

BASIC UNDERSTANDING OF *JIHWA PARIKSHA* (TONGUE EXAMINATION) IN DIFFERENT *DOSHA AVASTHAS* (STAGES OF *DOSHAS*)

Dr. Sandeep Kumar¹, Dr. Sachin Deva^{2*}

1. 2nd Year PG Scholar, PG & PhD Department of *Roga Nidana Evum Vikriti Vigyan*, Parul Institute of Ayurved, Parul University, Limda, Vadodara, Gujarat - 391760, India
2. Reader, PG & PhD Department of *Roga Nidana Evum Vikriti Vigyan*, Parul Institute of Ayurved, Parul University, Limda, Vadodara, Gujarat - 391760, India

Abstract:

In Ayurveda, Pariksha means viewing or examining from all sides and aspects. The aim of Pariksha is "Pratipattigyanam"¹(Proper knowledge). Giving importance to Pariksha it is clearly mentioned in classical texts that patient should be examined before planning any kind of treatment.² Rogi Pariksha (Examination of Patient) and Roga Pariksha (Assessment of Disease) together complete the protocol of a comprehensive clinical examination.

The examination of the patient is conducted for the knowledge of lifespan and for the evaluation of strength of Dosha (Body humors) and body.³ There are several methods of examinations which has been explained in Ayurvedic classics, which are helpful in diagnosis of a disease, estimating the status of Rogibala and Rogabala. Among all these methods Ashtasthana Pariksha (eight fold examination) has its own significance. In Ashtasthana Pariksha there are eight factors which are taken into consideration during the examination i.e. Nadi (Pulse), Mootra (Urine), Malam (Fecal matter), Jihwa (Tongue), Sabdam (Voice of patients), Sparsham (Touch), Druk (Eyes & Vision) & Akriti (General body build)⁴. Jihwa Pariskha is one of the important part of Ashtasthana Pariksha and plays an vital role in diagnosis of the disease. According to Ayurveda, the presence of disease in our system indicates an imbalance in our Doshas and this imbalance can be seen on Jihwa and with the help of Jihwa Pariksha. In this article an attempt has been made to focus on Jihwa Pariksha.

Keywords: *Jihwa, Tongue, Pariksha, Examination, Ashtasthana.*

*Corresponding Author:

Dr. Sachin Deva

Reader, PG & PhD Department of *Roga Nidana Evum Vikriti Vigyan*,
Parul Institute of Ayurved,
Parul University, Limda, Vadodara, Gujarat - 391760, India.

Introduction

In Ayurveda, clinical examination is used to determine the root cause of the disease and to determine the treatment selection. The presence of disease in our system indicates an imbalance in Doshas. In Ayurvedic literature they have mentioned various effective diagnostic tools. Ashtasthana Pariksha is one of them and the other important tools mentioned are:

- *Trividha Pariksha* (Three fold examination) which includes three diagnostic methods i.e inspection, interrogation and palpation⁵.

- *Chaturvidha Pariksha* (Four fold examination) which includes *Pratyaksha* (Direct observation), *Anumana* (Inferential), *Aptopadesa* (Authoritative instruction) and *Yukti* (Experimental evidence)²¹.
- *Shadvidha Pariksha* (Six fold examination) means examination with five sense organs and *Prasna* (History taking)⁶.
- *Dasavidha Pariksha* (Ten fold examination) which includes *Prakrti* (Identification of constitution), *Vikrti* (Pathologic factors), *Sara* (Examination of essence of *Dhatu*s), *Samhanana* (Examination of compactness of body organs), *Pramana* (Examination of measurement of body organs), *Satmya* (Examination of homologation), *Satva* (Examination of mental faculties), *Ahara Sakti* (Examination of power of assimilation), *Vyayama Sakti* (Examination of power of exercise) and *Vaya* (Examination of age)⁷.

The amalgamation of *Trivida Pariksha* (Three fold examination) with *Jihwa Pariksha* (Tongue examination) which is one of the important diagnostic method mentioned under *Ashtasthana Pariksha* can give us a better understanding about the disease state. *Jihwa Pariksha* is one of the prime tool in assessing status of digestion. According to *Ayurveda*, *Agnimandya* (malfunctioning of digestive fire) is the root cause of all diseases. The *Mandagni* (decreased functioning of the digestive fire) causes the improper digestion of the food and leads to the formation of *Ama* (Toxins from undigested food). This *Ama* is mixed with the *Dosha* and affects body tissues (*Dhatu*s), thus vitiating/altering their qualities and leading to all kinds of pathological processes. Inspection of the tongue coating in the early stages is useful to diagnose an impairment of digestive fire and an early intervention may prevent the further development of *Ama*⁸. Thus *Jihwa Pariksha* can provide significant information for diagnosis in the clinical practice.

Basic Rachana and Kriya of Jihwa

Jihwa is a *Pratyanga*⁹ (Minor organ) and originates from *Kapha*, *Shonita* and *Mamsa*¹⁰. *Jihwa* is mentioned under *Rasana Indriya* which helps in perceiving different types of taste (*Rasa*) and *Vakpravriti* (Speech). Each *Indriya* (Sense organ) are formed by all *Mahabhutas* (Five essential elements) i.e *Aakash Mahabhuta* (Space element), *Vayu Mahabhuta* (Air element), *Agni Mahabhuta* (Fire element), *Jala Mahabhuta* (Water element) and *Prithvi Mahabhuta* (Earth element) but will be predominant in only one and in this process *Jala Mahabhuta* (Water element) helps in the formation of *Rasana Indriya*. *Jihwa* is mentioned as the *Adhishtaana* (site) of *Rasana Indriya* and *Rasa* (taste) is the *Indriyaartha* (Sense object). *Rasana Indriya Buddhi* (Knowledge or information of *Rasa*) embedded in *Rasana Indriya* helps to realize the taste¹¹.

Tongue is formed from three elements; epithelium, muscles and glands. The epithelium is stratified and non cornified. Two types of special structures are seen on it; the papillae and the taste buds. The taste buds are the sense organs of taste. The taste cells vary from 4-20 per taste bud. These cells are responsible for detection of taste which is to be dissolved in saliva for proper sensation¹².

These taste buds are found on papillae of the tongue, as follows : (1) a large number of taste buds are 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 on the fungiform papillae over the flat anterior surface of the tongue and (3) moderate numbers are on the foliate papillae located within the folds along the lateral surfaces of the tongue. Additional taste buds are located on the palate, and a couple of are found on the tonsillar pillars, on the epiglottis and even within the proximal esophagus. Adults have 3000-10,000 taste buds, and children have a few more, Beyond the age of 45 years, many taste buds degenerate, causing taste sensitivity to decrease in old age¹³.

Jihwa Pariksha (Tongue examination)

In *Ayurveda*, the presence of disease indicates an imbalance in *Doshas* and this imbalance can be appreciated in *Jihwa* (as shown in Table 1) as mentioned that if tongue is affected by *Vata* it will be cold

(*Sheeta*), rough (*Khara*) and fissured (*Sphutita*), if by *Pitta* it looks red or blackish in colour (*Rakta & Shyam Varna*) and if by *Kapha* it is coated (*Lipta*), and excessively greasy (*Atipichhila*) and white in colour (*Shweta*), If there is involvement of *Tridosha* it appears like a burnt organ, black in colour (*Krishna*), dry (*Shushka*) and very much rough on touch (*Sakantak*), If two *Doshas* are involved characters follow them^{14,15} and with the help of *Jihwa Pariksha* physician can detect the imbalance in the body and prescribe an effective treatment.

Table 1 : Tongue features in various *Doshas*

<i>Dosha</i>	Tongue Appearance
<i>Vata</i>	Cold , rough and fissured tongue
<i>Pitta</i>	Red or blackish in colour
<i>Kapha</i>	Coated, excessively greasy and white in colour
<i>Tridosha</i>	Black in colour, dry, very much rough on touch
<i>Dvandvaja</i>	Mixed features of doshas involved

When *Jihwa Pariksha* is to be done ?

The appropriate time for *Jihwa* is not mentioned clearly in *Ayurvedic* texts but by taking reference of *Nadi* (Pulse) *Pariksha* and *Mutra* (Urine) *Pariksha*, we can decide morning hours as an ideal time for *Jihwa Pariksha*. Few important things which should be followed before examination of tongue are¹⁶:

1. Tongue examination should be done empty stomach before breakfast.
2. It should be done before brushing as this would disturb the tongue coating.
3. Avoid coffee, tea & sweets before the inspection, do not allow to eat or drink anything that might stain the tongue.
4. It should be examined under good source of light, preferably sunlight.

Criteria for Healthy Tongue

A healthy tongue should look like a children tongue: symmetric and evenly pink, should be supple, free of cracks and not quiver or tremble. It should be slightly moist. It is neither too thick nor too thin, and oval in shape. When the tongue is protruding, it's naturally straight instead of curving to atleast of one side. It should remain still, not trembling, flaccid, and flat-tipped or stiff. It should have a skinny, transparent coating, colouring the tongue pink. All the taste buds are flat, orderly and free from strawberry-looking bumps, deep cuts, lines, cracks and patches. It should not have foam, hair, fur, be too dry or too wet or have a foul odour or taste; a healthy tongue should have some coating¹⁷.

Reflex Zones on the Tongue

Chinese Medicine and Greek Medicine consider that various regions or zones of tongue (as shown in Fig.1) connected with different internal organs of the body. Through centuries of clinical practice and experience, the holistic physician of Greek Medicine and other traditional healing systems have mapped out various reflex zones on the tongue. The core organs of the chest cavity, are represented on the anterior section of

the tongue, towards the tip. These organs are principally the heart and lungs, with the heart at the very tip and therefore the lungs more posteriorly. The core organs located in the epigastric/ right hypogastric region of the abdominal cavity are represented in the middle section of the tongue, about midway between the base or root of the tongue and its tip. These organs are principally the liver and gall bladder and therefore the stomach, located within the very center of the tongue. The spleen areas lie lateral to the stomach zone, but inside or medial to the liver/gall bladder areas. The pancreas area lies on the tongue's midline, just slightly posterior to the stomach zone. The excretory organs of the pelvic region are represented on the posterior section of the tongue, towards the root or base. The kidney zones are located on the proper right and left sides of the tongue's base. The intestines are represented on the central posterior region of the tongue, just behind the stomach and pancreas. The bladder zone is at the very base of the tongue, right the midline. Different areas of the tongue correspond to different organs of the body¹⁸. Hence by correlating the site of the blemishes on the tongue, the Ayurvedic practitioner can determine which organs of the body are out of balance.

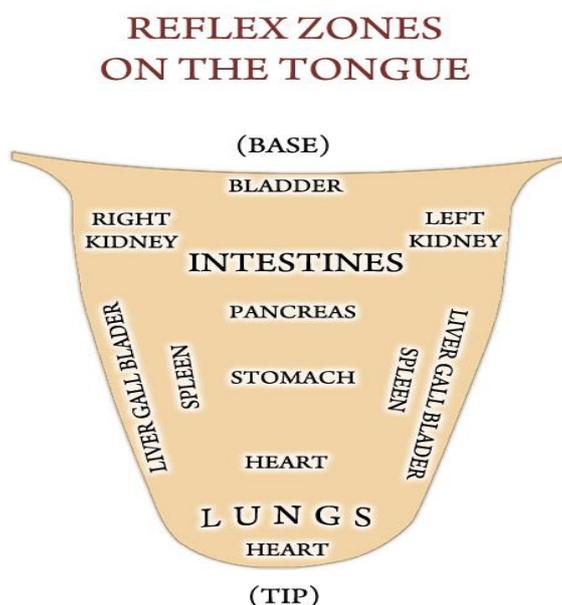


Fig 1: Reflex Zones on the Tongue¹⁸

Tongue Examination by *Darshan Pariksha* (Inspection)

Tongue Coating

The conventional way for tongue diagnosis, including the evaluation of the tongue coating, is to seem at the tongue (from tip-to-root) directly by observers. If the tongue has any kind of coating thereon, this is a often a really a clear indication of toxic build-up within the system and poor overall digestion. The most common area where coating is usually found is on the rear of the tongue, revealing that the toxic build-up is within the colon area. If you see a coating on a special area of the tongue, then which may indicate toxic build-up within the corresponding organ. If the entire tongue is coated, this indicates systemic toxins, meaning the toxins are in the bloodstream and invading the entire body¹⁹.

Certain oral infections, notably *Candida* infections (known as oral thrush), are characterized by a white tongue. These yeast infections could also be seen in many circumstances but are common in people with immune suppression because of conditions like cancer or HIV infection. Inflammation and whitening of

the tongue can also occur due to dryness or environmental irritants like smoking or other tobacco use, and will be associated with the bad breath. Some white patches on the tongue, known as leukoplakia, can be precancerous lesions²⁰.

Oral lichen planus on the tongue may be chronic inflammatory condition caused by an autoimmune response. It is characterized by a white lace-like pattern called reticular lichen planus. Hairy leukoplakia may be a white patch on the side of the tongue that appears hairy or rough. This condition is caused by the Epstein-Barr virus and is usually related to immune compromised individuals²¹.

Colour of Tongue Coating

You can look at the colour of the coating which will reveal the *Doshic* imbalance that are involved. If the coating is grey, black, or brown, you can assume *Vata* derangement ; if the coating is orange, reddish, yellow, or green, this indicates *Pitta* derangement; and finally, if there is a thick, whitish coating, you can think *Kapha* derangement. This can be quite helpful as each toxin should be treated differently depending on which *Dosha* is involved¹⁹.

***Doshic* Tongue Colour**

Vata individuals having pale tongue reflects poor nutrient metabolism because of low nutrient absorption or blood deficiency. A purple-blue tongue reflects stagnation of circulating *Vyana Vayu* from cold²². Pale tongue is seen in severe anaemia²³.

Pitta individuals are having red, reflecting high *Pitta* in absorbed nutrient or blood. An orange tongue (especially sides) is due to high *Pitta*. A purple-red (in extreme causes black-red) is expected to high *Pitta* condensing absorbed nutrient and blood resulting in viscous and sluggish circulation²².

Some red colour changes on the tongue ("strawberry tongue") could be related to a vitamin deficiency, Kawasaki disease, or a streptococcal infection (scarlet fever)²¹. Geographic tongue (benign migratory glossitis) is an asymptomatic inflammatory condition with rapid loss and regrowth of filiform papillae, leading to appearance of denuded red patches across the surface of tongue²⁴.

Kapha individuals have pale tongue because of the cold that restricts circulation. A pale-blue colour tongue indicates congestive heart disorders due to aggravated *Avalambaka Kapha*²².

Tongue Fissure

Fissured tongue is believed to be a normal variant in fewer than 10% of the population and perhaps genetically oriented²⁵. The appearance of multiple small cracks everywhere the tongue may be of a robust indicator of a strong chronic *Vata* derangement like high anxiety, fear, insomnia and possibly a nervous system disorder. If the cracks are only located on one area of the tongue, this might reveal chronic high *Vata* therein that correlating organ¹⁹.

Melkersson-Rosenthal syndrome is a rare condition. It not only causes a fissured tongue, but also lip or facial swelling and paralysis within the face (Bell's palsy) which will come and go. Fissured tongue occurs in as many as 80% of children with the chromosomal disorder Down syndrome²⁶.

Tongue Margins

If there are teeth marks or indentations along the margins of the tongue, it is a sign of chronic malabsorption. Some of these include poor digestion, inflammation in the GI tract, excessive toxins in the colon, intake of allergenic foods, chronic loose stools, or parasitological infection¹⁹.

Tongue Shape

Vata individuals have small, short, thin, dry, cracked, and trembling. Indentations, sunken concave spots, scalloped and teeth mark indicating mal-absorption and low *Agni* (digestive fire) due to the erratic digestive power of *Visamagni* (Imbalance digestive fire). Cracked edges depressed at the back of the tongue showing low *Ojas* (Vital energy). Broken in the front indicates lung dryness. *Vata* individuals are often anxious and difficult to protrude their tongue. The extremely short tongue may be a sign of low *Ojas*. It reflects the dry, rough, mobile, light, and deficient qualities of *Vata*²².

Pitta individuals have long, narrow, pointed, inflamed, ulcerated, red small projections, swollen, and red edges. *Pitta* individuals often extend their tongue with force like an arrow. It reflects the sharp, penetrating, liquid, and hot qualities of *Pitta*²².

Kapha individuals have large, swollen, thick, soft, wet, and wet edges. Tongue with teeth marks indicating *Mandagni*. The swollen tip indicates heart congestion. Swollen in the center suggests lung congestion. The *Kapha* individuals often flop their tongue out of the mouth though it is over large. It reflects the unctuous, fluid, soft, slimy, smooth, and cold qualities of *Kapha*²².

Macroglossia may be part of a syndrome found in developmental conditions such as Down's syndrome; may be due to tumor (hemangioma or lymphangioma), metabolic disease (such as primary amyloidosis) or endocrine disturbance (such as acromegaly or cretinism)²⁴.

Sparshan Pariksha of Tongue (Examination by Touch)

Use a bidigital technique to palpate the entire tongue between the finger and thumb of one hand. The tissue of tongue should feel soft and resilient with no palpable indurations or masses. Atypical findings on the tongue are common. They include fissuring, scalloping, benign migratory glossitis and enlarged papillae. If tongue is affected by *Vata* it will be *Khara* (Rough) and involvement of *Tridosha* result in *Sakantak* tongue (very much rough on touch) .

Examination of Tongue by Prashna Pariksha (Questioning)

This is also an important part of tongue examination. By questioning physician can get knowledge about the feeling of abnormal taste by the patient and this will guide the physician to decide that which particular *Dosha* vitiation is there. *Katukasyata* (Pungent and bitter taste) sensation of tongue is suggestive of *Pitta Dosha* aggravation and similarly *Mukhamadhuryam* (sweetness of mouth) found in *Kapha Dosha* aggravation and *Kasayasyata* (astringent taste or loss of taste of mouth) in *Vata dosha* aggravation as mentioned in *Jvara Lakshana* in *Charaka Samhita*²⁷.

Disorder of the sense of taste are caused by conditions that interfere with the access of the tastant to the receptor cells in the taste buds (transport loss), injure receptor cells (sensory loss), or damage gustatory afferent nerves and central gustatory pathways (neural loss).

Transport gustatory losses result from xerostomia due to many causes, including Sjogren syndrome, heavy metal intoxication and bacterial colonization of taste pore.

Sensory gustatory losses are caused by inflammatory and degenerative diseases within the mouth, a huge number of medicine, particularly those that interfere with cell turnover like antithyroid and antineoplastic

agents, radiotherapy to the oral cavity and pharynx, viral infections, endocrine disorders, neoplasms and aging.

Neural gustatory losses occur with neoplasm, trauma and operations in which gustatory afferents are injured. Taste buds degenerate when their gustatory afferents are transected²⁸.

Disturbance of the sense of taste may be categorized by either the patient's complaint or the objective sensory measurement as total ageusia – inability to detect the qualities of sweet, salt, bitter or sour.

Partial ageusia – ability to detect a number of but not all the qualitative gustatory sensations.

Specific ageusia – inability to detect the taste quality of certain substances.

Total hypogeusia – decreased sensitivity to all tastants.

Dysgeusia – distortion in the perception of a tastant, i.e the perception of the wrong quality when a tastant is presented or the perception of a taste when there has been no tastant ingested²⁸.

Tongue Related Arishta Lakshanas (Fatal Signs and Symptoms)

Arishta Lakshanas are elaborated in *Indriyasthanas* of *Charaka Samhita*^{29,30}.

- *Stabdha* (Tongue becomes hard and rigid).
- *Nishcetana* (It becomes insensitive to touch or and type of tastes).
- *Gurvi* (Heaviness in tongue).
- *Kantakopacita* (Tongue is covered by thorn like eruptions).
- *Bhrusham Shyava* (Bluish black in colour).
- *Shushka* (Dry or inflamed).
- *Shuna* (Swollen) and *Visarpini* (constantly mobile).
- Even in the absence of *Mukhapaka* (stomatitis), if person fails to perceive the taste sensation or has a wrong gustatory perception indicates *Arishta*.

Conclusion

A comprehensive clinical examination is the basis for diagnosis and planning a proper treatment protocol. *Rogi Pariksha* and *Roga Pariksha* together would complete the protocol of a clinical examination. There are many ways to conduct *Roga-Rogi Pariksha* which are useful in observing the characteristics of various *Dosha responsible for formation of vyadhi* to evaluate their proportionate imbalance. *Ashtasthanas Pariksha* is one of the important method mentioned for *Rogi Pariksha* and has its own significance. In this eight fold examination, *Jihwa Pariksha* is one of the important examination tool mentioned in *Ayurvedic* literature. Proper knowledge of tongue examination along with clinical findings can give better understanding of *Roga Samprapti* (Pathogenesis). Tongue may be a reflection of what is happening inside the body. A careful observation of the state of tongue gives an insight into the health condition of the patient. Disease or unhealthy parts of the body could be identified by looking for the symptoms in different parts of tongue. Currently not much importance is given for examination of tongue in diagnosing various diseases . So this article attempts to highlight the importance of understanding and applying *Jihwa Pariksha* in *Vyadhi Vinishya* or at least helping for *Vyachedaka Nidana* (Probable diagnosis) so that earlier diagnosis and easier management can be established.

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