



ANATOMICAL CHANGES IN JIVHA SHARIR WITH SPECIAL REFERENCE TO (PANDU) & ITS MANAGEMENT BY NISHA LOHA CHURNA, CLINICAL INTERVENTIONAL STUDY

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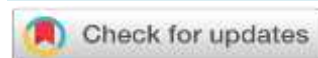
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ABSTRACT

Sharir Rachana is the branch of Ayurveda that deals with the knowledge of the structure of the human body. *Jivha* is located at the starting of the Gastrointestinal tract and it is also the mirror of the Digestive system. Among different disorders of nutritional origin, anaemia is one such disorder that is due to a large number of causes, including nutritional deficiencies i.e lack of essential minerals, and vitamins in the diet. **Objective** - To Assess the anatomical changes of *Jivha sharir* in anaemia. To Assess the effect of *Nisha Loha Churna* in Anaemia. **Method** - *Nisha loha churna* is the compound preparation in the treatment of *Pandu Roga* and it is mentioned in *Panduchikitsiya adhyaya* of *Bhaishjya Ratnavali*. The present study was carried out to assess the efficacy of *Nisha Loha Churna* in *Pandu Roga* (Iron deficiency anaemia). **Result & Conclusion** - The effect of treatment was assessed both clinically & proved significant by Paired t-test.

Keywords: Ayurveda, *Pandu*, Anaemia, *Nisha Loha Churna*.

INTRODUCTION

Ayurveda is one of the most ancient systems of life, health, and cure. This system of knowledge flourished over over 5000 years and has had an unbroken tradition of practice down the ages update. *Sharir* means 'human body' and *Rachana* means 'Structure'. So *sharir Rachana* is the branch of Ayurveda that deals with the knowledge of the structure of the human body. *Acharya Charaka, Sushruta, and Vagbhata* have mentioned *shareerasthana* separately in their respective *samhitas*. Physicians who want to become perfect in the field of science of life must be in the science of human anatomy. Every organ in the body is important in its own way. Among those, sense organs play a crucial role. According to Ayurveda, *Jivha* is an *Indriya* among *panchendriya*.¹ *Indriyas* are capable of perceiving their objects only when they are supported by the mind, through which knowledge is perceived or memorized.² *Jivha* is located at the starting of the Gastrointestinal tract and it is also the mirror of the Digestive system. It is mainly affected by enumerable diseases like its shape, colour, moisture, movement, and coating on its surface. It changes from normal to abnormal. *Jivha Parikshan* (Tongue examination) is mentioned by *Acharya Yogaratnakara* in *Ashtavidha pariksha*.³ *Jivha pariksha* reveals our main constitution (normal *prakruti*), imbalance of *doshas*, state of *agni* (digestive fire), and *koshtha* (*Annavaaha srotas*). According to the World Health Report, -2002 WHO, iron deficiency anaemia is one of the diseases among the top 10 selected risks to health.⁴ According to our Ayurveda, a disease associated with *Raktalpata* and *Panduta* of the body is designed by the name *Pandu Roga*. *Acharya Sushruta* believed vitiation of *Rakta* in this disease, which is a very scientific approach of an ancient scholar towards this disease. *Pandu Roga* has

similarities with that anaemia in all aspects such as etiological factors, signs, symptoms, and therapeutics. *Nisha loha churna* is the most familiar compound preparation in the treatment of *Pandu Roga* and it is mentioned in *Panduchikitsiya adhyaya* of *Bhaishjya Ratnavali*.⁵ The pharmacodynamic study of individual constituents of this drug has revealed a wide range of action over the etiopathology of *Pandu Roga*.

Aim: To observe the efficacy of *Nisha Loha Churna* in regaining normal anatomy in *Pandu W.S.R.* to Anaemia.

Objective:

- To Assess the anatomical changes of *Jivha sharir* in anaemia.
- To Assess the effect of *Nisha Loha Churna* in Anaemia.

❖ **Review of Literature:**

▪ **Anatomical Changes in Tongue in Anaemia**

In anaemia, various anatomical changes occur in the tongue. There are alterations in the smoothness of the tongue, and the colour of the tongue and tongue becomes pale. Also, there are some disease conditions like Acute glossitis and acute cheilitis.

● **Acute Glossitis**

Glossitis is a problem in which the tongue is swollen and inflamed. This often makes the surface of the tongue appear smooth.

● **Angular Cheilitis**

Angular cheilitis is a condition that causes red, swollen patches in the corners of your mouth where your lips meet and make an angle. Other names for it are perleche and angular stomatitis.

Table 01: Nisha Loha Churna

Sr. No.	Drug	Botanical Name	Natural Order	Rasa	Veerya	Vipaka	Guna
1	Haridra	Curcuma longa	Zingiberaceae	Tikta, Katu	Ushna	Katu	Ruksha, Laghu
2	Daruharidra	Berberis aristata	Berberidaceae	Tikta, Kashaya	Ushna	Katu	Laghu, Ruksha
3	Haritaki	Terminalia chebula	Combretaceae	Kashayapradhana Lavanavarjita Pancharasa	Ushna	Madhura	Laghu, Ruksha
4	Bibhitaki	Terminalia belirica Roxb.	Combretaceae	Kashaya	Ushna	Madhura	Laghu
5	Amalaki	Emblica officinalis	Euphorbiaceae	Amla pradhana, pancha Rasa (except lavana)	Sheeta	madhura	Guru, Ruksha
6	Kutaki	Picrorhiza kurroa Royle	Scrophulariaceae	Tikta	Sheeta	Katu	Ruksha, Laghu
7	Loha	Ferrum	-	Tikta, Madhua, kashaya	sheeta		Sara, Guru, Ruksha

❖ **Material and Methods:**

Study Design: an open prospective clinical study.

Location of the study: OPD and IPD Patients of MES Ayurved Mahavidyalaya, Ghanekunth, Lote, Tal – Khed.

• **Study Population:** Study will be carried out on the patients suffering from the sign and symptoms of *Pandu* those attending IPD and OPD of MES Ayurved Mahavidyalaya, Ghanekunth, Lote, Tal – Khed.

▪ **SELECTION CRITERIA:-**

• **INCLUSION CRITERIA :**

1. Age – Patients between the age of 20-50 years.
2. Gender – Both Male and female Patients will be selected.
3. Patients which are clinically diagnosed with anaemia as per selection criteria.
4. Subjects having haemoglobin in between 6 gm% to 11gm%.

• **Exclusion Criteria:**

1. The patients suffering from the following condition were excluded from the study
2. Liver cirrhosis.

3. Bleeding Haemorrhoids
4. Tuberculosis
5. HIV /HBSAg -Patients with D.M. heart Disease and hypertension
6. Worms
7. Anaemia in pregnancy.

• **Withdrawal Criteria:**

The Patients will be withdrawn from the trial if

1. If the Patient has become un-cooperative
2. The Patient is not willing to continue the trial or to follow the assessment schedule.

Sampling Technique: Simple Random Sampling Technique

Intervention - Nisha Loha Churna

Dose: 500 mg *churna* once a day

Kal: *Paschyat bhakt*

Route of Administration: Orally

Anupan: *Madhu* 1 Tsp and *Goghrita* 2 Tsp

Duration: 60 Days

Follow Up: after 60 days

• **Preparation Of Drug :**

Coarse *Churnas* of *haridra*, *Daruharidra*, *haritaki*, *Bibhitaki*, *Amalaki*, and *Kutaki* each of 1 *Tola* (10 gm) and *Loha Bhasma* 6 *Tola* (60 gm) will be

taken in *Khalva Yantra* and fine powder (*Churna*) was prepared.⁶

Table 02: Symptoms

Gradations and scoring will be done as follows

Sr.no.	Characters	Score	Score details
1.	Acute Glossitis	0 1 2	Mild Moderate Severe
2.	Smooth Tongue	0 1 2	Mild Moderate Severe
3.	Paleness of tongue	0 1 2	Mild Moderate Severe
4.	Acute Chelitis	0 1 2	Mild Moderate Severe
5.	Colour	0 1 2	Mild Moderate Severe

❖ **Observations and Result:**

Table 03: Age-wise Distribution of Patients

Sr. No.	Age	No. Of Patients	Percentage
1.	20 – 30	24	34.28 %
2.	31 – 40	23	32.85 %
3.	41 – 50	23	32.85 %
Total		70	100 %

Graph no. 1: Agewise Distribution

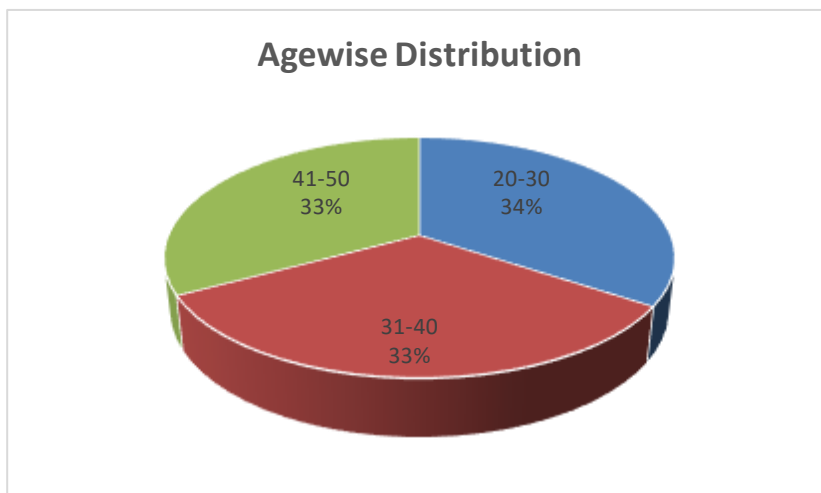
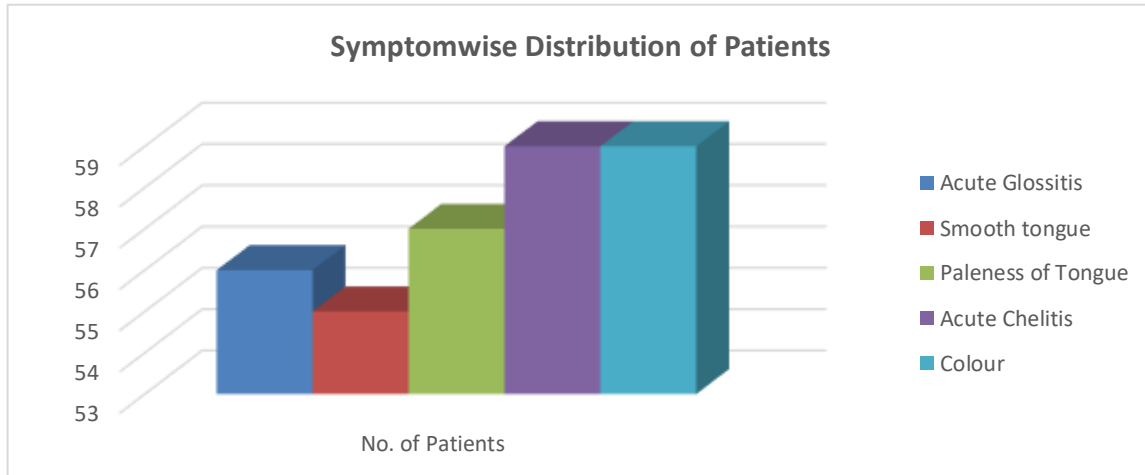


Table 04: Symptom-wise distribution of patients

Sr. No.	Symptom	No. of Patients	Percentage
1.	Acute glossitis	56	80 %
2.	Smooth Tongue	55	78.57 %
3.	Paleness of Tongue	57	81.42 %
4.	Acute Chelitis	59	84.28 %
5.	Colour	59	84.28 %

Graph 02: Symptom-wise Distribution of Patients



■ Results

Table 05: Effect on Symptoms:

Symptoms	Mean		Difference in means	Paired 't'-test				
	BT	AT		S.D.	S.E.M.	't'	'p-value'	Remark
Acute Glossitis	1.25	0.72	0.53	0.70	0.083	6.36	<0.001	S
Smooth Tongue	1.14	0.8	0.34	0.83	0.09	3.80	<0.001	S
Paleness of Tongue	1.3	0.6	0.7	0.748	0.089	7.86	<0.001	S
Acute chelitis	1.38	0.4	0.98	0.768	0.091	10.83	<0.001	S
Colour of Tongue	1.32	0.45	0.87	0.774	0.092	9.47	<0.001	S

Magnitudes of all symptoms like Acute Glossitis, smooth tongue, paleness of tongue, Acute Chelitis, and colour of Tongue in patients of *pandu* before and after administration of *Nisha Loha Churna* were assessed and analyzed statistically. The patient who received *Nisha Loha Churna* showed highly significant ($p < 0.001$) improvement and a decrease in mean score after treatment.

DISCUSSION

The formation of *rakta*, and its physiological role has attracted scientific attention since the earliest times. Ayurvedic treatises of antiquity give a concise account of the formation of *rakta*. The *rakta* is basically derived from *rasa*. The nourishment of *rakta* by the nutrients derived from *rasa dhatu* can be favorably correlated to the modern description of the role of external factors which comprise Iron, Vit-C, Vit-K, Vit-B₁₂, Folic acid, etc., derived from food. The internal factors like Castle's Intrinsic factor can be

compared to the Ranjaka pitta present in the amashaya as per Asthanga Sangraha kara. *Pandu* has various etiologies like *asatmya bhojana*, *Atimadyapana*, *kshara*, *nishpava*, *pinyaka*, *krodha*, and *bhaya* that increase *Vata* and *Pitta*. These are *Apatarpana karaka*. This *apatarpana* may be grossly taken as, inadequate dietary intake which can cause Anaemia. *Jivha* is the organ that tickles the rasas and helps in the perception of the sense of taste. The *Jivha* is formed from *kapha*, *rakta* and *mamsa*. The *Jivha* is pinkish-red, broad, and thin. *Jivha* is the only organ that is both *Gnyanendriya* and *Karmendriya*. In anaemia, the normalcy of the tongue is changed. It's colour, normal texture, and smoothness change from normal to abnormal. Also, some disease condition also occurs. Acute Glossitis is a diseased condition in which the tongue is swollen and inflamed. Angular chelitis is a diseased condition in which there are red, swollen patches in the corner of the mouth where lips meet and make an angle.

The signs and symptoms of *Pandu* and blood investigations were considered for the diagnosis. 70 patients between the age group 20 to 50 years were given Nisha Loha Churna 500 mg once a day after a meal for a period of 2 months. There were 10 dropouts in the study at various stages of the Clinical trial.

The age group selected for the study was 20 – 30 yrs. 24 patients were from the age group 20 -30 years. 23 patients were from the age group 31 -40 years. 23 patients were from the age group 41 -50. The incidence of sex showed that 25 patients were females, and 45 patients were male. 11 patients were students. 18 Patients were housewives. 30 were Employee. 11 patients were Businessman. 13 patients were o *Vatapradhan Pitta prakruti*. 14 patients were of *Pittapradhan vata Prakruti*. 22 patients were of *Pittapradhan Kapha Prakruti*. 7 patients were of *Kaphapradhan Pitta Prakruti*. 4 Patients were of *Vatapradhan kapha Prakruti*. 10 patients were of *Kaphapradhan Vata Prakruti*. The effect of treat-

ment was assessed both clinically. It is proved as statistically significant by Paired t-test.

CONCLUSION

Pandu is due to *Tridosha dushti* and among them, it's the *Pitta dosha* taking lead in the manifestation of the disease. All dhatus (predominantly *rasa* and *Rakta dhatu*) and *ojas* are affected. *Pandu vyadhi* has changed in *sharir Rachana* of the tongue like changes in smoothness, colour, and occurrence of symptoms like paleness of the tongue, acute glossitis, acute chelitis, etc. In *Pandu Vyadhi*, there is a change in the normalcy of *sharir Rachana* of *Jivha*. There was a marked reduction in the mean scores of all the parameters of the assessment. The herbo-mineral drugs Nisha Loha have proved to be quite effective in the treatment of *Pandu* without involving undesirable side effects. Along with the main line of treatment nourishing diet must also be given to all malnourished patients.

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