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INTERNATIONAL JOURNAL OF DIAGNOSTICS AND RESEARCH**A Cross-Sectional Study Of *Jihwa Pariksha* In *Prameha* With Special Reference
To Diabetes Mellitus**Dr. Mrunal Bhoir¹, Dr. Jai Kini², Dr. Kavan Zankat³, Dr. Avani Sanghani⁴

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Abstract

Acharya charak has described that *srotamsi* are channels which transport the *Dhatu* (*asthaya* or *poshya dhatu*) which are subjected to transformation. The term *srotas* refers to channels or systems within the body through which tissues are developed, materials are metabolized, secreted, or transported. (SRKR, 2008) *Swedavaha srotas* is one among the thirteen types of *srotas*, which flushes out the body waste in the form of sweat. In '*Bhanumati*' tika, *acharya chakrapani* said, that '*jalamahabhoot*' are predominantly present in *sweda*. *Acharya charak* stated in *sharir sthan*, that *Jala*, *lasika* and *sweda* is in ten *Anjali Pramana*. *Swedavaha srotas* are pathologically important because any deformity in this *srotas* causes excessive perspiration or no perspiration and other symptoms related to this *srotas*. In various diseases, for example- *Kustha*, *Pandu*, *sthaulya*, *prameha*, *Vatrakta*, *Jwara* etc., vitiation in *swedavaha srotas* causes different *Rupa* and *Purvarupa* obstruction in *swedavaha srotas*.^[2] In diagnosing and understanding *Prameha* in patients with *Swedavaha Srotodushti vikar*, *Jihwa Pariksha*, or tongue examination, serves as a valuable diagnostic tool. This examination involves observing various features of the tongue, such as its color, coating, presence of fissures, texture, and movements. By assessing these characteristics, practitioners can gain insights into the patient's overall health, including potential imbalances in the *Swedavaha Srotas* and related conditions. Aim: To conduct *Jihwa Pariksha* in patients with *Prameha* (diabetes mellitus). Objective: To study changes in *Jihwa* manifested in patients of *Prameha* (diabetes mellitus). Material & Methods: *Jihwa* of 26 patients of *Prameha* (diabetes mellitus) are observed for color, coating, fissures, texture and movements. in *Prameha* coating is observed on the *Jihwa*, it was seen that maximum patients have coating present whether it is thin, thick or patchy.

Keywords: *Jihwa*, *swedavaha Srotodushti Vikar*, *Prameha*, diabetes mellitus, Tongue examination, *Ashtavidha Pariksha*.

Introduction:

Acharya Charaka highlighted the critical importance of *Rogi Pariksha*, emphasizing that a thorough examination of the patient must precede any treatment, with the physician's work commencing only thereafter. According to the *Sushruta Samhita* and *Vagbhata*, *srotas* are likened to the very fine channels and pores found in a lotus stem. These channels facilitate the circulation of *rasadi* and *poshya dhatu* throughout the body,

delivering essential nutrition.^[3] *Acharya Yog-Ratnakara* introduced the concept of *Ashtavidha Pariksha*, an eightfold examination in Ayurveda, essential for identifying the various causes of diseases. This eightfold examination includes *Nadi* (Pulse), *Mootra* (Urine), *Malam* (Fecal matter), *Jihwa* (Tongue), *Shabdham* (Voice of patients), *Sparsham* (Touch), *Druk* (Eyes & Vision), and *Akriti* (General body build). Among these methods, *Jihwa Pariksha* is particularly significant in *Rogi*

Pariksha. Ayurveda regards the tongue as a map of the body, where each feature reflects a specific aspect of the body's constitution or imbalance. The appearance of the tongue, including its coating and color, serves as a diagnostic tool to understand the predominant imbalances within the body.

^[4]*Aacharya charak* has described that *sweda* is fraction of *udaka* which comes out through skin pores on exposure to heat. The quantity of *udaka* is 10 *Anjali Pramana*,^[5] and is distributed all over the body; it has different names as per location and function. Here *Acharya charak* is referring to the thermoregulation mechanism. When there is increase in body temperature on exposure to the heat or due to other reasons, the thermoregulatory mechanism operates to maintain the body temperature and sweating is the most important mechanism of body to lower down the temperature. Excretion of large quantity (during short interval of time) of turbid urine is called as *prameha*.

^[6]*Prameha* is also defined by the term "*Avila-Prabhuta- mutra*".^[7]*Prameha* is a term in Ayurveda that refers to a group of metabolic disorders, particularly those involving excessive urination. It is broadly categorized into different types based on the dominant dosha involved (*Vata*, *Pitta*, or *Kapha*). In the context of *Ayurveda*, the concept of "*Srotas*" refers to the body's channels or pathways through which various substances such as nutrients, waste, and *doshas* are transported. *Prameha*, often compared to diabetes mellitus in modern medicine, is characterized by abnormalities in the metabolic processes, leading to the impaired functioning of various systems in the body. Among the various

Srotas (body channels) described in Ayurveda, *Swedovaha Srotas* pertains to the channels responsible for the production and excretion of sweat.^[8] *Swedovaha Srotas* plays a crucial role in maintaining the body's homeostasis by regulating body temperature and aiding in the elimination of waste products through perspiration. When these channels are affected in *Prameha*, it results in an imbalance that can manifest in various symptoms and complications.

Need Of Study:

Prameha, as described in *Ayurveda*, encompasses a variety of metabolic disorders, which includes conditions analogous to diabetes mellitus (DM) in modern medicine. Diabetes mellitus is a chronic condition characterized by hyperglycemia due to defects in insulin secretion, insulin action, or both. The prevalence of DM is increasing globally, leading to significant health challenges, including cardiovascular diseases, neuropathy, nephropathy, and retinopathy. Early diagnosis and effective management are crucial in mitigating these complications. Diabetes mellitus often remains undiagnosed until significant complications arise. *Jihwa Pariksha* can serve as a non-invasive, cost-effective preliminary diagnostic tool, potentially identifying early signs of *Prameha*.

Tongue examination is a simple yet vital tool in determining the presence of *Ama* (toxins), the stages of *doshik* imbalance such as *Sama* (with toxins) and *Nirama* (without toxins) states, and the conditions of *Vridhhi* (aggravation) and *Kshaya* (depletion) of the *doshas*.^[9] It serves as a reflection of the body's digestive, nutritional, and metabolic status, providing insights into internal bodily

functions. Despite its significant role as an examination method in Ayurveda, tongue examination lacks robust scientific validation. However, in diagnosing conditions like *Prameha* (diabetes mellitus), tongue examination could prove to be highly effective. This study aims to investigate the changes in the tongue associated with *Prameha* (diabetes mellitus), contributing uniquely to the Ayurvedic literature and enhancing its diagnostic practices.

Aim & Objective:

- **Aim:** To conduct *Jihwa Pariksha* in patients of *Prameha* with special reference to diabetes Mellitus.
- **Objective:** To conduct and analyse changes in *Jihwa* manifested in patients of *Prameha* with special reference to diabetes Mellitus.

Materials & Methods:

1. Sources of data:

(A) Literary Sources –

- All Available *Ayurveda* Texts,
- All Available Modern Books,
- Reviewed Research Articles,
- Research Papers,
- Authenticated Internet Sources.

(B) Clinical Sources – Patients were taken from OPD & IPD from Parul Ayurved Hospital, Parul Sevashram Hospital, Khemdas Ayurved Hospital, Waghodia, Vadodara, Gujarat.

Subjective criteria: Classical *lakshanas* of *Prameha Vikaras* ^[10] were assessed.

Type of Study: Observational study.

Details of Clinical Study: An observational trial on 26 diagnosed patients of *Prameha* (diabetes mellitus) was conducted for a research study.

Data Collection: Separate case paper Performa had been prepared and observations were noted.

Study duration: 18 Months

IEC Certificate No: PU/PIA/IEC/07/2023/270

Inclusion Criteria:

1. Selection of patients were done irrespective of gender, socioeconomic status.
2. The diagnosed patients with *lakshan* of *Prameha* (diabetes mellitus) between the age of 18-60 years were included in this study.

Exclusion criteria:

1. Patient with local tongue infection and congenital anomalies were excluded.
2. Patients having major ailments of other systems.

Observation:

The study analyzed various tongue (*Jihwa*) characteristics in individuals with *Prameha*. The key observations are as follows:

1. Tongue Color:

- The majority of participants (92.30%) had a normal tongue color.
- Only 7.69% exhibited abnormal discoloration.

2. Tongue Coating:

- None of the participants had a completely uncoated tongue.
- A thin coating was observed in 38.46% of cases.
- Patchy and thick coatings were each noted in 30.76% of individuals.

3. Tongue Fissures:

- About 34.61% of individuals had no fissures on the tongue.
- Another 34.61% exhibited 1–3 fissures.
- Fissures ranging from 4–10 were found in 23.07% of cases.
- More than 10 fissures were observed in 7.69% of individuals.

4. Tongue Texture:

- More than half of the participants (53.84%) had a normal tongue texture.
- Mild roughness was reported in 42.30% of cases.
- A hard and irregular texture was found in only 3.84% of individuals.

Key Findings:

- The most noticeable variations in *Prameha* patients were observed in tongue coating, fissures, and texture.
- Thick and patchy coatings were common, indicating potential digestive imbalances.
- The presence of multiple fissures and mild roughness suggests possible metabolic disturbances.

- Tongue color remained unaffected in most individuals, showing no significant discoloration.

Discussion:

Age: In the present study it is observed that the greater number of patients were from age group 41-50 & 51-60 years. In this age maximum people follows the sedentary life. In this age group most patients were job and worker, life style, food habits and daily routine had involvement in producing diseases.

Gender: It was observed that maximum 55% of patients are Males and 45% patients are Female. The reason behind the male ratio high is affected by certain factors such as age, occupation, lifestyle, food habits etc.

Diet : It was observed that 58% of the patients were vegetarian. This might be due to the traditional vegetarian dietary habits and among these most of the patients were taking *Viruddha Ahara*, *Mamsahara*, *Ushna*, *Tiksha Ahara* etc. which aggravates *Pitta Dosha* and cause *Swedavaha Srotodushti*.

Addiction : 13.33% were having no any addiction, 72% had the addiction of tea, 14.66% had other addiction (smoking, alcohol, tobacco).

Appetite : It was observed that 39.33% had Poor Appetite, 54% had medium appetite, 6.66% had Excessive appetite out of 150(100%) patients in *Prameha*.

Deha Prakruti : In the Present study It is observed that Maximum number of patients were *Kapha Pradhana Tridosha Prakruti* cause for *Prameha Roga* in *Swedavaha Srotodushti* patients.

Changes On Jihwa in prameha:

Colour: Most of the patients have normal colour of tongue (pink) i.e. Out of total patients of Prameha 24(92.30%) had normal color of Jihwa, while 2(7.69%) had abnormal color of Jihwa.

Coating: Prameha being a *kapha pradhana tridoshaja vyadhi*, due to the *kapha pradhanta* and *Meda dhatu*; mentioned as the *moola sthana* of *swedavaha srotasa*, due to the *apakwaahara rasa* the *meda Dhatwagni* gets vitiated which ultimately results in the formation of *aama Utpatti* and this can lead to coating over the tongue.^[11] Most of coating in diabetic patients is usually a result of poor oral hygiene as food and bacteria accumulates on the dorsal aspect of tongue.

Coating : Changes On Jihwa In Prameha



Image A: of Thin coating



Image B: Thick coating with 4 to 10 fissures

Fissures: Maximum patients were found with multiple fissures in this disease. *Atiswedanama* was the common *lakshana* found in the patients of Prameha. *atiswedanama* is responsible for dryness of body which is due to the vitiation of *ruksha guna* of *vata*. This might lead to the presence of fissures on the tongue (*sphutita jihwa*) and mild rough texture of tongue.^[12]

Fissure : Changes On Jihwa In Prameha



Image A: More than 10 fissure



Image B: 4-10 fissure

Table No.1 : Distribution based on changes in Jihwa according to Prameha Roga

Sr. No	Prameha	Changes in Jihwa (Total = 26)		
1.		Color of Jihwa	f	%
		Normal	24	92.3%
		Abnormal	2	7.69%
2.		Coating on Jihwa	f	%
		No Coating	0	0
		Patchy Coating	8	30.76 %
		Thin Coating	10	38.46 %
		Thick Coating	8	30.76%
3.		Fissure on Jihwa	f	%
		No Fissure	9	34.61 %
		Fissures 1 3 in Number	9	34.61 %
		Fissure 4-10 in Number	6	23.07 %
		Fissures more than 10 in Number	2	7.69%
4		Texture on Jihwa	f	%
		Normal	14	53.84 %
		Mild Rough	11	42.30 %
		Hard irregular	1	3.84 %

Conclusion:

Statistically, in *Prameha* coating is observed on the *Jihwa*, it was seen that maximum patients have coating present whether it is thin, thick or patchy. From this study, it can be concluded that there is a significant relationship between *Prameha* Roga and changes in the *Jihwa*, both clinically and statistically. The presence of coating, fissure, and texture alterations on the *Jihwa* indicates a correlation with *Prameha* Roga. The coating on the *Jihwa*, attributed to the generation of *Mala Rupa Kapha* due to *Ama Rasa Dhatu* or *Rasvaha*

Srotodushti, along with *Vata* affliction, which may lead to fissures, supports this assertion. *Vata Dosh*'s *Rukshata* quality contributes to the drying of *Jihwa* moisture, resulting in a mild rough surface^[13] These findings underscore the significance of evaluating *Jihwa* changes in diagnosing and understanding *Prameha* Roga with special reference to Diabetes Mellitus.

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