



ROLE OF RASAYANA CHIKITSA AND ITS UTILITY - A BOON IN THE MANAGEMENT OF PRAMEHA WITH REFERENCE TO DIABETES MELLITUS

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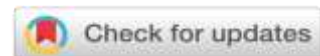
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ABSTRACT

Rasayana Chikitsa is a unique concept in *Ayurveda* and is concerned with the revitalization of energy and boosting immunity to maintain health. In *Ayurveda prameha* is one of the most common diseases of the immune system. In *Prameha* there will be *Bahu Drava Kapha* which affects *Medo Dhatu* leading to *Dhatu Shaithilyata* and *Dushya Kledamutrotpatti*. *Prameha* is considered one of the *Mahavyadhi*. A sedentary lifestyle, improper diet, mental stress, strain, lack of physical activity, and genetic factors are responsible for diabetes. In these cases long-term treatment and rejuvenating therapies like *Rasayanas* which will act on *the Agni* level, increase *Ojas* and remove *Margavarana*. In diabetes, the beta cells are responsible which hampers the immune system leading to invading pathogens susceptible to infections. Therefore, to regularize beta cell destruction antioxidants, immunomodulators such as interleukin- 6, cytokines which help in free radical is the need for treatment. The primary goal is not only to achieve normoglycemia but also to minimize the complications caused by it and improve the immune response by *Rasayana Chikitsa*. Various *Rasayana Dravyas* like *Shilajatu* and other drugs with single or compound formulations having *Ojovardhaka*, *Prameghna*, *Medha Buddhikara*, *Agnivardhaka*, *Rasayana* properties from various classics are mentioned in this article to maintain the metabolic stability and immune strength in diabetic patients. *Rasayana Chikitsa*, if used plays a vital role in the prevention of further deterioration of the disease and even delays the complications of *Prameha*.

Keywords: diabetes mellitus, immunomodulators, *Prameha*, *Rasayana*

INTRODUCTION

The human body has various mechanisms to protect itself from many pathogens and it depends on the immune system. The immune system is of two types- cell-mediated and humoral immunity. In diabetes mellitus, the immune response is less compared with non-diabetic patients.

The word *Prameha* is derived from 2 words - *Pra* and *Meha*. *Meha* is derived from the root “*Mih Sechane*” which means to excrete. *Prameha* is *Tridoshaja* and hence specific changes that are taking place in the doshas are responsible for disease progression. *Kapha* is vitiated with specific changes and that is *Bahudrava*. *Charaka* described the changes manifested in the form of '*Shaithilya*' or *Sharira Shaithilya* and *Kapha* being *Sthira* ⁽¹⁾. *Chakrapani* described that *Sthiratva* means *Ashaitilya* Hence, *Bahudravatva Sleshma* i.e., vitiated *Kapha* causes disruption in the body elements, makes the disease flare up and induces *Khavaigunya*, and when Doshas gets accumulated their manifests as *Prameha* Vitiating of *Kapha* occurs by changes in quantity and quality and presents with *Shaithilya*, *Alasya*, *Atinidra*, *Gaurava* ⁽²⁾. In *Ayurveda*, *Kapha* and *Meda* are considered the only culprit for the disease. *Kapha* and *Medas* have a close resemblance in quality and functions thus increase, decrease, or changes have an effect on each other and thus they get vitiated similar outcomes.

Having similar properties with *Kapha*, factors that vitiate *Kapha* too vitiates *Meda Dhatu*. Diet having prominence in *Guru*, *Snigdha* (unctuous) properties, *Avyayamadi* increases *Medas* that results into *Bahutva* of *Meda Dhatu*. This increase in *Medas* is *Ama Rupa* and is due to the malformation of *Agni* i.e., *Medo Dhatvagnimandya*. *Dhatvagni Mandya* not only results in *Dhatu Vridhi* but may also induce *Abaddhatva* of *Medas* too. This *Abaddhameda* results in '*Sharira Shaithilya*', which is a pathological state.

Ojas are the essence of seven *Dhatu* and hence *Ojas* plays a vital role in the maintenance of a healthy state as well as *Ojas* if decreased (*Kshaya*) or vitiated (*Vyapada*, *Visransa*) leads to disease. In *Prameha*

or *Madhumeha*, pathological change in features of *Ojas* is of *Kshaya* nature (depletion) and it actively participates in disease and is *Dushya* ⁽³⁾ Diabetes mellitus are a group of metabolic disorder that has hyperglycemia because the pancreas produces insufficient insulin or cells do not respond to it while the plasma glucose levels are above the given limits ⁽⁴⁾. Diabetes is of two types 1. Diabetes mellitus I or insulin-dependent diabetes and 2. Diabetes mellitus II. DM I is an auto-immune disease in which there will be destruction of β cells and diabetes mellitus II occurs due to insulin resistance or insulin sensitivity ⁽⁵⁾. Almost 90% of cases are of type II diabetes ⁽⁶⁾. The symptoms are polyuria, polydipsia, polyphagia, fatigue, lethargy, and weight loss hence it is believed in *Ayurveda* that it occurs mainly due to *Medo Dushti* and this *Medo Dushti* will vitiate *Rakta*, *Mamsa*, *Kleda*, and *Ojas*

Diabetes mellitus has been alarming worldwide. Type II DM can be uncontrolled if proper treatment or attention is not given. Uncontrolled type II DM may lead to alterations in the immune system. In diabetes mellitus, the immune response is less comparatively and thereby increasing the susceptibility to infections. The altered immune response can be attributed to factors like an increase in the concentration of glucose, inflammation, and the production of advanced glycation end products (AGE). Glutathione levels have been compromised in diabetes patients. The enhancer gene sequence named antioxidant response element (ARE) induces the synthesis of basal and glutathione enzymes. Some have also found that there is a decrease in TNF- α by 5 times. Inflammatory molecules like interleukin-6 and interleukin-1 increase and cytokine changes in the environment may lead to alterations in the immune system. A person with a weakened or less immune system has cytokine imbalance or dysregulation in type II DM patients impairing immune response ⁽⁷⁾

Role of Immunomodulators

Immune intervention strategies have been designed as therapeutic agents in the treatment of auto immune diabetes. Immunomodulators like IL-1,

CTLA-4Ig, and monoclonal antibodies (MAb) to expand and immunotherapies have shown the preservation of the C-peptide response⁽⁸⁾. Immunomodulators are considered the most potent in the management of disease and the understanding, and utility of the immune system through immunomodulators are at an increasing pace.

Role of stress in Prameha

The stress system consists of neuro endocrine structures involving CNS and periphery⁽⁹⁾. Many studies have suggested a link between stress due to abnormal glucose response due to increase activity and stimulation of α adrenergic stimulation⁽¹⁰⁾ Sugar levels are controlled by cortisol and adrenaline, glucagon, and growth hormone. Stress often leads to an increase in the cortisol hormone⁽¹¹⁾. Chronic stress also plays a role in immunomodulation.

Charaka has mentioned terms like *Krodha*, *Shoka*, and *Udwega* in *Pittaja* and *Kaphaja Prameha* which can be related to psychological stress factors. In *Ayurveda* stress and anxiety in *Prameha* individuals, the *Samprapti* occurs from vitiation of *Agni* giving rise to *Ama* that settles in *Basti* (bladder) as mentioned in *Grahani Roga Adhikara*⁽¹²⁾

Rasayana Prayoga in Prameha

In *Ayurveda*, *Prameha* can be managed by *Shodhana*, *Shamana Chikitsa* and nowadays *Rasayana Chikitsa* is also used widely as *Rasayana Chikitsa* deals with *Oja Vriddhi*, *Bala Agni Vriddhi*, and *Vyadhi Kshamtva* can be achieved by *Rasayana Chikitsa*. *Rasayana* is considered one of the *Ashatanagas* of *Ayurveda*. The term *Rasayana* is made of two – *Rasa* means nutrition and *Ayana* means transportation in the body. It is defined as “*Labhopyayo Hi Sastanam Rasadinam Rasayanam*”⁽¹³⁾. The fundamental concept of *Rasayana* is to give nutrition and strength. The concept of *Naimittika Rasayana* has been described for specific diseases. In *Prameha Rasayana Prayoga* is important and beneficial. *Rasayana Chikitsa* strengthens the *Ojas* and *Bala*. *Rasayana* drugs directly influence the better formation and bio immune strength. *Rasayana* reduces oxidative damage caused by free radicals. antioxidants such as vitamin C and E develop less risk of

diabetes mellitus. So, drugs like *Amlaki*, *Guduchi*, and *Ashwagandha* act as antioxidants. Many *Acharyas* and books like *Charaka Samhita*, *Ashtanaga Hridaya*, *Sushruta Samhita*, *Yogaratanakar*, *Chakradatta*, *Basavarajeeyam*, *Bhaishajya Ratnavali*, etc. have mentioned single drugs and compound formulations of *Rasayana* for *Prameha*.

Single herbs used in Prameha as Rasayana

1. **Manjishta** – *Tikta*, *Kashaya*, *Madhura Rasa*, *Ruksha Guna*, *Ushna Virya*, *Kaphapitta Shamaka*, *Pramehagna*, *Rasyana*, *Balya*, *Dipana*, *Pachana*. *Manjishta* and *Chandana Kashaya* can be given in *Manjishta Meha*⁽¹⁴⁾
2. **Guduchi** – *Katu Tikta Kashaya Rasa*, *Ushna Virya* reduces *Kleda Dushti* and reduces *Agnimandhya*, *Aruchi Dourbalya* in *Prameha* due to its *Snigdha* and *Mridu Guna*.
3. **Mandukaparni**⁽¹⁵⁾ – *Tikta Rasa*, *Laghu Guna*, *Vatapitta Shamaka*, *Vayasthapana*, *Balya*, *Rasayana*, *Medhya*, *Agni Dipana*, *Pramehaghna*
4. **Amlaki** – research conducted in animals, *Amlaki* reduces triglycerides and cholesterol levels which helps in cardiovascular health and has antioxidant properties, vitamin c, and tannin. *Dhatri Swarasa* with honey cures *Sarvameha*.
5. **Nimba**⁽¹⁶⁾ – *Tikta*, *Kashaya Rasa*, *Laghu Guna*, *Kapha Pitta Shamaka*, *Rasayana*, *Ama Pachana*, *Balya*, *Mehagna (Prameha)*, *Madhumeha*, *Sarvameha*). *Nimba Taila* is widely used in the treatment of *Prameha*.
6. **Haridra** – antioxidant and free radical scavengers have the ability to augment glutathione levels directly. It acts as *Medoghna* by doing *Soshana* of *Kleda* due to *Laghu* and *Ruksha Guna*

Rasayana drugs used for reducing stress in Prameha⁽¹⁷⁾

- *Jatamansi*– lowers intellectual stress, anti-diabetic, *Medhya Rasyana*
- *Ashwagandha* – reduces stress and is anti-diabetic in nature.
- *Amlaki*
- *Guduchi*
- Formulations like *Saraswatharishta*, *Medhya Rasayana*

Bhasma formulations having Rasayana properties in Prameha.

- **Swarnamakshika Bhasma** - It is Madhura, Tikta Rasa, Rasayana, cures Prameha, Kushta
- **Abraka Bhasma** – it has Kashaya Rasa, Madhura Vipaka, Ojovardhaka, Rasyana. It mainly acts on Rasa, Rakta Mamsa, and Medo Dhatu and hence corrects Dhatukshaya and Medo Dushti
- **Vanga Bhasma** – it is Tikta, Ushna Virya and acts on Rasa, Rakta, and Medo Dhatu and is effective in acting Medo Dhatu due to its Pachana Dipana properties and there is Agni vriddhi thereby preventing Vikruta Meda's formation.

Rasayana Formulations for Prameha in different books

- *Yogaratanakar* – Meha Kunjarakesari Rasa, Mahavangeswara Rasa, Gandhaka Rasayana, Shilajatu Yoga, Swarna Makshika Bhasma, Vasanta Kusumakara Rasa
- *Sushruta Samhita* ⁽¹⁸⁾- Swarna Makshika, Shilajtu Prayoga, Raupya Makshika
- *Bhaishajya Ratnavali* ⁽¹⁹⁾ – Swarnamakshika Prayoga, Chandraprabha Vati, Shilajatu Prayoga, Vangeswara Rasa, Swarna Vanga, Mahalaxhmivilasa Rasa, Purnchandra Rasa, Karshyaharaloha, Saraswatarishta

lakshmvilasa Rasa, Purnchandra Rasa, Karshyaharaloha, Saraswatarishta

- *Ashtanga Hridaya*- Shilajatu Rasayana, Triphala Yoga, Medhya Rasayana, Bhallataka Yoga, Pippali Yoga, Shilajatu Yoga

Other preparations like Shilajatu, Vidanga, Grita, Loha, Abhaya, Parada, Madhu, and Tapyas are mixed together and are given for Apuryate Durbala Deha Dhatu which acts as Rasayana in Prameha⁽²⁰⁾

- *Chakradatta* – Lauha Rasayana, Shilajatu Prayoga, Swarnamakshika

Preparations like Triphala, Shilajatu, Loha Bhasma, and Haritaki with honey alleviate all types of Prameha and can be considered as a form of Rasayana due to its ingredients and properties ⁽²¹⁾

- *Vangasena* – Lauha Rasayana, Shilajatu, Swarna Makshika
- *Basavarajeeyam* – Chandraprabha Vati, Vasanta kusumakara Rasa, Panchaloha Rasayana
- *Charaka Samhita*- Amlaki Rasyana, Haritaki Rasayana, Vardhamana Pippali Rasayana, Bhallataka Yoga

Table1. Drugs with Rasayana Aushadha

Context	Drugs used
Naimittika Rasyana	Shilajatu, Amlaki, Haridra
At the level of Dhatu	Shilajtu, Guggulu, Amrita (Guduchi)
At the level of Srotas	Shilajtu, Guggulu, Amrita
At the level of Ojas	Jivaniya Gana, Pippali, Swarna
At the level of Agni	Shunti, Chitraka
At the level of Rasa	Kashaya Yukta Dravya Sneha

DISCUSSION

In Prameha Ojas (Apara Ojas) is hampered and Vata, Pitta, and Kapha Doshas are involved due to Ahita Ahara Vihara Sevana which hampers the Agni and proper functioning of Dhatus do not take place along with Ambu, Lasika, Vasa, Majja. Rasayanas convert Rasa directly by passing Jirna Ahara and hence they do not produce Ama and start unfolding Dhatus so that Ojas can come to normalcy ⁽²²⁾. Prameha Medas and Ojas as the main factors which

are affected by this disease. Agni and Ama are auto toxins, playing a major role in disease complications. Similarly, there is strong evidence of immune disorder and immunodeficiency in all diabetes and its related complications. Because of such morbid factors, in Prameha Ojas is considered an important Dusya. Medas or bodily lipids have an association with DM which may lead to a variety of other disorders. Medas with or without Ama is predicted to play a major role in the development of DM and its complications ⁽²³⁾.

Acharya Sushruta have mentioned *Naimittika Rasayana* specific to diseases which acts on *Agni, Srotas* ⁽²⁴⁾. It exhibits antioxidants, immune commutants, and tissue-protecting properties. *Rasayana* agents improve the *Agni* and thus promote *Dhatu Poshana*. *Rasayana* drugs which act at the level of *Agni* have *Tikta, Kashaya Rasa, Deepana, and Pachana* properties and *Laghu, Ushna Guna*, thereby promoting the functions of *Agni* for the digestion of food and the *Dhatwagni* to vitalize the metabolic resulting in turn to improved nutritional status at the level of *Dhatu* like *Pippali* and *Bhallataka* ⁽²⁵⁾. *Rasayana* acts primarily at the level of *Rasadhatu*, and it improves the quality of *Dhatu* production by improving *Agni* and removing *Srothorodha*. *Rooksha Guna* of *Tikta Rasa* helps in eliminating the increased and loosely compacted body elements through its *Soshana Karma* and thereby removes the *Dhatwagni Mandhya* and by *Laghu Guna* it activates the *Dhatwagni*. In *Ayurvedic* therapeutics Mineral drugs always remain superior to herbal and animal products. Due to their better qualities like long shelf life, quick action, palatability, and effectiveness with minimal doses, mineral preparations are preferred over herbal formulations. As an immunodulatory, *Shilajatu* has been reported to reduce macrophage and lymphocyte activation and migration. Moreover, being an antioxidant, it will prevent damage to the pancreatic islet cell induced by the cytotoxic oxygen radicals ⁽²⁶⁾. Gupta et al suggested that long-term treatment with *Shilajatu* increases the number of β -cells in the pancreas which may result in better sensitivity of pancreatic β -cells with the prompt secretion of a large quantity of insulin in response to hyperglycemia ⁽²⁷⁾ As the *Bala* of a *Prameha* or *Madumeharogi* is concerned, *Shodana* is not an apt choice always, also excessive *Santharpana* or *Apatarpana* may make the condition worse. The above drugs mentioned in this will provide the effect of *Shodana* (purification), without hampering the *Bala* of the patient due to its properties like *Tridosha haratwa, Medoharatwa, Agnideepana, Srothosodhana, Yogavahitwa*, etc. Various *Rasayana Dravyas* like *Shilajatu* and other drugs with single or compound for-

mulations have *Ojovardhaka, Prameghna, Medha Buddhikara, Agnivardhaka, and Rasayana* properties. *Rasayana Dravyas* like *Guduchi, Shilajatu, and Haridra* also acts as immunomodulators by strengthening immunity by improving defense mechanism and thereby reducing susceptibility to infections.

CONCLUSION

In *Prameha*, these minerals are rich in many micronutrients, which makes it more favourable. The main goal of treating diabetes is to prevent acute manifestations and long-term microvascular and macrovascular complications. *Rasayanas* can produce better glycemic control along with improvement in the lipid profile. They are potent for curative and preventive purposes and also provide a strong and healthy body and delay ageing.

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