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THE TONGUE'S TESTIMONY: A COMPREHENSIVE STUDY OF *JIHVA PARIKSHA* IN *AYURVEDA*

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ABSTRACT

Jihva Pariksha (tongue examination) is one of the eight components of *Ashtavidha Pariksha* described by *Acharya Yogaratnakara*, and occupies a unique place among *Ayurvedic* diagnostic methods because the tongue is the only internal organ that can be observed directly, without any invasive procedure. Classical *Ayurvedic* literature - the *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Sangraha*, *Ashtanga Hridaya* and *Yogaratnakara* - describes the tongue as a mirror of *Dosha*, *Dhatu*, *Agni* and *Ama* status, and assigns it prognostic value through the concept of *Jihva Arishta Lakshana*. However, this knowledge remains scattered across *Roga Pariksha*, *Dosha Lakshana*, *Agni-Ama Vijnana*, *Dhatu Pradoshaja Vikara*, *Mukharoga* and *Arishta Vijnana* sections of different *Samhitas*, and no single, organised compilation is readily available. The present review consolidates the classical descriptions of *Jihva Pariksha* - its embryological origin, anatomical seat, physiological functions, characteristics of the healthy (*Prakrita*) tongue, *Dosha*-wise and disease-specific tongue signs, diseases of the tongue itself (*Jihva Roga*), and fatal prognostic signs (*Arishta Lakshana*) - and correlates them with the anatomy, physiology and clinical semiology of the tongue in contemporary medicine, as well as with the tongue-diagnosis tradition of Traditional Chinese Medicine (TCM). The review highlights that tongue examination is a simple, safe, repeatable, and economical bedside tool with considerable but still under-validated diagnostic and prognostic potential, and identifies the

lack of standardisation and of an organised digital image database as the principal research gap to be addressed by future clinical and technology-assisted studies.

Keywords: *Jihva Pariksha*, *Ashtavidha Pariksha*, Tongue examination, *Dosha*, Traditional Chinese Medicine, tongue diagnosis.

1. INTRODUCTION

Ayurveda is a holistic system of medicine directed equally at the preservation of health of the healthy (*Swasthasya Swasthya Rakshanam*) and the cure of disease in the afflicted (*Aturasya Vikara Prashamanam*). Because appropriate treatment can be planned only after correctly understanding both the disease and the patient, the science of clinical examination (*Pariksha*) occupies a central position in *Ayurvedic* practice. *Acharya Charaka* states that the very purpose of examination (*Pariksha*) is to arrive at correct knowledge that permits proper therapeutic action (*Cha. Vi. 8/132*) - diagnosis is therefore never an end in itself, but the foundation of rational therapeutics.

The classics describe two complementary streams of examination: *Roga Pariksha* (examination of the disease, through *Nidana Panchaka* - *Nidana*, *Purvarupa*, *Rupa*, *Upashaya* and *Samprapti*) and *Rogi Pariksha* (examination of the patient). Among the several enumerated schemes of *Rogi Pariksha* - *Dwividha*, *Trividha*, *Chaturvidha*, *Shadvidha* and *Dashavidha Pariksha* - the *Ashtavidha Pariksha* described by *Acharya Yogaratnakara* is the most practical and widely used at the bedside. It comprises examination of *Nadi* (pulse), *Mutra* (urine), *Mala* (stool), *Jihva* (tongue), *Shabda* (voice), *Sparsha* (touch), *Drik* (eyes) and *Akriti* (general appearance/build).

Among these eight parameters, *Jihva Pariksha* occupies a distinctive position because the tongue is directly visible without instrumentation, is richly vascular, and is dominated by *Jala Mahabhuta*, so that it continuously mirrors alterations in digestion, metabolism, tissue nourishment and *Dosha* equilibrium. Even before advanced signs of disease appear elsewhere in the body, subtle changes of colour, coating, moisture, texture, shape and mobility may already be visible on the tongue. *Acharya Vagbhata* emphasises that the patient should be examined through *Darshana* (inspection), *Sparshana* (palpation) and *Prashna* (interrogation) (*A.H. Su. 1/22*), and among these, *Darshana Pariksha* forms the first step of clinical assessment, of which *Jihva Pariksha* is one of the most informative applications.

Classical literature describes both the *Prakrita* (normal) and *Vaikrita* (pathological) tongue in detail. A healthy tongue is soft, clean, mildly reddish, moist and freely mobile. *Vata* vitiation produces dryness, roughness and fissuring; *Pitta* produces redness, yellowish discoloration and a burning sensation; *Kapha* produces pallor, heaviness and a thick whitish coating. Tongue coating is closely linked to the presence of *Ama*, and tongue appearance also reflects the functional state of *Samagni*, *Mandagni*, *Tikshnagni* and *Vishamagni*. References to *Jihva Lakshana* are scattered through the *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Ashtanga Sangraha* and *Yogaratanakara* in the context of *Annavaha Srotas* disorders, *Mukharoga*, *Jwara*, *Pandu*, *Grahani* and various *Dhatu Pradoshaja* conditions, and the concept of *Jihva Arishta Lakshana* - blackish discoloration, stiffness, thorn-like projections, *Preta-Jihva* - extends the diagnostic utility of tongue examination into the domain of prognosis.

Interestingly, tongue examination is not unique to *Ayurveda*. Traditional Chinese Medicine (TCM) independently developed an elaborate, systematic tradition of tongue diagnosis correlating tongue

colour, body shape, coating and moisture with internal organ function, and modern clinical medicine continues to use tongue inspection during routine physical examination to identify anaemia, dehydration, nutritional deficiency, hepatic disease and a range of systemic disorders. This cross-cultural convergence underlines the enduring clinical relevance of a simple visual examination.

Despite this extensive classical and cross-disciplinary importance, the knowledge of *Jihva Pariksha* remains dispersed, comparatively fewer systematic compilations exist for it than for *Nadi Pariksha*, and its clinical application continues to rely on subjective, non-standardised observation. This creates the need for a focused, comprehensive review that draws together the classical descriptions of *Jihva Pariksha*, correlates them with modern anatomical, physiological and clinical knowledge and with cross-cultural (TCM) perspectives, and identifies the gaps that must be addressed to make tongue examination a more objective, evidence-based diagnostic and prognostic tool.

2. CONCEPT OF PARIKSHA AND THE PLACE OF JIHVA PARIKSHA

2.1 Nirukti and Objective of Pariksha

The term *Pariksha* is derived from *Para* (all sides / every aspect) and *Iksha* (observation, inspection), and therefore literally denotes a comprehensive examination from every possible perspective. *Acharya Charaka* states that examination should always precede treatment - the physician should first examine the disease, then select medicine, and only thereafter begin treatment with proper knowledge (*Cha. Su. 20/20*); one who begins treatment without properly understanding the disease succeeds only by chance (*Cha. Su. 20/21*), whereas the physician who understands the disease together with place, season and patient strength attains certain success (*Cha. Su. 20/22*). *Pariksha* is thus not merely diagnostic in purpose but directly therapeutic in significance.

Mool Shlokas (Section 2.1)-

परीक्षायास्तु खलु प्रयोजनं प्रतिपत्तिज्ञानम्। प्रतिपत्तिर्नाम यो विकारो यथा प्रतिपत्तव्यस्तस्य तथानुष्ठानज्ञानम्॥ (*Cha. Vi. 8/132*)

रोगमादौ परीक्षेत ततोऽनन्तरमौषधम्। ततः कर्म भिषक् पश्चाज्ज्ञानपूर्वं समाचरेत्॥२०॥ (*Cha. Su. 20/20*)

यस्तु रोगमविज्ञाय कर्माण्यारभते भिषक्। अप्यौषधविधानज्ञस्तस्य सिद्धिर्यदृच्छया॥२१॥ (*Cha. Su. 20/21*)

यस्तु रोगविशेषज्ञः सर्वभैषज्यकोविदः। देशकालप्रमाणज्ञस्तस्य सिद्धिरसंशयम्॥२२॥ (*Cha. Su. 20/22*)

2.2 Roga Pariksha and Rogi Pariksha

Ayurveda evaluates disease and patient as two interdependent entities, since the same disease may manifest differently according to the patient's constitution, strength, age, adaptability and mental status. *Roga Pariksha* is accomplished through the five components of *Nidana Panchaka* (*Nidana*, *Purvarupa*, *Rupa/Lakshana*, *Upashaya* and *Samprapti*) (*Cha. Ni. 1/6*), while *Rogi Pariksha* is accomplished through *Darshana* (inspection), *Sparshana* (palpation) and *Prashna* (interrogation) (*A.H. Su. 1/22*). Classical texts further describe *Dwividha*, *Trividha*, *Chaturvidha*, *Shadvidha*, *Ashtavidha* and *Dashavidha* schemes of patient examination, of increasing comprehensiveness.

Mool Shlokas (Section 2.2)-

रुजतीति रोगः। | रुजन्तीति रोगाः। (*A.H. Ni. 1/1 and A.H. Su. 1/1, commentary*)

रोगोऽस्यास्तीति रोगी व्याधितः। (*A.H. Su. 1/22, commentary*)

रोगं निदानप्रागुपलक्षणोपशयात्तिभिः। (A.H. Su. 1/22)

तस्योपलब्धिर्निदानपूर्वरूपलिङ्गोपशयसम्प्राप्तितः॥६॥ (Cha. Ni. 1/6)

दर्शनस्पर्शनप्रश्नैः परीक्षेत च रोगिणम्। (A.H. Su. 1/22)

एतद्दशविधमग्रे परीक्ष्यम्। (Cha. Vi. 8/79)

दृश्यं देशं बलं कालमनलं प्रकृतिं वयः। सत्त्वं सात्त्यं तथाऽऽहारमवस्थां च पृथग्विधाम्॥ (Cha. Vi. 8)

2.3 Ashtavidha Pariksha and the Position of Jihva

Acharya Yogaratnakara enumerates eight sites of examination in a diseased individual - *Nadi, Mutra, Mala, Jihva, Shabda, Sparsha, Drik* and *Akriti* (Y.R. Purva Khanda 5/1) - through which the physician assesses *Dosha, Dhatu, Agni, Ama* and the overall strength of the patient. Within this scheme, *Jihva* occupies the fourth place. Because the tongue is continuously exposed to internal metabolic change, it often reveals disease even before many external signs appear, so that *Jihva Pariksha* is routinely performed at the very outset of clinical assessment. It is described as the index of the stomach - reflecting digestive status - and is examined principally under *Darshana Pariksha*, since '*Darshana*' has been explained by the commentator *Arunadatta* as observation through direct visual inspection (A.H. Su. 1/22, *Arunadatta commentary*).

Scheme	Components	Position of Jihva
<i>Dashavidha Pariksha</i> (Cha. Vi. 8)	<i>Dosya, Desha, Bala, Kala, Anala, Prakriti, Vaya, Sattva, Satmya, Ahara Shakti</i>	Not listed as an independent item, but tongue findings support several of these parameters (e.g., <i>Bala, Anala/Agni</i>)
<i>Ashtavidha Pariksha</i> (Y.R. Purva Khanda 5/1)	<i>Nadi, Mutra, Mala, Jihva, Shabda, Sparsha, Drik, Akriti</i>	Independent, fourth parameter

Mool Shlokas (Section 2.3)-

रोगाक्रान्तशरीरस्य स्थानान्यष्टौ निरीक्षयेत्। नाडीं मूत्रं मलं जिह्वां शब्दं स्पर्शं दृगाकृती॥ (Yogaratanakara, Purva Khanda 5/1)

दर्शनेन दृष्ट्या। (A.H. Su. 1/22, *Arunadatta commentary*)

अविज्ञाते हि व्याधौ चिकित्सा न प्रवर्तते। (Cha. Ni. 1/6, *Chakrapani commentary*)

निदानार्थकरो रोगो रोगस्याप्युपलक्ष्यते। आदौ सर्वेषु रोगेषु नाडीजिह्वाक्षिमूत्रतः। परीक्षां कारयेद्वैद्यः पश्चाद्रोगं चिकित्सयेत्॥३९॥ (Y.R. Purva Khanda 1/39)

नाड्या मूत्रस्य जिह्वाया लक्षणं यो न विन्दति। मारयत्याशु वै जन्तुं स वैद्यो न यशो भजेत्॥४०॥ (Y.R. Purva Khanda 1/40)

लक्षयित्वा देशकालौ ज्ञात्वा रोगबलाबलम्। चिकित्सामारभेद्वैद्यो यशः कीर्तिमवाप्नुयात्॥४१॥ (Y.R. Purva Khanda 1/41)

3. AYURVEDIC ANATOMY AND PHYSIOLOGY OF JIHVA

3.1 Utpatti (Formation) and Embryological Development

Acharya Sushruta compares the origin of the tongue to cream forming on heated milk, stating that the tongue develops from the essence (*Sara*) of *Kapha*, *Rakta* and *Mamsa* (*Su. Sha. 4/27-28*). *Charaka*, *Ashtanga Sangraha* and *Ashtanga Hridaya* agree that all sense organs and body parts, including the tongue, develop simultaneously during the third month of intrauterine life (*Cha. Sha. 4/11*); the *Garbhopanishad* additionally mentions its complete development by the sixth month.

Mool Shlokas (Section 3.1)- (*Nirukti, Paryaya, Utpatti*)

रसत्यास्वादयत्यनेनेति रसनम्। (*Cha. Su. 8/8, commentary*)

रसज्ञा रसना जिह्वा। (*Amarakosha*)

कफशोणितमांसानां साराज्जिह्वा प्रजायते॥२८॥ (*Su. Sha. 4/27-28*)

तृतीये मासि सर्वेन्द्रियाणि सर्वाङ्गावयवाश्च यौगपद्येनाभिनिर्वर्तन्ते॥११॥ (*Cha. Sha. 4/11*)

3.2 Jihva as Indriya

Among the *Panchendriyas* (five cognitive sense organs) - *Chakshu*, *Shrotra*, *Ghrana*, *Rasana* and *Sparshana* (*Cha. Su. 8/8*) - *Jihva* is the anatomical seat (*Adhisthana*) of *Rasanendriya*, the sense of taste (*Cha. Su. 8/10*; *Cha. Sha. 7/7*; *A.S. Sha. 5/25*). Its predominant *Mahabhuta* is *Ap* (water) (*Cha. Su. 8/9*; *Su. Sha. 1/7*; *A.S. Sha. 5/6*), which explains why taste can be perceived only when a substance is dissolved in moisture, and why saliva is essential to *Rasagrahana*. Its specific sense-object is *Rasa* (taste) (*Cha. Su. 8/11*), and true perception of taste requires the coordinated involvement of the sense organ, the sense object, the mind (*Manas*) and consciousness (*Cha. Su. 8/7*).

Uniquely among the sense organs, *Jihva* also functions as a *Karmendriya* (motor organ), participating in the production of speech (*Cha. Sha. 7/7*; *A.S. Sha. 5/26*). *Charaka* states that the tongue is the organ of speech, and that truthful speech is likened to light while false speech is likened to darkness (*Cha. Sha. 1/26*), underlining both the physiological and the ethical dimension attached to this organ. The tongue is also one of the seats of *Prana Vayu* (governing swallowing, sneezing, belching, expectoration and sensory perception) (*Cha. Chi. 28/6*) and is included among the *Sapta Mahamarma*-related *Pranayatanas* (*A.S. Sha. 5/32*).

Mool Shlokas (Section 3.2)-

तत्र चक्षुः श्रोत्रं घ्राणं रसनं स्पर्शनमिति पञ्चेन्द्रियाणि॥ (*Cha. Su. 8/8*)

पञ्च बुद्धीन्द्रियाणि; तद्यथा- स्पर्शनं, रसनं, घ्राणं, दर्शनं, श्रोत्रमिति। (*Cha. Sha. 7/7*)

पञ्च बुद्धीन्द्रियाणि श्रोत्रं स्पर्शनं दर्शनं रसनं घ्राणं च। (*A.S. Sha. 5/25*)

पञ्चेन्द्रियाधिष्ठानानि- अक्षिणी कर्णौ नासिके जिह्वा त्वक् चेति॥ (*Cha. Su. 8/10*)

इन्द्रियाधिष्ठानमिन्द्रियाश्रयः। (*commentary*)

पञ्चेन्द्रियाधिष्ठानानि; तद्यथा- त्वक्, जिह्वा, नासिका, अक्षिणी, कर्णौ च। (*Cha. Sha. 7/7*)

पञ्चबुद्धीन्द्रियाधिष्ठानानि कर्णौ त्वगाक्षिणी जिह्वा नासिके च। (*A.S. Sha. 5/25*)

पञ्चेन्द्रियद्रव्याणि- खं वायुर्ज्योतिरापो भूरिति॥ (*Cha. Su. 8/9*)

पञ्चेन्द्रियार्थः- शब्दस्पर्शरूपरसगन्धाः॥ (Cha. Su. 8/11)

तेषां सभागतया क्रमाद्विषयाः शब्दस्पर्शरूपरसगन्धाः। (A.S. Sha. 5/25)

मनःपुरःसराणीन्द्रियाण्यर्थग्रहणसमर्थानि भवन्ति॥ (Cha. Su. 8/7)

पञ्च कर्मेन्द्रियाणि; तद्यथा- हस्तौ, पादौ, पायुः, उपस्थः, जिह्वा चेति॥ (Cha. Sha. 7/7)

पञ्च कर्मेन्द्रियाणि वाक्-पायु-उपस्थ-पाणि-पादसंज्ञकानि। तान्यपि च वचनोत्सर्गहर्षदानगमनार्थानि॥ (A.S. Sha. 5/26)

जिह्वा वागिन्द्रियं वाक् च सत्या ज्योतिस्तमोऽनृता॥ (Cha. Sha. 1/26)

अग्निः सोमो वायुः सत्त्वं रजस्तमः पञ्चेन्द्रियाणि भूतात्मेति प्राणाः॥ (Su. Su. 4/3)

शरीरेन्द्रियसत्त्वात्मसंयोगो धारि जीवितम्। नित्यगश्चानुबन्धश्च पर्यायैरायुरुच्यते॥ (Cha. Su. 1/42)

3.3 Structural and Surgical Anatomy

- Weight: approximately twelve *Palas*, corresponding to roughly 45.5 g (*Garbhpanishad*).
- Number: one *Jihva* together with two *Upajihvikas* (tonsils) (*Cha. Sha. 7/11*).
- Musculature: classical texts describe one to two *Peshis* (muscles) associated with the tongue, and additional muscular slips at the throat, uvula and head region (*Su. Sha. 5/37; A.S. Sha. 5/56*).
- Vasculature: sixteen of the veins of the tongue are described as unsuitable for surgical intervention (*Avedhya Sira*); two subserve taste and two subserve speech (*Su. Sha. 7/22*). Of forty-one veins above the clavicle, nine are located in the tongue (*Su. Sha. 7/7*).
- Ligaments: five *Snayus* are described in relation to the tongue (*A.S. Sha. 5/51*).
- *Sushruta* also describes the specific technique of *Siravyadha* (venesection) of the tongue and the sites to be avoided in tongue disease (*Su. Sha. 8/8, 8/17*).
- A person with excellent *Rakta Sara* is described as having a smooth, unctuous, copper-coloured tongue (*Su. Su. 35/16*), and the moisture of the tongue is grouped, together with that of the eyes and palate, among the *Mala of Rasa Dhatu* (*Sharngadhara Purva Khanda 5/25*).

Mool Shlokas (Section 3.3)-

द्वादश पलानि जिह्वा॥५॥ (*Garbhpanishad*)

रसनस्यापः। (*Su. Sha. 1/7*)

आपो रसने। (*Cha. Su. 8/14*)

आम्भसानि रसनं रसः। (*A.S. Sha. 5/6*)

आप्या जिह्वा रसक्लेदा। (*A.H. Sha. 3/4*)

आप्यास्तु रसो रसनेन्द्रियं सर्वद्रवसमूहो गुरुता शैत्यं स्नेहो रेतश्च। (*Su. Sha. 1/19*)

हे उपजिह्विके एक गोजिह्विका। (Cha. Sha. 7/11)

स्थानं प्राणस्य मूर्धारः कण्ठजिह्वास्यनासिकाः। (Cha. Chi. 28/6)

स्निग्धताम्रजिह्वा रक्तेन। (Su. Su. 35/16)

एका जिह्वायाम्। | जिह्वायां द्वे इति पाठः। (Su. Sha. 5/37 and commentary)

एकैका गलकाकलजिह्वामूर्धसु। (A.S. Sha. 5/56)

षट्त्रिंशजिह्वायां, तासामधः षोडशाशस्त्रकृत्याः, रसवहे द्वे, वाग्वहे च द्वे। (Su. Sha. 7/22)

सिराः एकचत्वारिंशज्जत्रूर्ध्वः, नव जिह्वायाम्। (Su. Sha. 7/7)

उन्नमितविदष्टजिह्वाग्रस्याधोजिह्वायाम्। (Su. Sha. 8/8)

जिह्वारोगेष्वधोजिह्वायां कर्णयोरुपरि समन्तात्। (Su. Sha. 8/17)

शब्दरूपरसगन्धानष्टाभिर्गृहीते। (Su. Sha. 9/5)

पञ्च जिह्वायाम्। (A.S. Sha. 5/51)

दश प्राणायतनानि मूर्धा जिह्वाबन्धनं कण्ठो हृदयं नाभिर्बस्तिर्गुदः शुक्रमोजो रक्तं च। तेषामादयानि सप्त पुनर्महामर्मसंज्ञानि॥ (A.S. Sha. 5/32)

जिह्वानेत्रकपोलानां जलं पित्तं च रज्जकम्। (Sharngadhara Samhita, Purva Khanda 5/25)

सप्त सेवन्यः, शिरसि विभक्ताः पञ्च, जिह्वाशेषसारेकैका, ताः परिहर्तव्याः शस्त्रेण। (Su. Sha. 5/15)

सप्त सीवन्यः। ताः पञ्च शिरसि जिह्वमेहनयोरेकैका। परिहार्याश्च शस्त्रेण॥ (A.S. Sha. 5/37)

उरः कण्ठशिरः क्लोमपर्वाण्यामाशयो रसः। मेदो घ्राणं च जिह्वा च कफस्य सुतरामुरः॥ (A.H. Su. 12/3)

रसबोधनात्। बोधको रसनास्थायी॥ (A.H. Su. 12/16)

रसनास्थायी-जिह्वास्थो बोधक इत्युच्यते, रसबोधनात् कारणात्। (A.H. Su. 12/16, commentary)

शुक्रशोणितं गर्भाशयस्थमात्मप्रकृतिविकारसम्मूर्च्छितं गर्भ इत्युच्यते। तं चेतनावस्थितं वायुर्विभजति, तेज एनं पचति, आपः क्लेदयन्ति, पृथिवी संहन्ति, आकाशं विवर्धयति। एवं विवर्धितः स यदा हस्तपादजिह्वाघ्राणकर्णनितम्बादिभिरङ्गैरुपेतस्तदा शरीरमिति सञ्ज्ञां लभते॥३॥ (Su. Sha. 5/3)

3.4 Functional Significance of Jihva as an Indriya

- *Rasagrahana* (perception of the six tastes - *Shad Rasa*), which also guides dietary selection.
- Speech production, permitting articulation and communication.
- Diagnostic importance - visible changes of colour, coating, moisture and mobility form part of routine clinical assessment.
- Nutritional regulation, by influencing appetite and digestion through taste perception.
- Cognitive function, acting as a medium for sensory knowledge acquisition (*Jnanendriya*).

4. THE HEALTHY (PRAKRITA) TONGUE AND JIHVA NIRLEKHANA

Classical literature describes the tongue of a *Dirghayu Balaka* (long-lived, healthy child) and, by extension, of the healthy adult as soft, clean, mildly reddish, moist, of normal size and shape, free of fissures or coating, and capable of full, unrestricted movement, with normal taste perception. Any deviation from this *Prakrita* state - in colour, coating, moisture, texture, shape or mobility - is regarded as *Vaikrita* (pathological) and forms the basis of *Jihva Pariksha* in disease.

Jihva Nirlekhana (tongue scraping) is described as an essential component of daily regimen (*Dinacharya*) in the *Charaka Samhita*, *Ashtanga Sangraha* and *Yogaratanakara*, aimed at removing oral impurities, preventing foul breath (*Durgandha*), enhancing taste perception and imparting a feeling of freshness and lightness (*Cha. Su. 5/74-75; A.S. Su. Dinacharya 3/17-18*). Modern dental science similarly recognises that the coating of the tongue - composed of desquamated epithelial cells, food debris, bacteria and fungal organisms - contributes to oral malodour and plaque formation, and that regular tongue scraping reduces microbial load, decreases volatile sulphur compounds responsible for halitosis, and complements toothbrushing. The classical practice of *Jihva Nirlekhana* therefore aligns closely with contemporary preventive oral healthcare.

Mool Shlokas (Section 4)-

आयामविस्तारोपपन्ना श्लक्ष्णा तन्वी प्रकृतिवर्णयुक्ता जिह्वा,... इति दीर्घायुर्लक्षणानि ॥ (*Cha. Sha. 8/51*)

जिह्वा तु कोमला यस्य स रोगी न विनश्यति। (*Bhavaprakasha, Purva Khanda, Mishra Prakarana 56*)

जिह्वा रक्ताऽऽयता तन्वी। (*A.H. Sha. 3/111*)

लिखेदनुसुखं जिह्वां जिह्वानिलेखनेन च॥१७॥ तथाऽस्य मलवैरस्यजिह्वागन्धास्यदन्तजाः। रुचिवैशद्यलघुता न भवन्ति भवन्ति च॥१८॥ (*A.S./A.H. Su. 3/17-18*)

सुवर्णरूप्यताम्राणि त्रपुरीतिमयानि च। जिह्वानिलेखनानि स्युरतीक्ष्णान्यनृजूनि च॥७४॥ जिह्वामूलगतं यच्च मलमुच्छ्वासरोधि च। दौर्गन्ध्यं भजते तेन तस्माज्जिह्वां विनिलिखेत्॥७५॥ (*Cha. Su. 5/74-75*)

जिह्वानिलेखनं हैमं राजतं ताम्रजं तथा॥५१९॥ पाटितं मृदु तत्काष्ठं मृदुपत्रमयं तथा। दशाङ्गुलं मृदु स्निग्धं तेन जिह्वां लिखेत्सुखम्॥५२०॥ तेनाऽस्यमलवैरस्यगन्धजिह्वाऽस्यदन्तजाः। नश्यन्ति रुचिवैशद्यं लघुता च भवन्ति हि॥५२१॥ (*Yogaratanakara, Dinacharya adhyaya*)

5. DIAGNOSTIC SIGNIFICANCE OF JIHVA PARIKSHA

Because the tongue is nourished by *Rasa Dhatu*, richly supplied by *Siras*, and continuously influenced by *Agni* and *Dosha* status, alterations in its appearance and function are among the earliest clinical manifestations of *Dosha* vitiation, *Dhatu Pradosha*, and *Agni-Ama* disturbance. Classical *Samhitas* repeatedly describe dryness, discoloration, burning sensation, altered taste, excessive salivation and coating of the tongue in the context of *Dosha Vikara*.

5.1 Dosha-wise Jihva Lakshana

The three *Doshas* produce characteristic and distinguishable tongue changes, summarised in *Yogaratanakara*: a cold, rough, fissured tongue in *Vata* predominance; a red or dusky tongue in *Pitta* predominance; a white-coated, slimy tongue in *Kapha* predominance; and a black, thorny, dry tongue in *Sannipata* (*Y.R. Purva Khanda 1/132-133*).

Dosha	Classical Jihva Lakshana	Associated Oral/Systemic Features
<i>Vata (Cha. Su. 20/11-12; A.S. Su. 20/15)</i>	Cold to touch (<i>Sita</i>), rough (<i>Khara-sparsha</i>), fissured (<i>Sphutita</i>), dry	Astringent taste (<i>Kasayasyata</i>), dryness of mouth (<i>Mukha Sosha</i>), loss of taste (<i>Arasajnata</i>), difficulty in speech (<i>Vaksanga</i>)
<i>Pitta (A.S. Su. 20/16; 19/5)</i>	Reddish or dark (<i>Rakta/Syama</i>), often with burning	Bitter taste (<i>Tiktasyata</i>), foul breath (<i>Putimukhatva</i>), excessive thirst, oral inflammation (<i>Asyapaka</i>)
<i>Kapha (A.S. Su. 20/17)</i>	Whitish (<i>Sukla</i>), excessively slimy/coated (<i>Atipicchila</i>)	Sweet taste (<i>Mukha Madhurya</i>), excessive salivation (<i>Praseka</i>), heaviness, dulled taste
<i>Sannipata (Y.R. Purva Khanda 1/132-133)</i>	Blackish (<i>Krishna</i>), thorny (<i>Sakantaka</i>), dry (<i>Suska</i>)	Combined features of all three <i>Doshas</i> ; poor prognosis

Mool Shlokas (Section 5.1)-

जिह्वा शीता खरस्पर्शा स्फुटिता मारुतेऽधिके। रक्ता श्यामा भवेत्पित्ते कफे शुभ्राऽतिपिच्छिला॥ कृष्णा सकण्टका शुष्का संनिपाताधिके तु सा। मिश्रिते मिश्रिता ज्ञेया सर्वलक्षणवर्जिता॥ (Y.R. Purva Khanda 1/132-133)

वाते च मधुरास्यत्वं पित्ते च कटुकं तथा। मधुराम्लं कफे चैव सर्वलिङ्गं त्रिदोषजे। अजीर्णे घृतपूर्णं स्यात्कषायं चाग्निमान्द्यके॥१३१॥ (Y.R. Purva Khanda 1/131)

वाक्सङ्गश्च, कषायास्यता च, मुखशोषश्च, अरसज्ञता च॥ (Cha. Su. 20/11)

कषायविरसमुखत्वम्। (Cha. Su. 20/12)

कषायास्यता मुखशोषो रसाज्ञत्वम्। (A.S. Su. 20/15)

तिक्तास्यता लोहितगन्धास्यता पूतिमुखत्वं तृष्णाधिक्यमतृप्तिरास्यपाको गलपाकः। (A.S. Su. 20/16)

तिक्तास्यता। (A.S. Su. 19/5)

मुखमाधुर्यं प्रसेकः श्लेष्मोद्विरणं मलाधिक्यम्। (A.S. Su. 20/17)

5.2 Jihva Lakshana in Dhātu Pradoshaja Vikara

Vitiation of *Rasa Dhātu* is described as producing abnormal taste (*Virasyata*), loss of taste perception (*Arasajnata*) and pallor (*Panduta*) (*Cha. Su. 28/9-10*), which are expected to manifest as pallor, coating and diminished sensory function of the tongue. Vitiation of *Rakta Dhātu* is associated with *Asyapaka* - oral inflammation and ulceration (*Cha. Su. 28/11-12*) - correlating with tongue ulceration, burning and redness.

Mool Shlokas (Section 5.2)-

स्यवैरस्यमरसज्ञता पाण्डुत्वम्। (Cha. Su. 28/9-10)

आस्यपाकश्च। (Cha. Su. 28/11-12)

5.3 Assessment of *Agni* and *Ama* through *Jihva*

Since health and disease alike depend on the status of *Agni*, and impaired *Agni* (*Agnimandya*) leads to the formation of *Ama*, the intimate relationship of the tongue with *Rasa Dhatu* and *Rasanendriya* makes it a sensitive indicator of digestive and metabolic status. A clean tongue generally indicates a *Nirama* state, whereas thick coating, sticky deposits, foul odour, loss of taste and a moist, heavy appearance are described (*with reference to Madhava Nidana 25/3, Vijayarakshita's commentary*) as suggestive of *Ama*. Progressive discoloration, dryness, blackish appearance or loss of tongue movement are regarded as indicating increasing disease severity and poorer prognosis.

Mool Shlokas (Section 5.3)-

समदोषः समाग्निश्च समधातुमलक्रियः। प्रसन्नात्मेन्द्रियमनाः स्वस्थ इत्यभिधीयते॥ (*Cha. Su. 9/4*)

ऊष्मणोऽल्पबलत्वेन धातुमाद्यमपाचितम्। दुष्टमाशयगतं रसमामं प्रचक्षते॥ (*Cha. Chi. 15/44*)

रोगाः सर्वेऽपि मन्दाग्नौ॥ (*A.H. Ni. 12/1*)

5.4 Disease-specific *Jihva Lakshana*

Numerous disease-specific tongue changes are scattered through the *Chikitsa* and *Nidana* sections of the classics:

- *Ajirna* (*Cha. Chi. 15/47*): burning sensation, excessive thirst, oral disorders and *Amlapitta* when improperly digested food combines with aggravated *Pitta* - expected tongue findings include yellow coating, sour taste, burning sensation and dryness.
- *Grahani* (*Cha. Chi. 15/68*): *Kaphaja Grahani* is marked by *Asyopadeha* (mouth coating) and sweetness of the mouth - expected findings include thick white, sticky coating, excess salivation and dulled taste.
- *Pittodara* (*Cha. Chi. 13/28*): pungent taste (*Katukasyatva*) - expected findings include a yellowish tongue with bitter taste.
- *Pandu Roga* (*Cha. Chi. 16/31-33*): a chronic, '*Kharibhuta*' (excessively rough and dry) tongue, with progressive pallor, dryness and whitish coating, is described among the *Asadhya* (poor-prognosis) signs, reflecting depletion of *Rasa* and *Rakta Dhatu*.
- *Kamala* (*Cha. Chi. 16/35; Su. Uttara 44, commentary*): yellow discoloration of the eyes, skin, nails and face extends to the oral cavity - the tongue characteristically shows yellow discoloration with a moist yellow coating and reduced lustre.
- *Kaphaja Kasa* (*Cha. Chi. 18/18*) and *Kaphaja Chardi* (*Cha. Chi. 20/13*): both are associated with sweetness of the mouth and excessive salivation - correlating with a moist tongue, thick whitish coating and excess salivation.

Mool Shlokas (Section 5.4)-

संसृज्यमानं पित्तेन दाहं तृष्णां मुखामयान्। जनयत्यम्लपित्तं च पित्तजांश्चापरान् गदान्॥४७॥ (*Cha. Chi. 15/47*)

आस्योपदेहमाधुर्यम्। (*Cha. Chi. 15/68*)

कटुकास्यत्वम्। (*Cha. Chi. 13/28*)

पाण्डुरोगश्चिरोत्पन्नः खरीभूतो न सिध्यति। कालप्रकर्षाच्छूनो यश्च पीतानि पश्यति॥३१॥ बद्धाल्पविट्कं सकफं हरितं योऽतिसार्यते। दीनः श्वेतातिदिग्धाङ्गश्छर्दिमूर्च्छातृषादितः॥३२॥ स नास्त्यसृक्क्षयाद्यश्च पाण्डुः श्वेतत्वमाप्नुयात्। इति पञ्चविधस्योक्तं पाण्डुरोगस्य लक्षणम्॥३३॥ (Cha. Chi. 16/31-33)

खरीभूतः - खरीभूत इति अत्यर्थरूक्षः। श्वेतातिदिग्धाङ्गः - श्वेतातिदिग्धाङ्ग इति श्वेतवर्णलिप्ताङ्ग इत्यर्थः। (Cha. Chi. 16/31-33, commentary)

हारिद्रनेत्रः स भृशं हारिद्रत्वङ्नखाननः। रक्तपीतशकृन्मूत्रो भेकवर्णो हतेन्द्रियः॥३५॥ (Cha. Chi. 16/35)

करोति पाण्डुं वदनं (पीतवदनम्) विशेषात् पूर्वैरितौ तन्द्रिबलक्षयौ च। (Su. Uttara 44, commentary)

लोमहर्षास्यमाधुर्यक्लेदसंसदनैर्युतम्। (Cha. Chi. 18/18)

तन्द्रास्यमाधुर्यकफप्रसेकसन्तोषनिद्रारुचिगौरवार्तः। (Cha. Chi. 20/13)

परिदग्धा खरस्पर्शा जिह्वा स्रस्ताङ्गता परम्॥१०५॥ | परिदग्धा दग्धवत् कृष्णवर्णा खरस्पर्शा गोजिह्वावत्। (Cha. Chi. 3/105 and commentary (Sannipata Jwara))

5.5 Jihva Roga (Primary Diseases of the Tongue)

Acharya Sushruta describes seven anatomical sites of *Mukharoga* (*Ostha*, *Dantamula*, *Danta*, *Jihva*, *Talu*, *Kantha* and *Sarva Mukha*), of which five diseases are specifically located in the tongue (*Su. Ni. 16/3*): three varieties of *Kantaka* (caused individually by *Vata*, *Pitta* and *Kapha*), *Alasa* and *Upajihvika* (*Su. Ni. 16/37*).

- *Vataja Kantaka*: the tongue becomes fissured, numb and rough, compared to the leaf of the *Saka* tree (*Su. Ni. 16/39*).
- *Pittaja Kantaka*: the tongue turns yellow, burns intensely and is studded with reddish, thorn-like eruptions (*Su. Ni. 16/39*).
- *Kaphaja Kantaka*: the tongue becomes heavy and thick, covered with fleshy projections resembling the thorns of the *Salmali* tree (*Su. Ni. 16/39*).

Acharya Vagbhata expands this classification by adding *Adhijihva* as a separate tongue disease, describing six tongue disorders in all. *Adhijihva* presents as a swelling resembling the tip of the tongue near its attachment, associated with papillary projections, excessive salivation, stiffness, roughness, pain and itching, and interference with speech and swallowing (*A.H. Uttara 21/34-35*); *Upajihva* has similar features and, in the *Ashtanga Hridaya* text, is described as situated above the tongue (*A.H. Uttara 21/35*), being similar to *Adhijihva* in presentation but differing in location. Sushruta's commentator Gayadasa differentiates *Adhijihva* (above the root of the tongue) from *Upajihva* (beneath the tongue) on the basis of anatomical location (*Su. Ni. 16/52*), and Dalhana explains *Upajihvika* as arising by lifting the tongue upward, i.e., beneath it (*Su. Ni. 16/41*).

Mool Shlokas (Section 5.5)-

मुखरोगाः पञ्चषष्टिर्भवन्ति सप्तस्वायतनेषु। | तत्र पञ्च जिह्वायाम्। (Su. Ni. 16/3)

जिह्वागतास्तु- कण्टकास्त्रिविधास्त्रिभिर्दोषैः, अलास, उपजिह्विका चेति॥३७॥ (Su. Ni. 16/37)

जिह्वाऽनिलेन स्फुटिता प्रसुप्ता भवेच्च शाकच्छदनप्रकाशा॥ पितेन पीता परिदह्यते च चिता सरक्तैरपि कण्टकैश्च॥ कफेन गुर्वी बहला चिता च मांसोद्गमैः शाल्मलिकण्टकाभैः॥ (Su. Ni. 16/39)

शाको वृक्षविशेषो महाखरपत्रलक्षणः। | मांसोद्गमैः मांसाङ्कुरैः। (Su. Ni. 16/39, Dalhana commentary)

जिह्वातले यः श्वयथुः प्रगाढः सोऽलाससञ्ज्ञः कफरक्तमूर्तिः। जिह्वां स तु स्तम्भयति प्रवृद्धो मूले तु जिह्वा भृशमेति पाकम्॥४०॥ (Su. Ni. 16/40)

कफरक्तमूर्तित्वेन कफरक्तयोः प्राधान्यं, जिह्वास्तम्भे वायुरप्यस्ति, भृशं पाके पित्तमप्यस्ति; अत एव त्रिदोषजत्वेनासाध्यत्वमपि। (Su. Ni. 16/40, Dalhana commentary)

जिह्वाग्ररूपः श्वयथुर्हि जिह्वामुन्नम्य जातः कफरक्तयोनिः। प्रसेककण्डूपरिदाहयुक्तः प्रकथ्यतेऽसावुपजिह्विकेति॥४१॥ (Su. Ni. 16/41)

जिह्वामुन्नम्य जातः- जिह्वाया अधो भवति। (Su. Ni. 16/41, Dalhana commentary)

शाखपत्रखरा सुप्ता स्फुटिता वातदूषिता॥३१॥ जिह्वा पित्तात् सदाहोषा रक्तैर्मांसाङ्कुरैश्चिता॥ (A.H. Uttara 21/31)

शाल्मलीकण्टकाभैस्तु कफेन बहला गुरुः॥३२॥ (A.H. Uttara 21/32)

कफपित्तादधः शोफो जिह्वास्तम्भकृदुन्नतः। मत्स्यगन्धिभित्पक्कः सोऽलसो मांसशातनः॥३३॥ (A.H. Uttara 21/33)

प्रबन्धनेऽधो जिह्वायाः शोफो जिह्वाग्रसन्निभः। साङ्कुरः कफपित्तास्रैर्लालोषास्तम्भवान् खरः॥३४॥ अधिजिह्वः सरुक्कण्डूर्वाक्याहारविघातकृत्॥३५॥ (A.H. Uttara 21/34-35)

जिह्वाग्रतुल्यः शोफः... वाक्याहारविघातं करोति। (A.H. Uttara 21/34-35, commentary)

तादृगेवोपजिह्वस्तु जिह्वाया उपरि स्थितः॥३५॥ | तादृगेव अधिजिह्वासदृश उपजिह्वः। (A.H. Uttara 21/35 and commentary)

5.6 Jihva Involvement in Kantharoga

Because the throat and tongue are anatomically and functionally continuous through the *Jihvamula* (tongue root), several throat diseases produce marked tongue changes. *Rohini*, one of the most serious throat diseases described by *Sushruta*, in its *Vataja* variety produces fleshy proliferations that extend around the tongue, causing severe pain, restricted movement and difficulty in speech (Su. Ni. 16/47-48). *Adhijihva*, when described in the context of *Kantharoga*, presents as a swelling above the root of the tongue interfering with speech (Su. Ni. 16/52). Careful tongue examination is therefore an essential part of assessing severe *Kantharoga*.

Mool Shlokas (Section 5.6)-

गलेऽनिलः पित्तकफौ च मूर्च्छितौ पृथक् समस्ताश्च तथैव शोणितम्। प्रदूष्य मांसं गलरोधिनोऽङ्कुरान् सृजन्ति यान् साऽसुहरा हि रोहिणी॥४७॥ जिह्वां समन्ताद्भृशवेदना ये मांसाङ्कुराः कण्ठनिरोधिनः स्युः। तां रोहिणीं वातकृतां वदन्ति वातात्मकोपद्रवगाढयुक्ताम्॥४८॥ (Su. Ni. 16/47-48)

जिह्वां समन्तादिति जिह्वां व्याप्य सम्भवतीत्यर्थः। (Su. Ni. 16/47-48, Dalhana commentary)

अङ्कुराञ्जनयन्त्याशु जिह्वामूले समन्ततः। (Su. Ni. 16/47-48, Gayadasa commentary)

जिह्वाग्ररूपः श्वयथुः कफात्तु जिह्वाग्रबन्धोपरि रक्तमिश्रात्। ज्ञेयोऽधिजिह्वः खलु रोग एष विवर्जयेदागतपाकमेनम्॥५२॥ (Su. Ni. 16/52)

जिह्वाप्रबन्धस्योपरि जिह्वामूलस्योपरिष्ठादित्यर्थः। आगतपाकत्वेन पित्तमप्यत्रास्ति। (Su. Ni. 16/52, Dalhana commentary)

इयं जिह्वामूलस्योपरिष्ठात्, उपजिह्वा तु अधस्ताज्जिह्वायाः। (Su. Ni. 16/52, Gayadasa commentary)

5.7 Jihva Changes in Mukhapaka

Pittaja and *Raktaja Mukhapaka* are characterised by burning, dryness and a bitter taste, with ulcers resembling alkali burns (A.H. Uttara 21/61) - correlating with a bright red, tender, ulcerated and dry tongue. *Kaphaja Mukhapaka* presents with sweetness of the mouth and itchy, slimy-coated ulcers, sometimes with bluish-white swelling (A.H. Uttara 21/62-63) - correlating with a thick white coating, moist and slimy tongue, and swelling.

Mool Shlokas (Section 5.7)-

मुखस्य पित्तजे पाके दाहोषे तिक्तवक्त्रता। क्षारोक्षितक्षतसमा व्रणास्तद्वच्च रक्तजे॥ (A.H. Uttara 21/61)

कफजे मधुरास्यत्वं कण्डूमत्पिच्छिला व्रणाः। अन्तःकपोलमाश्रित्य श्यावपाण्डु कफोऽर्बुदम्॥ कुर्यात्तद्घटितं छिन्नं मृदितं च विवर्धते॥ (A.H. Uttara 21/62-63)

मुखपाको भवेत्सास्त्रैः सर्वैः सर्वाकृतिर्मलैः। पूत्यास्यता च तैरेव दन्तकाष्ठादिविद्विषः॥ (A.H. Uttara 21/63-64)

5.8 Jihva Arishta Lakshana (Fatal Prognostic Signs)

Ayurveda assigns definite prognostic weight to the tongue through the concept of *Jihva Arishta Lakshana*. *Acharya Charaka* describes '*Preta-Jihva*' - a tongue that is stiff, insensate, heavy, covered with thorn-like projections, dark (bluish-black), dry or swollen, and spreading in nature, resembling the tongue of a corpse and indicating impending death (*Cha. Ind. 8/14*). *Yogaratanakara* similarly states that a patient whose tongue turns black, becomes heavily coated, swollen or rough soon loses his life (*Y.R. Purva Khanda 86/20*), and separately describes black discoloration of the tongue together with saffron-like facial discoloration as indicating very poor survival (*Y.R. Purva Khanda 1/140*), and black tongue together with alternating burning/cold sensations, phlegm in the throat, loss of taste, saffron-coloured eyes and an irregular pulse as an incurable, terminal presentation (*Y.R. Purva Khanda 1/142*).

Arishta Jihva Lakshana	Classical Term	Prognostic Significance
Stiff, insensate, heavy tongue	<i>Stabdha, Nishchetana, Gurvi Jihva</i>	Loss of vitality (<i>Ojakshaya</i>); corpse-like tongue (<i>Preta-Jihva</i>)
Thorny, dry or swollen tongue	<i>Kantakopachita, Suska, Suna Jihva</i>	Severe <i>Dhatu</i> depletion; poor prognosis
Black / dark discoloration	<i>Krishna / Syama Jihva</i>	Among the most serious and repeatedly emphasised fatal signs
Heavy coating with roughness	<i>Anulipta, Karkasa Jihva</i>	Indicates <i>Ama</i> accumulation with exhausted vitality

Mool Shlokas (Section 5.8)-

स्तब्धा निश्चेतना गुर्वी कण्टकोपचिता भृशम्। श्यावा शुष्काऽथवा शूना प्रेतजिह्वा विसर्पिणी॥१४॥ (Cha. Indriya 8/14)

कृष्णा तथाऽनुलिप्ता च जिह्वा शूना च यस्य वै। कर्कशा वा भवेद्यस्य सोऽचिराद्विजहात्यसून्॥ (Y.R. Purva Khanda 86/20)

रसनायां कृष्णभावो मुखं कुङ्कुमसन्निभम्। जिह्वा स्वल्पखरस्पर्शा दुर्लभं तस्य जीवितम्॥१४०॥ (Y.R. Purva Khanda 1/140)

रात्रौ दाहोऽभितपति दिवा जायते शीतलत्वं कण्ठे श्लेष्मा विरसवदनं कुङ्कुमाकारनेत्रे। जिह्वा कृष्णा वहति च सदा स्थूलसूक्ष्मा च नाडी तद्भैषज्यं स्मरणमधुना रामरामेति नाम्नः॥१४२॥ (Y.R. Purva Khanda 1/142)

6. MODERN PERSPECTIVE ON TONGUE ANATOMY AND EXAMINATION

6.1 Applied Anatomy

The tongue is a muscular organ composed of four intrinsic muscles (superior longitudinal, inferior longitudinal, transverse and vertical), which alter its shape, and four extrinsic muscles (genioglossus, hyoglossus, styloglossus and palatoglossus), which alter its position - protrusion, depression and retraction respectively, with the palatoglossus assisting elevation. Arterial supply is chiefly through the lingual artery (a branch of the external carotid artery), with additional contribution from the tonsillar and ascending pharyngeal branches. Venous drainage occurs mainly via the deep lingual vein into the lingual vein and thence the internal jugular vein. Lymphatic drainage follows a well-defined pattern - the tip to bilateral submental nodes, the anterior two-thirds unilaterally to submandibular nodes, and the posterior one-third bilaterally to the jugulo-omohyoid nodes and upper deep cervical nodes, a pattern of considerable importance in the spread of tongue malignancy. Motor supply is via the hypoglossal nerve (except palatoglossus, supplied by the accessory nerve through the pharyngeal plexus); general sensation of the anterior two-thirds is via the lingual nerve and taste via the chorda tympani, while the posterior one-third receives both general sensation and taste via the glossopharyngeal nerve, and the extreme posterior part via the vagus nerve.

6.2 Tongue Examination in Modern Clinical Practice

Systematic clinical assessment of the tongue evaluates its colour, size, shape, surface characteristics, papillary pattern, coating, moisture, mobility and the presence of ulcers, fissures, swellings or pigmentation - findings that assist in identifying nutritional deficiency, metabolic disease, neurological disorders, infection, immune disease and systemic illness.

Finding	Representative Modern Correlations
Macroglossia	Down syndrome, acromegaly, hypothyroidism (myxoedema), amyloidosis, angioedema, tongue tumours
Microglossia	Pseudobulbar palsy, facial hemiatrophy, severe dehydration, starvation
Blue tongue	Central cyanosis (reduced arterial oxygen saturation)
Scarlet-red tongue	Niacin (Vitamin B3) deficiency

Finding	Representative Modern Correlations
Dark red tongue	Polycythaemia, riboflavin (Vitamin B2) deficiency
Black tongue	Melanoglossia; bismuth, iron or certain antibiotic (e.g., penicillin) therapy
Slate-blue pigmentation	Haemochromatosis
Brownish-black pigmentation	Addison's disease, Nelson's syndrome, Peutz-Jeghers syndrome, chronic malnutrition
Dry tongue	Dehydration, haemorrhage, uraemia, anticholinergic drugs, Sjogren's syndrome
Fissured (scrotal) tongue	Down syndrome, Vitamin B-complex deficiency, acromegaly
Geographic tongue	Benign migratory glossitis with erythematous, serpiginous patches
Hairy leukoplakia	Epstein-Barr virus infection; marker of HIV/AIDS-related immunosuppression

This modern semiology parallels several classical descriptions remarkably closely for instance, the association of a black tongue with severe, often terminal illness in both systems, and the shared recognition of dryness, coating and discoloration as indicators of systemic derangement.

7. HISTORICAL AND CROSS-CULTURAL PERSPECTIVE: CORRELATION WITH TRADITIONAL CHINESE MEDICINE

Tongue diagnosis has a documented history in Traditional Chinese Medicine dating to the Shang Dynasty (circa 1600-1000 BCE), and TCM constitutes the most extensively studied cross-cultural parallel to *Jihva Pariksha*. In TCM, the colour and shape of the tongue body are considered to reflect an individual's underlying constitution (paralleling *Prakriti* in *Ayurveda*), while the tongue coating - regarded as a by-product of gastric, duodenal and splenic metabolic activity - is considered to reflect the current pathological state (paralleling *Vikruti*). Since the early 1980s, Chinese researchers have systematically studied correlations between tongue signs and malignancy; a large multi-centre project by the China TCM Society, China Cancer Society and TCM Diagnosis Association, involving over twelve thousand cancer patients together with non-cancerous and normal controls, reported statistically significant differences in tongue colour, coating, shape and dorsal features between groups.

Both traditions describe a topographic mapping of the tongue onto internal organs. In an integrative *Ayurveda*-TCM framework, the anterior third of the tongue is said to correspond to *Kapha* (Earth/Water) and to the 'upper burner' of TCM, reflecting the heart and lungs; the middle third to *Pitta* (Fire/Water) and the 'middle burner', reflecting the spleen, stomach, liver and gallbladder; and the posterior third to *Vata* (Air/Ether) and the 'lower burner', reflecting the kidneys, bladder and large intestine. The interior of the tongue is regarded as the seat of *Agni*, governing the stomach, small intestine and large intestine, while the exterior surface reflects the status of the heart, lungs, thyroid, liver, spleen, pancreas, gallbladder, adrenal glands and kidneys.

Detailed constitutional colour and coating charts used in this integrative approach associate a pale tongue with blood deficiency or low *Pitta/Agni*; a red tongue with excess heat, with or without dampness depending on associated coating; bluish-purple discoloration with blood stagnation from internal cold; and colour changes localised to the tip, sides or root with disturbance of specific organ systems (heart/lung, liver/gallbladder, and kidney/large intestine respectively). Coating is similarly interpreted by colour (white indicating cold, yellow indicating heat), thickness (indicating the quantum of *Ama* or pathogenic accumulation) and moisture (excess moisture indicating *Kapha*/damp accumulation or *Agni* deficiency, and dryness indicating *Vata* derangement or fluid depletion). Both traditions concur that visual tongue inspection is inexpensive, safe and repeatable, but that current practice in both *Ayurveda* and TCM remains largely experience-based and subjective, with limited transferability of expert qualitative skill and no standardised quantitative or imaging-based framework - precisely the gap that a structured tongue-image database is intended to address.

8. DISCUSSION

The classical literature converges on a consistent physiological model: the tongue, being predominantly composed of *Jala Mahabhuta*, richly vascular, and nourished directly by *Rasa Dhātu*, functions as a continuously updated external display of internal *Dosha*, *Dhātu*, *Agni* and *Ama* status. This model explains why *Dosha*-specific tongue changes (dryness and fissuring in *Vata*, redness and burning in *Pitta*, pallor and coating in *Kapha*) are so consistently reproduced across independent classical sources - *Charaka Samhita*, *Ashtanga Sangraha*, *Ashtanga Hridaya* and *Yogaratanakara* - despite being composed at different periods and in different textual traditions.

The convergence with modern medicine is equally notable. Both systems recognise tongue coating as a marker of gastrointestinal and metabolic derangement (*Ama* versus, for example, coated tongue in enteric fever), tongue dryness as a marker of dehydration or reduced secretion, and tongue discoloration - particularly black discoloration - as a marker of severe, often terminal, systemic illness. The independent development of a remarkably similar tongue-based diagnostic and prognostic framework in Traditional Chinese Medicine strengthens the case that tongue examination captures genuine, reproducible physiological information rather than being a culturally specific artefact.

At the same time, the review highlights an important asymmetry: while the classical descriptions are rich, internally consistent and prognostically detailed, they have rarely been tested with modern epidemiological or diagnostic-accuracy methodology. Correlating specific, named *Jihva Lakshana* (for example, *Preta-Jihva*, *Krishna Jihva*, *Anulipta Jihva*) with objective clinical or laboratory endpoints, using a standardised photographic or digital-imaging protocol, represents the most direct route to converting this classical descriptive wisdom into a validated, reproducible clinical tool.

9. CONCLUSION

Jihva Pariksha is a scientifically coherent, clinically practical and prognostically meaningful component of *Ayurvedic* diagnosis. Its foundation rests on a well-defined *Ayurvedic* anatomy and physiology of the tongue (its embryological origin, its status as the seat of *Rasanendriya*, its predominant *Jala Mahabhuta* composition and its dual sensory-motor function), a clearly described normal (*Prakrita*) state, systematic *Dosha*-wise and disease-specific abnormal (*Vaikrita*) findings, a distinct nosology of primary tongue diseases (*Jihva Roga*), and a well-articulated set of fatal

prognostic signs (*Jihva Arishta Lakshana*). These classical descriptions correlate closely with the anatomy, physiology and clinical semiology of the tongue in contemporary medicine, and with the independently developed tongue-diagnosis tradition of Traditional Chinese Medicine, supporting the view that visual tongue examination captures genuine and clinically relevant physiological information. The principal barrier to wider evidence-based use of *Jihva Pariksha* is not a lack of classical content but a lack of standardisation, clinical validation and organised documentation. Development of a structured database of tongue images and correlated clinical parameters - as envisaged by the present body of work - is therefore a necessary next step to reduce observer variability, support clinical research, and provide the foundation for future digital and artificial-intelligence-assisted applications of this simple, safe, inexpensive and time-honoured diagnostic method.

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11. CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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