



JIHWA PAREEKSHA IN SAAMA AVASTHA OF AMLAPITTA: A CLINICAL STUDY

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ABSTRACT

Ayurveda emphasizes agni-vaishmya as a cause of manifestation of vyadhi (disease). The undigested food due to vitiated agni results in apakwa-ahara-rasa, that does not get absorbed and transformed is termed as ama, is said to be root cause for diseases. Ama combines with dosha to form amadosha that acquires more shukratva, further forming amavisha, paving to varied manifestations in diseases. Therefore, analyzing saama and niramavastha is essential for better diagnosis and management. Amlapitta, one among the annavaha-sroto-vikara manifests due to agni-vaishmya. Jihwa pareeksha (tongue examination) plays an important role to assess various changes in jihwa. It reflects the status of annavaha-srotas and ama. Thus, the present study aims at observation of manifestations on jihwa (tongue) by jihwa pareeksha in saama avastha of Amlapitta. Patients of Amlapitta were screened and subjected for jihwa pareeksha. Diagnosis of Amlapitta assessed by samanya lakshanas of Amlapitta and their saama avastha was evaluated by samanya lakshanas of Ama. From study, it is concluded that the manifestations elicited by jihwa pareeksha can be utilized for assessment of saama avastha in Amlapitta by clinical examination.

KEY WORDS: Ama, saama avastha, amlapitta, jihwa pareeksha

INTRODUCTION

Agni is responsible for maintenance of health. Disturbance in agni leads to ama resulting in manifestation of vyadhi¹. Concept of ama is a unique contribution of ayurveda. Ama results from mandagni and is said to be the root cause for disease². The undigested food due to mandagni results in apakwa ahara rasa, that does not get absorbed and transformed results in ama³. Ama combines with dosha to form saama dosha. This saama dosha further acquires toxicity leading to shukratva, forming ama visha and resulting in many diseases. Therefore, saama and nirama avastha assessment is very important in disease diagnosis. Saama avastha conditions are distinguishable by clinical features like srotoavarodha (obstruction in srotas), balabramsha (decrease in strength or immunity), gourava (heaviness of the body and head), anilamoodhata (disturbance in normal movements of vata), aalasya (lethargy), apakthi (indigestion), nisteevana (excessive salivation), malasanga (obstruction to urine, stool and other waste product), aruchi (tastelessness) and klama⁴(exhaustion without activity).

Jihwa pareeksha can be utilized as a tool to reflect the status of annavaha srotas and ama. Jihwa pareeksha explained by Yogaratnakara under asta-sthana pareeksha is an important tool in clinical examination⁵. It primarily incorporates aspects of prathyaksha⁶ pareeksha, darshana pareeksha⁷ and prashna pareeksha.

Amlapitta is a disorder of annavaha srotas manifesting due to agni vaishmyata, with presence of saama and nirama avastha. Excessive consumption of viruddha asatmya vidhahi ahara aggravates pitta, undergoing amla vipaka resulting in

vidagdhaejerna. Further it leads to amlapitta⁸. Jihwa pareeksha plays an important role to assess various changes in jihwa. It reflects the status of annavaha-srotas and ama. Thus, the present study aims at observation of manifestations on jihwa by jihwa pareeksha in saama avastha of Amlapitta.

OBJECTIVES

To observe manifestations on jihwa by jihwa pareeksha in saama avastha of Amlapitta.

MATERIALS AND METHODS

In the present clinical observational study, thirty patients attending OPD and IPD of Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Hassan were screened. Patients fulfilling the following diagnostic and inclusion criteria were included. Diagnosis was made on the basis of samanya lakshanas of Amlapitta that included Avipaka (indigestion), tikta or amla udgara (bitter or sour belching), hrit or kanta daha (heart or throat burn), with or without klama (exhaustion without activity), uthklesha (nausea), gourava (heaviness in the body and head) and aruchi (tastelessness). Patients between the age group of 30-60 years of both genders were included. Institutional ethical clearance number SDM/IEC/56/2017-2018.

They were subjected to physical examination along with detailed recording of history, assessment of samanya lakshanas of ama and jihwa pareeksha. Patients having undergone gastric surgeries and suffering from any other disorder that may interfere in course of the study were excluded. Jihwa pareeksha was conducted on

above mentioned patients tongue in morning hours between 7am to 9am.

Method of examination of jihwa: Before commencement of jihwa pareeksha, patients were asked to clean and gargle the mouth with water. They were made to sit upright, facing good natural day light, asked to open the mouth wide and protrude tongue outside. Considering hygiene examiner wore gloves at the time of examination.

Assessment: Following were assessed in the tongue of the patient: Signs of dominance of dosha, chestha of jihwa, sparsha pareeksha of jihwa, prashna pareeksha and other manifestations on jihwa by jihwa pareeksha.

Dominance of dosha: Dominance of Vata dosha was assessed by following. Sheeta (cold) - Sheeta was examined by placing a clinical thermometer over the tongue. Temperature less than 35⁰ C was considered as presence of sheeta over tongue. Temperature more than 35⁰ C was considered as absence of sheeta over tongue. Khara sparsha (rough) was assessed by gently rubbing on jihwa by two fingers. Sputita (Tongue was observed for cracks / Splits) - i) Transverse cracks on the lateral sides of the tongue. ii) Long or short horizontal cracks on the tongue. iii) Long or short vertical cracks on the center of the tongue. Presence of aruna varna (reddish brown color), krishna varna (black color) of tongue was examined.

Pitta dosha: Rakta varna (red color), shyama varna (dark blue color), harita varna (yellowish green color), peeta varna (yellow color) of jihwa was assessed and vranitha (ulcers) was examined by magnifying lens.

Kapha dosha: Shubhra varna (white color) of jihwa was assessed. Ati pichchila (sliminess) was examined by holding the tongue in between the thumb and index finger in different areas on the tongue. Slakshna (smooth) was examined by two fingers placed on the tongue and gently rubbing the tongue from downwards to upwards. Manda vedana (mild pain) was assessed by exerting

gentle pressure over the tongue in between thumb, index and middle fingers and pain was assessed.

Chestha of jihwa: Fine movements such as kampa (tremor) and sthira (fixed or stable) or any other abnormal movements were observed and noted by asking the patients to open the mouth. Then patients were asked to perform voluntary movements of the tongue in the following manner and observations were noted. Patients were asked to move their tongue as following: Lift the tongue protruded outside the mouth, bend the tongue towards right side of the mouth inwards and outwards, bend the tongue towards left side of the mouth inwards and outwards, protrude the tongue outside the mouth, retract the tongue inside the mouth.

Sparsha pareeksha: Tactile sensibility was examined by touching different areas on tongue by index finger. Position and pain sense were examined by holding the tongue in between thumb, index and middle fingers and a gentle pressure was given on the tongue and pain was assessed. Temperature sense was examined by glass test tube, containing cold water and hot water taken separately. Its bottom and sides were made to touch to different areas of the tongue, commencing from tip of the tongue, lateral sides of the tongue and dorsal surface of the tongue.

Prashna pareeksha: Perception of madhura rasa, amla rasa, lavana rasa, katu rasa, tikta rasa and kashaya rasa was enquired with subjects.

Other manifestations on jihwa by jihwa pareeksha: Tongue body color was observed for black, red and white color in the subjects. Examination of tongue body shape included observation for thin or small tongue, medium or sharp tongue and thick or large tongue. Tongue coating was observed for thick and thin coating. Tongue coating color was observed for black color, yellowish color and whitish color. Tongue moisture was assessed by observing wet and dry tongue. Teeth mark was observed on the tongue with regular dentures and irregular dentures seen on lateral side of the tongue. pH of saliva was assessed by placing saliva over strips of pH paper.

OBSERVATIONS AND RESULT

Table No.1: Clinical observation for samanya lakshanas of Amlapitta in saama avastha

Samanya lakshanas of Amlapitta	Amlapitta (Saama avastha)			
	Total number of patients (N=30)			
	Present	Percentage	Absent	Percentage
Avipaka (indigestion)	30	100.00%	00	00.00%
Amla udgara (sour belching)	24	80.00%	6	20.00%
Tikta udgara (bitter belching)	6	20.00%	24	80.00%
Hrit daha (heart burn)	27	90.00%	3	10.00%
Kanta daha (throat burn)	7	23.33%	23	76.67%
Klama (exhaustion without activity)	14	46.67%	16	53.33%
Uthklesha (nausea)	14	46.67%	16	53.33%
Gourava (heaviness in the body and head)	30	100.00%	00	00.00%
Aruchi (tastelessness)	15	50.00%	15	50.00%

Table No.2: Clinical observation for samanya lakshanas of Ama in saama avastha of Amlapitta

Samanya lakshanas of Ama	Amlapitta (Saama avastha)			
	Total number of patients (N=30)			
	Present	Percentage	Absent	Percentage
Anannabilasha (loss of interest towards food)	6	20.00%	24	80.00%
Arochaka (tastelessness)	15	50.00%	15	50.00%
Apakthi (indigestion)	30	100.00%	00	00.00%
Chardi (vomiting)	3	10.00%	27	90.00%
Malasanga (obstruction to urine/stool/other waste product)	3	10.00%	27	90.00%
Anilamoodhata (disturbances in movements of vata)	1	3.33%	29	96.67%
Nisteevana (excessive salivation)	14	46.67%	16	53.33%
Gourava (heaviness in the body and head)	30	100.00%	00	00.00%
Balabramsha (decrease in strength or immunity)	13	43.33%	17	56.67%
Aalasya (lethargy)	28	93.33%	2	6.67%
Klama (exhaustion without activity)	14	46.67%	16	53.33%

Table No.3: Clinical observation on dominance of dosha elicited by jihwa pareeksha in patients of Amlapitta in saama avastha

I.	Dominance of dosha		Amlapitta (Saama avastha)			
			Total number of patients (N=30)			
			Present	Percentage	Absent	Percentage
Vata	Sheeta (cold)		2	6.67%	28	93.33%
	Khara sparsha (rough)		20	66.67%	10	33.33%
	Sputita (cracks)	Transverse cracks on side	3	10.00%	27	90.00%
		Long / short horizontal	5	16.67%	25	83.33%
		Long / short vertical cracks in the center	25	83.33%	5	16.67%
	Aruna varna (reddish brown color)		00	00.00%	30	100.0%
Krishna varna (black color)		00	00.00%	30	100.0%	
Pitta	Rakta varna (red color)		30	100.0%	00	00.00%
	Shyama varna (dark blue color)		00	00.00%	30	100.0%
	Harita varna (yellowish green color)		00	00.00%	30	100.0%
	Peeta varna (yellow color)		00	00.00%	30	100.0%
Vranitha (ulcers on the tongue)		11	36.67%	19	63.33%	
Kapha	Shubhra (white color)		00	00.00%	30	100.0%
	Ati pichchila (slimy)		22	73.33%	08	26.67%
	Slakshna (smooth)		10	33.33%	20	66.67%
	Manda vedana (mild pain)		12	40.00%	18	60.00%

Table No.4: Clinical observation on cheshta of jihwa elicited by jihwa pareeksha in patients of Amlapitta in saama avastha

II.	Cheshta of jihwa		Amlapitta (Saama avastha)			
			Total number of patients (N=30)			
			Present	Percentage	Absent	Percentage
Sthira (fixed or stable)		00	00.00%	30	100.0%	
Kampa (tremor)		00	00.00%	30	100.0%	

Table No.5: Clinical observation on sparsha pareeksha elicited by jihwa pareeksha in patients of Amlapitta in saama avastha

III.	Sparsha pareeksha		Amlapitta (Saama avastha)			
			Total number of patients (N=30)			
			Present	Percentage	Absent	Percentage
Tactile sensibility		30	100.0%	00	00.00%	
Position and pain sense		12	40.00%	18	60.00%	
Temperature sense		30	100.0%	00	00.00%	

Table No.6: Clinical observation on prashna pareeksha connected to jihwa pareeksha in patients of Amlapitta in saama avastha

IV.	Prashna pareeksha (By rasa pareeksha)		Amlapitta (Saama avastha)			
			Total number of patients (N=30)			
			Present	Percentage	Absent	Percentage
Madhura rasa perception		30	100.0%	00	00.00%	
Amla rasa perception		30	100.0%	00	00.00%	
Lavana rasa perception		30	100.0%	00	00.00%	
Katu rasa perception		30	100.0%	00	00.00%	
Tikta rasa perception		30	100.0%	00	00.00%	
Kashaya rasa perception		30	100.0%	00	00.00%	

Table No.7: Clinical observations on other manifestations on jihwa elicited by jihwa pareeksha in patients of Amlapitta in saama avastha

V.	Other manifestations on jihwa		Amlapitta (Saama avastha)			
			Total number of patients (N=30)			
			Present	Percentage	Absent	Percentage
Tongue body color	Black (vata)	00	00.00%	30	100.0%	
	Red (pitta)	30	100.0%	00	00.00%	
	White (kapha)	00	00.00%	30	100.0%	
Tongue body shape	Thin or small tongue (vata)	9	30.00%	21	70.00%	
	Medium or sharp pointed (pitta)	6	20.00%	24	80.00%	
	Thick or large tongue (kapha)	15	50.00%	15	50.00%	
Tongue coating	Thin tongue coating (vata)	21	70.00%	9	30.00%	
	Thick tongue coating (kapha)	9	30.00%	21	70.00%	
Color of tongue coating	Black color (vata)	00	00.00%	30	100.0%	
	Yellowish color (pitta)	11	36.67%	19	63.33%	
	Whitish color (kapha)	19	63.33%	11	36.67%	
Tongue moisture	Wet (moisture present)	30	100.0%	00	00.00%	
	Dry (moisture absent)	00	00.00%	30	100.0%	
Teeth mark on the tongue	Regular dentures – Teeth mark	9	30.00%	21	70.00%	
	Irregular dentures – Teeth mark	10	33.33%	20	66.67%	
pH of saliva	Acidic (pH < 7.0)	5	16.67%	25	83.33%	
	Alkaline (pH > 7.0)	25	83.33%	5	16.67%	

Table No.8: Arbitration of attributes connected to samanya lakshanas of Amlapitta and samanya lakshanas of Ama assessed in saama avastha

Criteria for Arbitration (Percentage of presence of lakshanas)	Samanya lakshanas of Amlapitta	Samanya lakshanas of Ama
0.0% to 33.33% (Uncommon)	Tikta udgara, kanta daha	Anannabhilasha, chardi, malasanga, anilamoodhata
33.34% to 66.66 % (Common)	Klama, uthklesha, aruchi	Arochaka, nisteevana, balabramsha, klama
66.67% to 100% (Very common)	Avipaka, amla udgara, hrit daha, gourava	Apakthi, gourava, aalasya

Table No.9: Arbitration of attributes connected to manifestation on jihwa assessed by jihwa pareeksha in saama avastha of amlapitta

Criteria for Arbitration (Percentage of presence of lakshanas)	Dominance of Dosha	Cheshta of jihwa	Sparsha pareeksha	Prashna pareeksha
0.0% to 33.33% (Uncommon)	Sheeta, transverse cracks on side, long / short horizontal cracks, aruna, krishna, shyama, harita, peeta varna, shubhra, slakshna	Sthira and kampa		
33.34% to 66.66 % (Common)	Vranitha, manda vedana		Position and pain sense	
66.67% to 100% (Very common)	Khara sparsha, long / short vertical cracks in the center, rakta varna, ati pichchila		Tactile sensibility, temperature sense	Madhura, amla, lavana, katu, tikta, kashaya rasa perception

Table No.10: Arbitration of attributes connected to other manifestation on jihwa assessed by jihwa pareeksha in saama avastha of amlapitta

Criteria for Arbitration (Percentage of presence of lakshanas)	Other manifestations on jihwa
0.0% to 33.33% (Uncommon)	Black and white color of tongue body, thin or small tongue, medium or sharp pointed tongue shape, thick tongue coating, black color tongue coating, absence of moisture on tongue, regular and irregular dentures– teeth mark, acidic nature of saliva
33.34% to 66.66 % (Common)	Thick or large tongue, yellowish and whitish color of tongue coating
66.67% to 100% (Very common)	Red color of tongue body, thin tongue coating, moist tongue, alkaline nature of saliva

DISCUSSION

Assessment of samanya lakshanas of amlapitta showed avipaka was present in all 30 (100.0%) patients in saama avastha. Avipaka is due to reduction in the activity of agni causing discomfort and indigestion that affects subsequent food intake. Manda agni and ajirna are the core factors in pathogenesis of Amlapitta⁹. Anna visha is produced from the resultant ajirna resulted due to

agnimandya. It mingles with pitta dosha leading to manifestation of Amlapitta.

Amla udgara was reported in 24 (80.0%) patients and tikta udgara in 6 (20.0%) patients. Common presenting symptom of Amlapitta is amlodgara, tiktodgara or both, due to vitiated pitta dosha. Normally pitta possesses katu rasa but on attaining vidagdhatta, katu rasa is transformed to amla rasa¹⁰. The amla guna and drava guna of pitta increases resulting in agnimandhya and ajirna. This

contributes to vidaghata of ahara in amashaya resulting in amla or tikta udgara.

Hrit daha was complained by 27(90.0%) patients and kanta daha was present in 7(23.3%) patients. The subjects with amlapitta complain of burning sensation in the throat, cardiac/ chest region as well as the abdomen. Sometimes the whole body, palms and soles are also affected depending on the extent of pitta prakopa¹¹. The vitiated pitta leads to agnimandhya, ajirna and ama. In the initial stages, pitta vruddi may occur in koshta but in later stages, it could be evident in shakha as well, manifesting burning sensation in extremities.

Klama was found in 14(46.7%) patients in saama avastha of Amlapitta. Klama occurs due to accumulation of ama dosha resulting in decreased energy level and disinterest¹². Uthklesha was present in 14(46.7%) patients. Utklesha in amlapitta has praseka and nisteeva as presenting symptoms due to kapha dosha¹³.

Gourava was reported in 30 (100.0%) patients and aruchi in 15(50.0%) patients in saama avastha of amlapitta. Gourava and aruchi is caused due to ama dosha. In amlapitta, due to improper digestion, rasa dhatu may not be formed properly, leading to improper poshana of rasa dhatu, in-turn gets vitiated. Due to vitiation of rasa dhatu, aruchi, hrillasa and gourava manifests¹⁴.

Among samanya laksahana of ama, anannabhilasha was present in 6 (20.0%) patients. This is connected to vitiation of rasa dhatu resulted by mandagni leading to ama manifesting anannabhilasha¹⁵.

Chardi and malasanga was complained by 3 (10.0%) patients in saama avastha. Chardi manifests due to ama dosha, vitiated kapha and vata. Praseka can be considered as its purvaroop¹⁶. Nisteevana was present in 14 (46.7%) patients in saama avastha of amlapitta and attributed to involvement of kapha dosha¹⁷.

In the present study, Balabramsha was noticed in 13 (43.3%) patients. Due to srotoavarodha (obstruction in channels) nutrition to dhatus decreases as a result, utarothara dhatu poshana is hampered resulting in decrease of strength¹⁸. Aalasya was found in 28 patients. Ama has the tendency to vitiate kapha quickly due to their similar nature; hence patient develops laziness¹⁹ due to abnormal kapha.

Sheeta was present in 2 (6.7%) patients in saama avastha. Sheeta in jihwa is due to vata and kapha guna vruddi²⁰. Khara sparsha was found in 20 (66.7%) patients. Khara sparsha in jihwa is felt due to ruksha guna vruddi of vata dosha. Khara guna does lekhana karma²¹. It also contributes to dhatu kshaya. Sputita manifesting as transverse cracks on sides of tongue was noticed in 3 (10.0%) patients, Long / short horizontal cracks were found in 5 (16.7%) patients and Long / short vertical cracks in the center was present in 25 (83.3%) patients. Sputita jihwa is due to vata guna vruddi²².

Rakta varna was observed in 30 (100.0%) patients and vranitha was noticed in 11(36.7%) patients in saama avastha of Amlapitta. Rakta varna is due to pitta vruddi²².

Ati pichchila was present in 22 (73.3%) patients. Ati pichchila in jihwa is felt due to kapha dosha and jala mahabhuta dominance. Ati pichchila guna cause the karma lepana²³. Slakshna was found in 10 (33.3%) patients. Slakshna in jihwa is due to kapha dosha. Slakshna guna does ropana karma²³. Manda vedana was reported in 12 (40.0%) patients. Manda vedana results due to kapha dosha²⁴.

Thin tongue coating was noticed in 21 (70.0%) patients, thick tongue coating was observed in 9 (30.0%) patients. Coating on tongue is due to kapha dosha dominance and pichchila guna contributing to lepana on jihwa²⁵. Yellowish color of tongue coating was found in 11 (36.7%) patients and whitish color in 19 (63.3%) patients. Moist tongue was seen in 30 (100.0%) patients. Regular dentures teeth mark was noticed in 9 (30.0%) patients, irregular dentures teeth mark was observed in 10 (33.3%) patients. Acidic nature of saliva was observed in 5 (16.7%) patients, alkaline nature of saliva was observed in 25 (83.3%) patients in saama avastha of Amlapitta.

Present study reveals, among the samanya lakshanas of Amlapitta in saama avastha; Avipaka, amla udgara, hrit daha, gourava are very common manifestation, as it is observed in maximum number of patients (66.67% to 100%). Klama, uthklesha, aruchi are the attributes that are common manifestation (33.34% to 66.66 %) and tikta udgara, kanta daha are uncommon manifestation (0.0% to 33.33%) in saama avastha of Amlapitta.

Among the thirty patients analyzed for samanya lakshanas of Ama in saama avastha; Apakthi, gourava, aalasya are very common manifestations, as it is observed in maximum number of patients (66.67% to 100%). Arochaka, nisteevana, balabramsha, klama are the attributes that commonly manifest (33.34% to 66.66 %) and anannabhilasha, chardi, malasanga, anilamoodhata are uncommon manifestation (0.0% to 33.33%) of Ama.

In the present study, it is concluded that following manifestations on jihwa should be considered as very common manifestations elicited by jihwa pareeksha in saama avastha of amlapitta, as they were evident in saama avastha of amlapitta by jihwa pareeksha. On the basis of dominance of dosha. Khara sparsha, long or short vertical cracks in the center of tongue, rakta varna, ati pichchila was evident. By Sparsha pareeksha: Tactile sensibility, temperature sense was evident. By prashna pareeksha: Madhura, amla, lavana, katu, tikta and kashaya rasa perception and based on other manifestation on jihwa: Red color of tongue body, thin coating on tongue, moist tongue, alkaline nature of saliva.

Further, following manifestations on jihwa evident in saama avastha of amlapitta elicited by jihwa pareeksha should be considered as common manifestations that includes on the basis of dominance of dosha; Vranitha and manda vedana. By sparsha pareeksha; Position and pain sense and based on other manifestation on jihwa; Thick or large tongue, yellowish and whitish color of tongue coating.

Following are manifestations elicited by jihwa pareeksha that are considered as uncommon manifestation in saama avastha of amlapitta. On the basis on dominance of dosha; Sheeta, transverse cracks on side, long or short horizontal cracks, aruna varna, krishna varna, shyama varna, harita varna, peeta varna, shubhra, slakshna, by cheshta of jihwa; Sthira, kampa and based on other manifestation on jihwa; Black and white tongue body color, thin or small tongue, medium or sharp pointed, thick tongue coating, black color of tongue coating, absence of moisture on tongue, regular and irregular dentures - teeth mark, acidic nature of saliva.

CONCLUSION

Diagnosis of Amlapitta should be established by samanya lakshanas of Amlapitta and their saama and nirama avastha should be evaluated by samanya lakshanas of Ama. The manifestations elicited by jihwa pareeksha in this article as discussed above can be utilized for assessment of saama avastha in Amlapitta by clinical examination.

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