagni. Hindrance in the normal pathway of Vata by Ama dosha causes obstruction, leading to the aggravation of Vyana. This, in turn, results in the transportation of vital Dhatu Oja towards Vasti, where the already aggravated Apana excretes it out from the body. This process leads to the depletion of Dhatus and the onset of the disease Madhumeha.



6. CONCLUSION

The integration of classical Ayurvedic concepts with contemporary perspectives on diabetes provides a holistic understanding of the disease. The Ayurveda emphasizes the importance of individualized approaches to restore balance in *Agni*, eliminate *Ama*, and enhance *Ojas*, while modern medicine focuses on insulin regulation, inflammation control, and oxidative stress management. Due to the impairment of *Dhatvagni* and *Srotavarodha*, the *Dhatus* are unable to efficiently utilize *Ahararasa* for energy production. This disruption leads to further complications in *Dhatu* production. The surplus quantity of unutilized *Ahararasa* is regarded as *Mala* and is excreted from the body. We finally conclude that the concept of Agni, Ama and Ojas are highly evolved in Ayurveda that have taken care of for the genesis of Madhumeha/DM and the same is kept in at the time of diagnosis and management Individualized care, lifestyle modifications, and a holistic view of health are common threads that weave through both classical and contemporary approaches.

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