

## “JIVHA PARIKSHAN” (TONGUE EXAMINATION) - AYURVEDIC AND MODERN APPROACH

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### ABSTRACT

The tongue is a muscular organ in the mouth of most vertebrates that manipulates food for mastication and is used in the act of swallowing. Tongue examination is mentioned as *Jivha parikshan* in *Ayurveda*. Detail study of tongue examination is necessary, as it is the mirror of digestive system and various diseases. *Jivha parikshan* has been classified as *Vataja*, *Pittaja*, *Kaphaja* and *sannipataja* in *Yogaratanakara*. Also in *Ashthavidha parikshan* the importance of *Jivha parikshan* is explained. Various *Jivhagata rogas* are explained by *Sushruta*, *Vagbhata*. While in modern science geographic tongue,

black tongue, hairy tongue, scarlet red tongue etc have been explained. Tongue is the mirror of digestive system and various diseases. Considering importance of *jivha parikshan* in various diseases, this article throws light on *jivhagata rogas* and clinical findings in tongue pathology from modern aspect making it more easier to reach the diagnosis of disease with modern and *Ayurvedic* view.

**KEYWORDS:** Tongue examination, *Jivha parikshan*, *Jivhagata rogas*, *Ayurveda*, Modern.

### INTRODUCTION

Tongue is a muscular organ in the mouth of most vertebrates that manipulates food for mastication and is used in the act of swallowing. It is of importance in the digestive system and is the primary organ of taste in the gustatory system. Patients frequently present complaining of tongue abnormalities. Knowledge of normal tongue anatomy and architecture will enable the clinician to differentiate variations of normal from abnormal conditions. Importance of tongue examination is elaborated in *Ayurveda* in *jivha parikshan*. *Jivha*

*parikshan* is important because diagnosis of disease is done with the help of *jivha parikshan*. In *Yogaratanakara*, *jivha parikshan* has been included in *Ashtavidha pariksha* and is classified as *Vataja*, *Pittaja*, *Kaphaja* and *sannipataja* in the chp. *Kaaladnyanam*.<sup>[1]</sup> Also in *Ashtavidha parikshan* the importance of *jivha parikshan*<sup>[2]</sup> is explained by *Yogaratanakara*. Whereas detail study of various diseases has been done in *jivhagata rogas* where *Sushruta* has mentioned 5 types of *jivhagata rogas*<sup>[3]</sup> in *Nidanasthan* chp. 16. Whereas *Vagbhata* has mentioned 6 types of *jivhagata rogas*<sup>[4]</sup> in *Uttarasthan* chp. 21. *Charaka* has explained about natural height, length, texture of tongue in chp.8 of *Sharirasthana*.<sup>[5]</sup> In modern science various abnormalities of tongue are mentioned. Many tongue conditions are benign and require reassurance and explanation, with little to no treatment. Others can signify systemic disorders. Therefore, examination of tongue is an integral part of a complete physical examination and for easy diagnosis of the disease. Thus *Ayurvedic* and modern view together is necessary in tongue examination to reach the proper diagnosis of disease.

## OBJECTIVES

- To study tongue examination.
- To study *Jivha parikshan* included in *Ayurveda*.
- To study *Jivhagata rogas* included in *Ayurveda*.
- Clinical findings in tongue pathology according to modern.
- Holistic approach to reach the proper diagnosis.

## MATERIALS AND METHODS

Textual references are from *Ayurvedic* classics i.e *Charak Samhita*, *Sushruta Samhita*, *Ashtang Hridaya*, *Yogaratanakara*. Modern texts, journals and websites are also referred and logical analysis will be done.

## Review of literature

Tongue examination

In *Ayurveda* tongue examination is done on the basis of *saam*(coated) and *niraam*(uncoated) *jivha*. According to *Yogaratanakara*, on the basis of *doshas* it has been classified as *Vataja*, *Pittaja*, *Kaphaja*, and *Sannipataja*.

Whereas according to modern text<sup>[6]</sup> it is done as follows.

- The tongue examination reflects a number of underlying diagnoses such as infections, nutritional deficiencies, malignancy and even neurological dysfunction.

- On physical examination, there are several characteristics of the tongue that should be noted.
- Colour: Pink red on dorsal and ventral surface. The ventral surface may have some visible vasculature.
- Texture: Rough dorsal surface owing to papillae, which have three types. There should be no hairs, furrows or ulcerations.
- Size: should fit comfortably in mouth, tip against lowest incisors. Sublingual glands should not be displaced.

General examination of tongue should occur in following steps.

1. Have the patient touch the tip of the tongue to the roof of the mouth and inspect the ventral surface.
2. Have the patient protrude the tongue straight out and inspect for deviation, colour, texture and masses.
3. With gloved hands, hold the tongue with gauze in one hand while palpating the tongue between thumb and index finger of the other, noting the masses and areas of tenderness.

To study *Jivha parikshan* included in *Ayurveda*

In *Ashtavidha pariksha* patient is observed by observing the eight components- In diseased person, observation of *Nadi*, *Mootra*(urine), *Purisha*(stool), *Jivha*(tongue), *Shabd*(speech), *Sparsh*(touch), *drushti*(vision) and *Aakruti*(body structure) i.e observation and examination of these eight components is necessary. So the importance of *jivha parikshan* is important from diagnosis point of view.

### ***Jivha pariksha***

<b>Sr. No.</b>	<b><i>Yogaratanakara</i><sup>[7]</sup></b>	<b>Appearance</b>
1	<i>Vataja</i>	Rough, cold and torn
2	<i>Pittaja</i>	Red and blackish
3	<i>Kaphaja</i>	Whitish and jelly like
4	<i>Sannipataja</i>	Black, thorny and shrunken

*Yogaratanakar* has mentioned *jivha parikshan* according to *doshas*

1. *Vataja* - Due to vitiation of *vata dosha*, the appearance of tongue is rough, cold and torned.
2. *Pittaja* - Due to vitiation of *pitta dosha*, the appearance of tongue is reddish and blackish.

3. *Kaphaja* - Due to vitiation of *kapha dosha*, the appearance of tongue is whitish and jelly like.
4. *Sannipataja* - Due to vitiation of all 3 *doshas*, the appearance of tongue is blackish, thorny and shrunken.

### *Jivhagata rogas*

Sr.No.	<i>Sushruta</i> <sup>[8]</sup>	<i>Vagbhata</i> <sup>[9]</sup>	Modern term
1	<i>Vatik jivhakantaka</i>	<i>Vatik jivhakantaka</i>	Fissured tongue
2	<i>Paitik jivhakantaka</i>	<i>Paitik jivhakantaka</i>	Benign migratory glossitis/ geographic tongue
3	<i>Shleshmik jivhakantaka</i>	<i>Shleshmik jivhakantaka</i>	Hairy tongue
4	<i>Alaas</i> (non-curable)	<i>Alaas</i> (curable)	Carcinoma of oral tongue/floor of mouth stage 3 or 4
5	<i>Upajivhika</i>	<i>Upajivhika</i>	Mild inflammatory condition Lingual tonsillitis and its abscess
6		<i>Adhijivhika</i>	Ranula/ sublingual dermoid

- 1) *Vatik jivhakantaka* - tongue appears fissured, rough and there is loss of taste sensation.
- 2) *Paitik jivhakantaka* - tongue appears yellowish, burning, and there is reddish regrowth of filiform papillae.
- 3) *Shleshmik jivhakantaka* - appearance of tongue is like *shalmali* (thorny plant), elongation of filiform papillae and appears thick and heavy.
- 4) *Alaas* - indurated inflammation appears on the floor of the tongue causing stiffness of tongue and then inflammation occurs at the tip of the tongue.
- 5) *Upajivhika* - inflammation occurs at the tip of tongue, so tongue appears to be pulled up anteriorly. Itching, burning sensation etc is observed.
- 6) *Adhijivhika* – inflammation occurs at the root of the tongue, the tongue appears rough due to inflammation. There are symptoms like itching sensation, pain, salivation etc. Due to stiffness of tongue there is difficulty in swallowing and speaking.

### Clinical findings in tongue pathology<sup>[10]</sup>

- 1) Median rhomboid glossitis - it is red due to depapillation of rhomboid area at the centre of the dorsum of the tongue associated candidiasis. It is marker of immune deficiency disorders
- 2) Bald tongue (ironed out tongue) - it is due to the diffuse atrophy of the papillae. It is commonly seen in pellagra, xerostomia and iron/B12 deficiency disorders.
- 3) Tongue in neurology – fasciculation (fibrillation) within the tongue when lying in oral cavity is a feature of motor neuron disease and also occurs in syringomyelia. Wasting of

half of the tongue is due to hypoglossal nerve palsy and it deviates to the same side on protrusion. Myotomia can be better demonstrated in the tongue in myotonic dystrophy. Spastic tongue is due to pseudobulbar palsy.

- 4) Pallor of tongue - polycythemia, riboflavin deficiency.
- 5) Black tongue - melanoglossia, bismuth, iron, antibiotics like penicillin.
- 6) Slate blue tongue - haemochromatosis.
- 7) Abnormal pigmentation - brownish black tongue, Addison's disease, Nelson's syndrome, Peutz-Jeghers syndrome, chronic cachexia, malnutrition.
- 8) Dryness of tongue - dehydration, haemorrhage, mouth breathing, uraemia, coma, atropine/belladonna, Sjogren's syndrome.
- 9) Ulcers.
  - i) Single - tuberculosis, carcinoma, syphilis, dental irritation.
  - ii) Multiple - Aphthous ulcers, herpes, secondary syphilis, pemphigus, chickenpox, vitamin B deficiency.
  - iii) Recurrent - Aphthous ulcers, SLE, coeliac disease, Behcet's syndrome, Lichen planus, pemphigus, neutropenia.
- 10) Fissured tongue (scrotal) - Down's syndrome, Vitamin B deficiency, acromegaly, congenital malformation.
- 11) Geographic tongue - asymptomatic inflammatory condition with rapid loss and regrowth of filiform papillae leading to denuded red patches 'wandering' across the surface of the tongue - no clinical significance.
- 12) Hairy leukoplakia - it is caused by EB virus and is typically seen in the lateral margin of the tongue and is diagnostic of AIDS.
- 13) Hairy tongue - formation of keratin layer prior to desquamation can result in elongation of filiform papillae over the medial dorsal surface of the tongue.
- 14) Macroglossia - Down's syndrome, acromegaly, myxoedema, amyloidosis, angioedema, tumours.
- 15) Microglossia - pseudobulbar palsy, facial hemiatrophy, marked dehydration, starvation.
- 16) Colour.
  - i) blue tongue - central cyanosis.
  - ii) brown tongue - uraemia, acute liver necrosis.
  - iii) white tongue – centrally coated (enteric fever)
  - iv) scarlet red tongue - niacin deficiency
  - v) dark red tongue

17) Lingual cancer - lingual cancer is the second most-common head and neck cancer, after that of the labia. Tobacco and alcohol use are both major risk factors. The patient will often present with a painful mass in the tongue or a non-healing ulcer. There may be a history of leukoplakia, dysphagia, or dysarthria. Physical exam may reveal a tender lump in the tongue on palpation, however physical examination may not reveal anything if the mass is toward the posterior end of the tongue. A proper work up, which may include final needle aspiration of the mass, is necessary for diagnosis.

## DISCUSSION

Tongue diagnosis is an essential process to non-invasively assess the condition of per internal organs in traditional medicine. Tongue is an important starting point in the clinical examination to understand the health. In *Ayurveda* tongue examination is done on the basis of *saam* (coated tongue) and *niraam* (uncoated tongue). Whenever there are some problems related to digestion and also in diseased person coated tongue is observed. *Yogaratanakara* has also done tongue examination on the basis of *doshas* as *vataja*, *pittaja*, *kaphaja* and *sannipataja*. But only by observing coated and uncoated tongue, we cannot reach the proper diagnosis. So a complete study of *Ayurvedic* as well as modern concept of tongue examination is necessary for proper diagnosis. Hence, *Ayurvedic* and modern concept of tongue examination as well as clinical findings in tongue pathology will help us in proper diagnosis of the disease.

## CONCLUSION

Tongue examination as *jivha parikshan* is given importance. Proper knowledge of tongue examination along with clinical findings in tongue pathology as well as knowledge of *jivhagata rogas* is important. *Yogaratanakara* has done *jivha parikshan* on the basis of *doshas*. *Sushruta* has described 5 types of *jivhagata rogas* and *Vagbhata* has described 6 types of *jivhagata rogas*. Various researches are done on tongue examination and its clinical findings, the only step remaining is to study tongue examination along with clinical findings in tongue disease with holistic approach of *Ayurveda* and modern to serve mankind.

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