



## **An Approach to the Diagnosis of Hridaya Roga (Cardiac Disorders) through Sphutita Jihwa (Fissured Tongue) Criteria - A Retrospective Study**

**Sandeep Kumar<sup>1</sup>, Sachin Deva<sup>\*2</sup>**

1. 3<sup>rd</sup> Year PG Scholar, PG & PhD Department of *Roga Nidana Evum Vikriti Vigyan*, Parul Institute of *Ayurved*, Parul University, Limda, Vadodara, Gujarat - 391760, India
2. Associate Professor & HOD, PG & PhD Department of *Roga Nidana Evum Vikriti Vigyan*, Parul Institute of *Ayurved*, Parul University, Limda, Vadodara, Gujarat - 391760, India

**Correspondence Email:** [sachin.deva@paruluniversity.ac.in](mailto:sachin.deva@paruluniversity.ac.in)

### **ABSTRACT**

*The aim of physical examination is to ascertain the probable disease & the importance of these objective findings is increased when they confirm the disease which is actually present. As in this modern era of scientific advancement a large number of diagnostic tools and test are available; but still the physical examination has its own importance in clinical practice. In the Ayurvedic texts there is the description of Ashtasthana Pariksha (eight fold examination) which includes the examination of Nadi (Pulse), Mootra (Urine), Malam (Fecal matter), Jihwa (Tongue), Sabdam (Voice of patients), Sparsham (Touch), Druk (Eyes & Vision) & Akriti (General body build). Tongue examination is one of the important but neglected tool in clinical examination. Clinician pay very less attention to this tool of examination in clinical practice that is the reason not much literature related to it is available. In this retrospective study an attempt is made to establish the relation between the tongue fissures and Hridaya Roga (cardiac disorders). Objective: The aim of this retrospective study is to investigate the association between tongue fissures and the cardiovascular disease. It was a single case study, in this study a diagnosed patients of essential hypertension was taken. Clinical signs and symptoms were significantly reduced.*

**Keywords:** *Jihwa, Tongue, Pariksha, Examination, Ashtasthana, Hridaya Roga, Tongue Fissure*

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### **INTRODUCTION**

Clinical examination is performed in *Ayurveda* to establish the underlying cause of the illness and the treatment options. The existence of sickness in our body suggests a *Dosha* imbalance. Various useful diagnostic techniques have been discussed in Ayurvedic literature. One of them is *Ashtasthana Pariksha*, and the other significant methods stated are:

- ❖ *Trividha Pariksha* (Three-fold examination), which involves inspection, inquiry, and palpation [1,2].
- ❖ *Chaturvidha Pariksha* (Four-fold examination): *Pratyaksha* (Direct observation), *Anumana* (Inferential), *Aptopadesa* (Authoritative instruction), and *Yukti* (Experimental evidence) are all part of the *Chaturvidha Pariksha* (Four-fold examination).
- ❖ *Shadvidha Pariksha* (six-fold examination) refers to a physical examination that includes all five sense organs as well as *Prasna* (history taking) [3].
- ❖ *Dasavidha Pariksha* (Ten fold examination) includes assessment of *Prakrti* (Body constitution), *Vikrti* (Pathology), *Sara* (Existence of *Dhatus*), *Samhanana* (Compactness of body), *Pramana* (Body measurement), *Satmya* (Homologation), *Satva* (Mental faculties), *Ahara Sakti* (Power of assimilation), *Vyayama Sakti* (Power of exercise) and *Vaya* (Age) [4].

The combination of *Trividha Pariksha* (threefold examination) and *Jihwa Pariksha* (tongue examination), which is one of the key diagnostic methods described under *Ashtasthana Pariksha*, will help us comprehend the illness status better.

*Agnimandya* (dysfunction of the digestive fire) is the fundamental cause of all ailments, according to *Ayurveda*. The *Mandagni* (abnormal functioning of the digestive fire) leads to poor food digestion and the production of *Ama* (Toxins from undigested food). When *Ama* is combined with *Doshas*, it affects bodily

tissues (*Dhatus*), vitiating their properties and causing a variety of pathophysiological processes and this can also be seen on the *Jihwa* as per *Brihn-nighanturatnakar* [5].

**Jihwa Pariksha:**

The presence of disease in *Ayurveda* indicates a *Dosha* imbalance, which can be seen in *Jihwa* as follows: if tongue is affected by *Vata*, it will be *Sheeta* (cold), *Khara* (rough) and *Sphutita* (fissured), if tongue is affected by *Pitta*, it will be *Rakta & Shyam Varna* (red or blackish in colour), and if tongue is affected by *Kapha*, it will be *Shweta* (coated), If *Tridosha* is involved, it looks as a charred organ that is *Krishna* (black in colour), *Shushka* (dry), and *Sakantak* (very rough to the touch) If two *Doshas* are engaged, characters will follow them [6,7].

There are various criteria available for tongue examination like tongue coating, color, size, shape, margins, texture and fissure, but in this study main concentration area was the tongue fissures.

**Tongue Fissures:**

On the dorsal surface of tongue fissures are found and in different persons the pattern of these fissures can be different. In *Ayurvedic* literature *Sphutita Jihwa* is the characteristic feature of *Vata* vitiation.

Tongue fissures are classified into following categories according to their pattern [8].

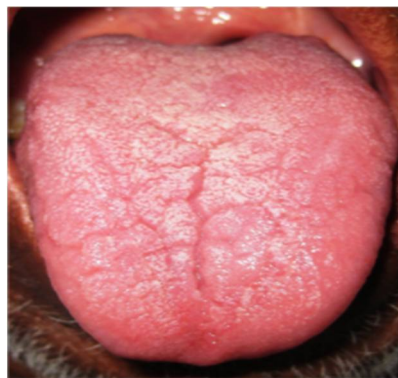
1. Central longitudinal pattern
2. Central transverse pattern
3. Lateral longitudinal pattern
4. Branching pattern
5. Diffuse pattern



Central longitudinal pattern



Lateral longitudinal pattern



Branching pattern



Diffuse pattern



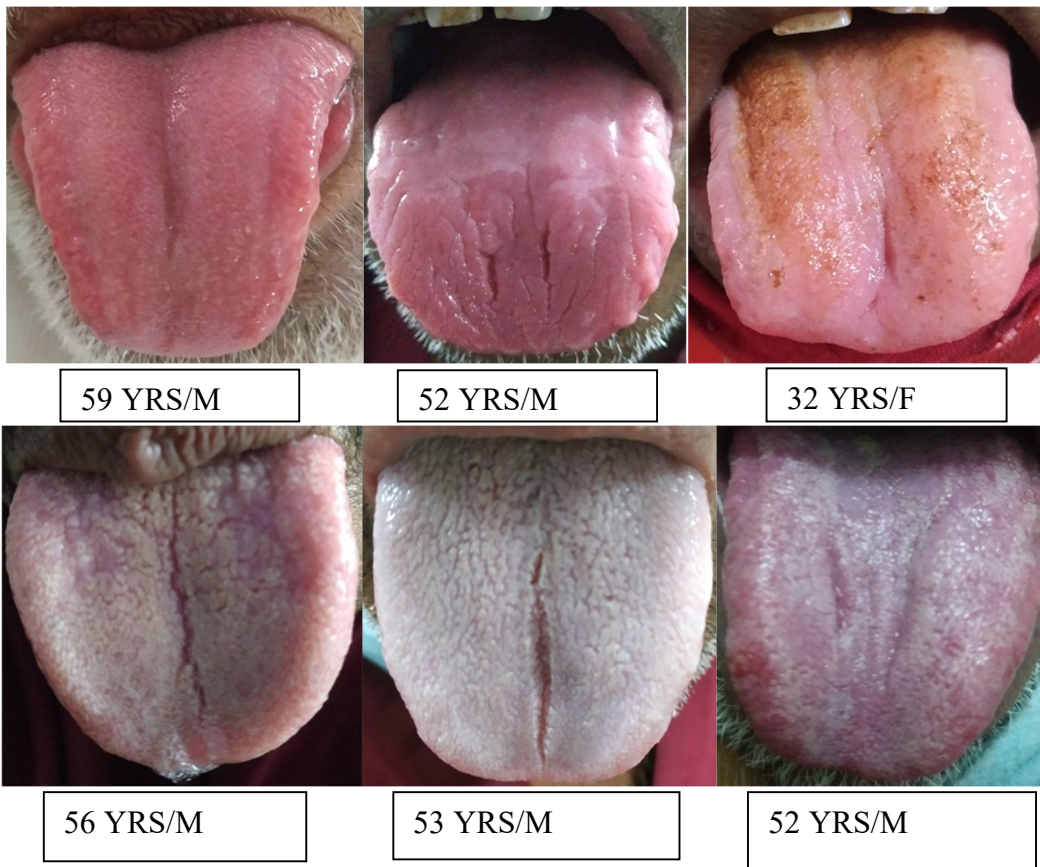
Central transverse pattern

Fig 1: Types of Tongue Fissures

**MATERIAL AND METHODS**

In this study 60 diagnosed patients of cardiac diseases who were aged between 18 years to 60 years irrespective of gender, socio-economic status was examined. The study participants gave their informed consent to have their tongues photographed. The study only included patients who gave their informed consent. This was a retrospective study of *Hridaya Roga* patients who had been diagnosed.

Fig 2: Some Patient's Tongue Images with longitudinal Pattern



**RESULT AND DISCUSSION**

Out of total 60 patients with *Hridaya Roga*, 38 (63.33%) were having fissured tongue. Based on observations; Central longitudinal pattern in 31.66 % patients, Lateral longitudinal pattern in 11.66 %, Central+ Lateral longitudinal pattern in 10%, Diffuse pattern in 6.6 % , Branching+ Central+ Lateral longitudinal in 1.6% and Central Transverse + Central longitudinal 1.6% patients were found. In this finding this is observed that most of the patients (56.52 %) with fissured tongue had longitudinal pattern either central, lateral or the both. *Sphutita* Tongue is the manifestation of *Vata* vitiation as mentioned by *Yogratnakar* due to the *Ruksha, Khara, Parusha* properties of *Vata* and secondly in *Hridaya Roga Vata*



vitation is mandatory as *Hridaya* is the seat of *Prana Vayu* and *Vyan Vayu* and in chronic cardiac disorders there is decrease in the working capacity of heart, as in chronic cardiac failure there is decrease in the ejection fraction which is also said to be loss of *karma* of *Vata* & in the Rheumatic Heart Disease there are degenerative changes with valvular stenosis and sclerosis which comes under *Dhatu Kshaya* which leads to *Vata Prakpa*. In Coronary artery diseases there is atherosclerosis or thrombus/embolus which form the blockage in the lumen of coronary artery which can be correlated with the byproduct of *Aam* and comes under *Srotoavrodha (Avarana)* which ultimately leads to *Vata* vitation. In a research study it has proved that person with carotid atherosclerosis had significantly higher coronary heart disease risk, stroke risk than those without carotid atherosclerosis [9] and lingual artery which supply the tongue and is a branch of external carotid artery may have some relation in it which needs further research to prove.

**Table 1, Pattern of Fissuring Found**

| No fissures | Central longitudinal | Lateral longitudinal | Diffuse | Central+ Lateral longitudinal | Branching+ Central+ Lateral longitudinal | Central Transverse + Central longitudinal |
|-------------|----------------------|----------------------|---------|-------------------------------|--|---|
| 36.66%      | 31.66%               | 11.66%               | 6.6%    | 10%                           | 1.6%                                     | 1.6%                                      |

## CONCLUSION

*Vitiated Vata* having properties of *Ruksha*, *Khara*, *Parusha*, which result in the fissured tongue. *Vata Prakopa* is the result of *Dhatu Kshaya* and *Avarana* and in chronic heart diseases; *Vata Prakopa* is due to the *Dhatu Kshaya* while in most of the acute heart diseases like ACS (Acute coronary Syndrome), *Avarana* (Obstruction) is the prime cause of *Vata Prakopa*. We can be hypothesized that when there are any pathophysiological changes in the heart, Lingual artery may be affected, so that changes can be manifested on the dorsum of tongue as fissures. In this study this is found that there is some association of longitudinal type of tongue fissure with the *Hridaya Roga* and to strengthen this claim, this has to be extensively studied in large group of population. This diagnostic criterion can be a good clinical tool for early detection of cardiac disorders in future.

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