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# JIHWAPAREEKSHA – A TRADITIONAL DIAGNOSTIC METHODOLOGY WITH CONTEMPORARY ADVANCEMENT

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#### **Abstract**

Ayurveda, the life science is mainly aimed at early diagnosis and aids in complete recovery from the disease by uprooting its root cause. The prime criteria for arriving at appropriate diagnosis are by thoroughly understanding the prakriti of that particular individual. Acharyas have explained various methodologies for a valid diagnosis of both prakriti and vikriti like Trividha, Ashtasthana and Dashavidhapareeksha. Jihwapareeksha is one among the Ashtasthanapareeksha, which is mainly based on the concept of Dharshana, Sparshana, and Prashna. Jihwapareeksha helps in diagnosing both the healthy and unhealthy states of an individual. Each part of jihwa represents each organ in the human body and any abnormality in that area represents the unhealthy state of that particular organ as per Chinese, Greek and Korean medicine. It was the most advanced mode of diagnosis in ancient era where there was no aid of imaging technologies. It also helps in early diagnosis of Ama, the root cause for almost all the vyadhis. The level of excellence in *Jihwapareeksha* started to decline gradually and nowadays *Jihwapareeksha* is meant for assessing the state of digestion alone. But nowadays, contemporary science has a curious eye on the methodology of tongue examination and they have started exploring its importance in clinical practice. This paper is mainly aimed to scout out the importance of Jihwapareeksha in VyadhiVinischaya or to help in finding out Vyavacchedakanidana of diseases and to explore the advancement of contemporary science in tongue examination to arrive at the proper diagnosis.

Keywords: Ashtasthanapareeksha, Ama, Chinese medicine, Body organs, Vyadhi Vinishchaya, Jihwapareeksha

#### **Introduction:**

Ayurveda, holistic medicine has got its worldwide importance by its nature of curing the disease from its root cause. This science has covered almost all the diseases and their treatment modalities under a single roof named Astanga Ayurveda.[1] Treatment modality can be best selected only after the proper diagnosis of the vyadhi and the vyadhi avastha.Rogamadhau pariksheth thada anatharam aushadham is the verse from the classical text that explains the importance of diagnosis before treatment.[2] In medical science diagnosing a disease plays a prime role. Treating a disease successfully wholly depends on the art of diagnosing the disease condition. There are various methods of diagnosing a disease according to various schools of thought. The concept of trisutra in ayurveda; hetu, linga and aushadha. Among these, two of the entities are related to diagnosis and aushadha alone is meant for the chikitsa. The term 'Pareeksha' is the ayurvedic version of depicting 'Diagnosis' in contemporary science. Pareeksha can be broadly divided as Roga pareeksha and Rogi pareeksha. Rogi pareeksha includes Nidhana panchaka and Roga pareeksha is the first step in chikitsa which includes various sets of pareeksha like Trividha pareeksha, Panchavidha pareeksha, Asta sthana pareeksha, Dasavida pareeksha, etc., Among these Asta sthana pareeksha is the methodology of diagnosing the vyadhi avastha. This includes the pareeksha of Nadi, Mala, Mutra, Jihwa, Sabdha, Sparsha, Drik and Akruthi. Among these Nadi pareeksha and Jihwa pareeksha takes a special place having reference in many ancient medicinal approaches in different demography. In this context, Jihwa pareeksha (Tongue diagnosing) is dealt in detail. Jihwa pareeksha, diagnosing the health and disease condition of the body by the examination of the tongue of an individual. The reference for this methodology of diagnosing is found in the ancient Indian classics and also worldwide in china, greek and Korean medicine.

## Jihwashareera and Tongue anatomy:

Jihwa is a Pratyanga (Minor organ) that emerge from the Kapha, Shonita, and Mamsa.<sup>[3]</sup> Jihwa is described as the Rasana Indriya, which aids in the perception of various tastes (Rasa) and Vakpravriti (Speech). Each Indriya (Sense organ) is made up of all five Mahabhutas (essential elements), namely AakashaMahabhuta (Space element), Vayu

Mahabhuta(Air element), Agni Mahabhuta (Fire element), Jala Mahabhuta (Water element), and Prithvi Mahabhuta (Earth element), having the dominance of any one mahabhuta. Jala Mahabhuta (Water element) aids in the perception of Rasa.[4] The Adhishtaana (location) of Rasana Indriya is Jihwa, and Rasa (taste) is the Indriyaartha (Sense object). Rasana IndriyaBuddhi (Rasa knowledge or information) of Rasana Indriya aids in the realization of taste.<sup>[5]</sup> The tongue (Lingua lingua; Glissa glossa) serves as a digestive organ by helping to swallow and promote food flow during mastication. Epithelium, muscles, and glands are the three components that make up the tongue. The epithelium is non-cornified and stratified. The papillae and taste buds are two unique features seen on it. The taste buds are the taste sense organs. Per taste bud, there are anywhere from 4 to 20 taste cells. These cells are in charge of detecting taste, which must be dissolved in saliva in order to be felt properly. These taste buds are found on the tongue's papillae in the following locations: (1) a large number of taste buds are found on the walls of troughs that surround the circumvallate papillae, which form a V line on the surface of the posterior tongue; (2) moderate numbers of taste buds are found on the fungiform papillae over the flat anterior surface of the tongue; and (3) moderate numbers are found on the foliate papillae located within the folds There are more taste buds on the palate, as well as a few on the tonsillar pillars, epiglottis, and even within the proximal oesophagus. Adults have 3000-10,000 taste buds, whereas toddlers have a few more. After 45 years of age, taste buds begin to fade. [6]

## Method of *pareeksha*:

The standard methodology of *Jihwapareeksha* is nowhere quoted in *Ayurveda* classics. Practically for the purpose of standardization certain rules are followed by a majority of the practitioners for examining the anterior two-thirds of the tongue.

1) *Jihwapareeksha* will be accurate if it is done in the early morning before brushing, if needed brushing the teeth can be done but the tongue shouldn't be cleaned before the examination. Habituation of early morning tea, coffee, or other beverages should be avoided on the day of tongue examination for accuracy (preferably empty stomach).

2) Tongue examination is to be done with the aid of sunlight (not under any artificial source).

These days tongue examination is only a part of bedside examination. So most the physicians developed the habit of doing the tongue examination randomly at any time without considering the above said criteria, that may lead to an inappropriate diagnosis; this may be a reason for the decline in the importance of *jihwapareeksha* in clinical perspective.

## Components of Jihwapareeksha:

Having a thorough knowledge of the *prakruthaavastha* (physiological state) is the base for understanding the *vikruthaavastha* (pathological state). This concept pays the way for understanding the methodology of *jihwapareeksha*. Knowledge about the physiological state of various components of *Jihwa* like *Varna*(colour), *Pramana* (measurement), *Akruthi* (texture or appearance), *Chalana* (movement), *Thala* (surface), and *Upalepa* (coatings) helps in understanding the healthy state of the tongue depicting a healthy human body according to the *prakruti* of an individual. Any abnormal change in these characteristics from its physiological state will be an indicator of pathology in the body.

## Age and Gender identification:

Men and women are beautiful artwork born from the magical hands of god. There are many characteristics making them unique in their own way. Many technologies have evolved these days for gender discrimination. Fingerprint-based gender determination is a newly evolved advancement. Likewise by a simple Lingual impression analysis (ie, the impression of the dorsal surface of the tongue is analyzed with its lateral borders) gender determination can be done. While coming across various types of tongue features, U-shaped tongue is more common among both men and women, but it is more prevalent in men, V-shaped tongue with a sharp tip is mostly observed in women. The fissures on the tongue also differ among both genders, males have multiple vertical fissures with a central shallow fissure but females have a central vertical and deep fissure when compared with males. According to *Ayurveda* classics age of an individual is classified into *Bala, Madhyama, and Jirna*, every organ in the body shows age-related changes, amongst them

the age-related changes of the tongue are given lesser importance. *Jihwa* also shows age-related changes that can be observed by the increasing thickness of fur on its dorsal surface, the physiology, and pathology of the fur thickness on the tongue can be determined by periodical examination.<sup>[7]</sup>

#### **Prakruti** determination:

Prakruti can be better termed as the blueprint of the characteristics of an individual. is the basic and most important criteria for understanding the Knowledge of characteristics of an individual; by this, an expert physician can even predict the nature of the diseases that an individual may become prone to in the future. In contemporary science, physiology is absolutely self-same for all human beings. Ayurveda is a science that finds its specialty in its individualistic approach, giving importance to both somatic and psychic physiology; termed as a prakruti. By doing Jihwapareeksha in the standardized methodology both the shareerika and manasikaprakruthi can be determined. As per classics vataprakruthi individuals have tongue features like sheeta, khara, sphrusta, ruksha, suska, chala and laghu, during tongue examination they will be very anxious and they will find difficult in protruding the tongue for examination; pitta prakruthi persons will have a tongue in raktha or shyama varna and they will extend out their tongue like an arrow during examination; kaphaprakruthi person's tongue will be Snigdha, Mrudhu, Sheetha, Slakshna, lipta, picchila and pandu varna; during examination they often will flop their tongue out of the mouth due to its larger size. These are the physiological variation among the individuals of different prakruthi. By a thorough understanding of the prakruthi; *vikruthi* can be easily determined.<sup>[8]</sup>

#### Vikruti determination:

Understanding of pathology purely pays the better way for an appropriate diagnosis. The main root cause for all the ailments is the imbalance in the physiological constitution of

*Vata*(Fig no 1), *Pitta*(Fig no 2) and *Kapha*(Fig no 3). Like any other ayurvedic diagnostic methodology *Jihwapareeksha* also can be done with the aid of *Trividapareeksha*.<sup>[9]</sup>

Dosha		Vata	Pitta	Kapha	Tridhosaja
Dharshana	Colour of the tongue	Paduta (Pale)	Rakta (Red)	Pandu(Pale)	Abnormal pinkish
	Colour of the tongue coating	Grey, Black or Brown	Orange, Red, Yellow or green	Thick, Whitish coating	Blackish
	Appearance	Small, Short, Thin, Dry, Cracked (Teeth marks) & Trembling.	Long, Narrow, Pointed, Inflamed, Ulcerated, Red small projections, Swollen, and Red edges.	Large, Swollen, Thick, Soft, Wet and with wet edges.	Like a burnt organ, Dry
Sparshana		Khara (Rough)	Inflamed	Swollen	Sakantak( Rough-)
Prashna		Kashayaasyata (Astringent taste)	Katukashyata (Pungent and Bitter)	Mukhamadhurya (Sweet)	Mixed taste.



Fig no 1: Vatadoshita jihwa lakshana



Fig no 2: Pitta doshita jihwa lakshana



Fig no 3: Kapha doshita jihwa lakshana

In case of *Manasikavikaras*, the dorsal surface of the tongue will be fissured and the person exhibits *Vataja* kind of *manasika lakshanas* like High Anxiety, Fear, and Insomnia (Fig no 4). *Ojo kshaya* can be interpreted as the cracked edges depressed at the ventral part of the tongue and an extremely short tongue may be a sign of low *ojas* in the *shareera* (Fig no 5).[10]



Fig no 4: Jihwadusti related to anxiety



Fig no:5 - Ojo kshaya

## Reflex Zones on the tongue:

Ayurveda literature clearly defines that for acquiring complete knowledge, the physician should have expertise in allied sciences as well. Chinese medicine explains the concept of reflexology as the relevant diagnostic technique. In this, the whole dorsal surface of the tongue can be mapped as the areas resembling various internal organs in the human body. It can be correlated with the organs situated in the place of shreerika doshas. For example, the *kapha sthana* organs like Heart and lungs are represented at the tip of the tongue; *pitta stana* organs like Stomach, Spleen, Liver, Gall bladder and Pancreas are reciprocated in the mid part and the *Vata sthana* organs like Intestines, Kidneys and Bladder are represented in the base of the tongue respectively. Any abnormalities in these parts of tongue represents the respective organ defect (Fig no 6).<sup>[11]</sup>

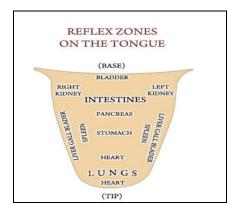


Fig no 6: Reflexology in tongue

## Arista lakshanas:

Arista Lakshana or so-called signs of death is a treasure in the Ayurvedic literature as by looking at that particular person, sign, sound, light, colour, or situation; disease worsening or even death can be predicted without the help of any other diagnostic modalities. Arista lakshanas concerned to Jihwa can be co-related with the appropriate modern medical conditions for a better understanding(Table no 1).<sup>[12,13]</sup>

No	Lakshana	Medical condition.
1	Stabdha	Stroke, Ischemic attack
2	Visarpini	Stroke, Brain injury
3	Nishchetana	Stoke
4	Guru, Shuna	Congestion of Heart
5	Brusham, Shyavam	Cyanosis
6	Kantakopacita	Hairy tongue
7	Shuska, Loss of taste	Covid-19

#### **Tongue Print:**

Contemporary science has developed a term named "TONGUE PRINT" and has identified that no two individuals have the same print on the tongue, similar to the concept of Fingerprint. On the basis of this theory, they developed advanced technologies using tongue print for the purpose of personalization. It is a unique bio-metric tool that cannot be forged easily. The term "biometrics" refers to a real-time identification system that uses a particular physical or behavioural trait to identify a person and compares it to a library of characteristics of many other people. To do this, a biometric scanning device (tongue-print scan) is used(Fig no 7), which records the user's biometric information (such as the tongue-print scan) and transforms it into digital data that the computer can understand and verify. This kind of identifying technique offers a better level of confidence. The information stored on the exposed part of the tongue, which combines the shape and texture, is known as the tongue print. The physiological surface texture of the tongue does

not change significantly, and its geometric form is often stable. In contrast to other identifying methods, the tongue may be easily exposed for inspection while still being well shielded from external factors, making it exceedingly difficult to alter or fabricate. According to research, identical twins' tongues are different from one another. The manual assessment always pays a way of being biased so contemporary science has been advanced in developing the Automated tongue diagnosing equipment for disease diagnosing and advanced to the extinct of developing even a mobile application for tongue diagnosis. [14,15]

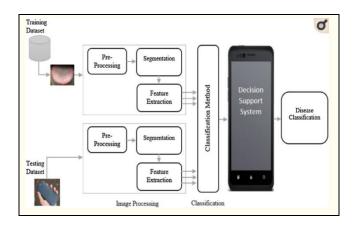


Fig no 7: Mobile application for tongue diagnosis

#### Discussion and conclusion:

Excelling in any diagnostic methodology depends on understanding the literature from its right point of view and regular clinical application. The traditional method of diagnosing was considered an age-old methodology and the trend lies on relaying the computer-aided diagnostic methodologies for an accurate diagnosis. While comparing the concept of reflexology and various *jihwadusti Lakshana*, the dusti or the abnormality concerned to the specific organ and the type of *dusti* involved can be easily diagnosed. For example reddish discolouration and swelling in the tip of the tongue indicate the Angina (Fig no 8) and yellowish discolouration observed in the right middle part of the tongue reveals the *pitta dusti* in the liver (Fig no 9). Repeated clinical application is must for reaching at the appropriate diagnosis. These are the decades where in *Ayurveda* mode of diagnosing is losing its importance and practical application among the *Ayurveda* physician but are tried to get standardized in this modern world as a part of scientific advancement. The modernization of the antique term "*Jihwa pareeksha*" to "Tongue diagnosis" is an apt

example. Standardizing is always a perfect way of scientific advancement but its utmost benefits can be gained only when it is done without throwing apart its antique literature methodologies.



Fig no:8 -Hrudaya vyadhi sambhandha jihwadhosa



Fig no: 9 – Yakruth dusti sambhandha jihwadhosa

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