

MORPHOLOGICAL ALTERATION OF STRUCTURES RELATED TO ARISTA WITH SPECIAL REFERENCE TO INDRIYASTHAN OF CHARAK SAMHITA

¹*Dr. Sonu Samariya, ²Dr. Tikendrajit Sarma and ³Prof. (Dr.) Pranabjyoti Baishya

¹PG Scholar, Dept. of Rachana Sharir, Govt. Ayurvedic College, Guwahati.

²MD (Ayu), Ph.D., Associate Professor, Dept. of Rachana Sharir, Govt. Ayurvedic College, Guwahati.

³MD (Ayu), Principal cum Head, Dept. of Rachana Sharir, Govt. Ayurvedic College, Guwahati.

Article Received on
25 Nov. 2024,

Revised on 16 Dec. 2024,
Published on 15 Jan. 2025

DOI: 10.20959/wjpr20251-35271



*Corresponding Author

Dr. Sonu Samariya

PG Scholar, Dept. of
Rachana Sharir, Govt.

Ayurvedic College,
Guwahati.

ABSTRACT

The assessment of Indriya Sthan is less frequently discussed in research platforms. Acharya Charak mentioned it in the fifth position, where twelve chapters have been thoroughly analyzed. The term "Indriya" is defined by Acharya Chakrapani as “इन्द्रशब्देन प्राण उच्यते, तस्यान्तगतस्य लिङ्गं रिष्टाख्यमिन्द्रियं,” which highlights the connection between Indriya and Prana (vital energy) and its decline. The significance of this concept is emphasized in the chapter on Indriya Sthan. These chapters are presented before the Chikitsa Sthan, underscoring their importance in practical application. This framework allows physicians to have a clear understanding of the signs of potential fatality before initiating treatment. Current research aims to explore the involvement of Arista, as referenced in the Indriya Sthan of Charak Samhita.

KEYWORDS: Arista, Indriya Sthan, Charak, Anatomical structures.

INTRODUCTION

In the esteemed Charak Samhita, a foundational text of Ayurveda, the concept of Arista Lakshana plays a vital role in understanding the intricate relationships between the body's structural elements and their impact on overall health. Acharya Chakrapani stated that

इन्द्रशब्देन प्राण उच्यते, तस्यान्तगतस्य लिङ्गं रिष्टाख्यमिन्द्रियं; where “Indra” means “Prana” and the signs indicating its end are known as Indriya or Rista. The section of Charaka Samhita which possess knowledge about Indriya is named Indriya Sthana. The signs resulting from the vitiated doshas have spread throughout body, surpassing/defying the treatment, are precisely termed as arista. These signs unmistakably point to an individual being close to death. Physicians must be diligent in observing these signs and fully understanding each of them. While not all of these signs may appear in the same person, it is crucial for physicians to be confident in their ability to recognize and interpret them. The presence of a flower doesn't always ensure the production of fruits, and sometimes fruits can grow without any flowers. However, once symptoms of proximal death appear, they cannot vanish without leading to death. Similarly, death cannot occur without being preceded by warning signs. Chakrapani further opines that premonitory symptoms are of two types, viz- 1. Niyat 2. Aniyat. Indriya sthan of charak Samhita is placed just before the chikitsa sthan in chronology so that prior to chikitsa, the physician must know about all these lakshana so he can understand in which condition treatment should be beneficial or not and prognostic factors can be predicted based on the location of arista lakshana in concerned body part.

AIM AND OBJECTIVE

1. To evaluate Arista lakshana involving morphological structure.

MATERIAL METHOD

Present research work has taken following material methods to fulfill above objectives-

1. Arista lakshana of indriya sthan of charak Samhita will be evaluated specifically morphological alteration.
2. Chakrapani's comments on the related references will also be assessed subsequently.

LITERARY REVIEW

This study is reviewed under following headings

A. According to Sensory Organs
B. According to Functional Anatomy
C. According to Regional Anatomy
D. According to Dosha, Dhatu and Mala
E. Morbidity involvement of structure in specific disease
F. Miscellaneous arista

A. ACCORDING TO SENSORY ORGANS

S.NO	STRUCTURES	CHARACTERISTICS
1.	EYES-	<p>❖ तस्य चेचक्षुषी प्रकृतिहीने, विकृतियुक्ते-अत्युत्पिण्डिते, अतिप्रविष्टे, अतिजिहमे, अतिविषमे, अतिमुक्तबन्धने, अतिप्रसृते, सततोन्मिषिते, सततनिमिषिते, निमिषोन्मेषातिप्रवृत्ते, विभ्रान्तदृष्टिके, विपरीतदृष्टिके, हीनदृष्टिके, व्यस्तदृष्टिके [५], नकुलान्धे, कपोतान्धे, अलातवर्णे, कृष्णपीतनीलश्यावताम्रहरितहारिद्रशुक्लवैकारिकाणां वर्णानामन्यतमेनातिप्लुते वा स्यातां, तदा परासुरिति विद्यात्।</p> <ul style="list-style-type: none"> • If his eyes are devoid of natural characteristics and endowed with unnatural ones e.g. if they are- • Excessively bulging, • Excessively withdrawn, • Excessively slanted, • Excessively distorted, • Excessively loose, • With excessive secretions or watery discharge, • Are either continuously open or closed, • Continuously blinking, • With unstable, abnormal and deficient vision, • With the morbidity of nakulandhya or blindness of mongoose i.e. they view everything as white during day time, • With the morbidity of kapotandhya or the blindness of pigeon i.e., they view everything as black during day time, • Patient sees halo of different color like black, yellow, blue, darkish brown, coppery, green, turmeric, yellow, white or any abnormal color. <p>❖ यस्य श्यावे परिध्वस्ते हरिते चापि दर्शने। आपन्नो व्याधिरन्ताय ज्ञेयस्तस्य विजानता॥३॥ (Ch.In.9/3)</p> <p>If the eyes of the patient become blackish brown, green and devoid of vision, he is sure to die.</p> <p>❖ कामलाक्ष्णोर्मुखं पूर्णं शङ्खयोर्मुक्तमांसता। सन्त्रासश्चोष्णगात्रत्वं [१] यस्य तं परिवर्जयेत्॥१८॥ (Ch.In.7/18)</p> <p>.. कामलाक्ष्णोरिति कामलिन इव पीताक्षत्वम् (chakrapani)</p> <p>Patient who is suffering from Kamla, if have swelling of face, wasting over temporal region and have terrifying appearance with high fever such patient should not be treated.</p> <p>❖ ऊर्ध्वाग्रे नयने यस्य मन्ये [१] चारतकम्पने। बलहीनः पिपासार्तः शुष्कास्यो न स जीवति॥(Ch.In.7/27)</p> <p>...ऊर्ध्वाग्रे इति ऊर्ध्वमुखे (Chakrapani)</p> <p>Person who is weak, thirsty and having dryness of mouth suffered from</p>

		<p>rigid and upward look of the eyes and persistent throbbing of the carotid region of the neck, then he will not survive for long.</p> <p>❖ समीपे चक्षुषोः कृत्वा मृगयेताङ्गुलीकरम् स्मयतेऽपि च कालान्ध ऊर्ध्वगानिमिषेक्षणः [१] १८ (Ch.In.11/18) A person whose vision is fixed and directed upwards, who searches for his hands and fingers which are placed in front of his eyes and smiles while doing so, succumbs to death immediately.</p> <p>❖ यस्य श्यावे परिध्वस्ते हरिते चापि दर्शने आपन्नो व्याधिरन्ताय ज्ञेयस्तस्य विजानता ३ (Ch.In. 9/3) When the eyes of patient are brownish, black, greenish in color, distorted then such condition indicates impending death</p>
	BHRU	<p>व्यावृत्तमूर्धजिह्वास्यो [२] भ्रुवौ यस्य च विच्युते कण्टकैश्चाचिता जिह्वा यथा प्रेतस्तथैव सः २९ When there is distortion of the head, tongue and face, dropping of the eyebrows and appearance of thorny coating over the tongue, then such person is considered to be already dead.</p>
	PAKSHMA	<p>❖ तस्य चेत् पक्ष्माणि जटाबद्धानि स्युः, परासुरिति विद्यात् If his eyes lashes are matted together. ❖ जटीभूतानि पक्ष्माणि दृष्टिश्चापि निगृह्यते यस्य जन्तोर्न तं धीरो भेषजेनोपपादयेत् (Ch.In.8/4)(3/6) In a person, if there is matting of eyelashes resulting in absence of vision (because of the matting of the eyes lashes of upper and lower eye lid together), he should not be treated.</p>
	VARTAMA	<p>यस्य शूनानि वर्त्मानि न समायान्ति शुष्यतः चक्षुषी चोपदिह्येते [२] यथा प्रेतस्तथैव सः (Ch.In.8/5) An emaciated person, who is unable to close his eyes due to swollen eyelids accompanied with burning sensation in the eyes he should be considered as dead.</p>
2.	NOSE	<p>❖ ग्लायते [१] नासिकावंशः पृथुत्वं यस्य गच्छति अशूनः शूनसङ्काशः प्रत्याख्येयः स जानता अत्यर्थविवृता यस्य यस्य चात्यर्थसंवृता जिह्मा वा परिशुष्का वा नासिका न स जीवति (Ch.In.8/11) Chakrapani- ग्लायत इति दौर्बल्यं भजते, विवृतेति निर्गता संवृतेति प्रविष्टा Depression and thickening of the ridge of the nose along with pseudo-swollen appearance then patients with such sign must not be treated by the wise physician. Excessive flaring and constriction, distortion in shape and extreme dryness</p>

		<p>of the nose indicates that the individual will not survive.</p> <p>Behavioural- मुहुर्हसन् मुहुः क्ष्वेडन् शय्यां पादेन हन्ति यः। उच्चैश्छिद्राणि [१] विमृशन्नातुरो न स जीवति॥ (Ch.In.8/20) Chakrapani-उच्चैश्छिद्राणीति नासाकर्णाक्षिस्रोतांसि The patients who frequently laughs and shouts, strikes the bed by feet and puts finger into the nostrils, ear and eyes doesn't survive.</p>
3.	JIVHA	<p>व्यावृत्तमूर्धजिह्वास्यो [२] भ्रुवौ यस्य च विच्युते। कण्टकैश्चाचिता जिह्वा यथा प्रेतस्तथैव सः॥ (Ch.In.7/29) When there is distortion of the head, tongue and face, dropping of the eyebrows and appearance of thorny coating over the tongue, then such person is considered to be already dead.</p> <p>स्तब्धा निश्चेतना गुर्वी कण्टकोपचिता भृशम्। श्यावा शुष्काऽथवा शूना प्रेतजिह्वा विसर्पिणी॥ (Ch.In.8/14) Chakrapani-विसर्पिणी बहिर्निर्गता If the tongue becomes stiff, loss of perception, heavy, excessively coated with a thorn like fur, brown in colour, dry or swollen and constantly mobile, then the patient having such signs should be considered as dead.</p> <p>ग्रीवावमर्दो बलवाञ्जिह्वाश्वयथुरेव च। ब्रध्नास्यगलपाकश्च यस्य पक्वं तमादिशेत्॥ (Ch.In.11/15) A person having acute squeezing pain in the neck, swelling of the tongue, inflammation of scrotum, mouth and throat are indicative of proximal death.</p>

B. ACCORDING TO FUNCTIONAL ANATOMY

S.No	Functional	Characteristics
1.	SPARSH	<p>स्पर्शप्राधान्येनैवातुरस्यायुषः [१] प्रमाणावशेषं [२] जिज्ञासुः प्रकृतिस्थेन पाणिना शरीरमस्य केवलं स्पृशेत्, परिमर्शयेद्वाऽन्येन। परिमृशता तु खल्वातुरशरीरमिमे भावास्तत्र तत्रावबोद्धव्या भवन्ति। तद्यथा-</p> <ul style="list-style-type: none"> • सततं स्पन्दमानानां शरीरदेशानामस्पन्दनं, • नित्योष्मणां शीतीभावः, • मृदूनां दारुणत्वं, • श्लक्ष्णानां खरत्वं, • सतामसद्भावः [३], • सन्धीनां संसभ्रंश्च्यवनानि; • मांसशोणितयोर्वीतीभावः, • दारुणत्वं, • स्वेदानुबन्धः,

	<ul style="list-style-type: none"> • स्तम्भो वा; यच्चान्यदपि किञ्चिदीदृशं स्पर्शानां लक्षणं भृशविकृतमनिमित्तं स्यात्। <p>Chakrapani- स्पर्शनेति वक्तव्ये यत् 'स्पर्शप्राधान्येन' इति करोति,</p> <p>One desirous of ascertaining the remaining span of life of a patient, only on the basis of tactual signs should touch the entire body of the patient with his palm, neither too hot nor too cold, the following points are required to be observed with touching the body of the patient-</p> <ul style="list-style-type: none"> • Absence of pulsation in such of the organs of the body which pulsate constantly. • Coldness in organs which normally remain constantly hot • Hardness in soft organs • Roughness in smooth organs • Absence of organs which are normally present • Major and minor dislocation of joints downwards or sideways. • Excessively diminution of muscles tissue and blood • Appearance of hardness • Persistent sweating or its total absence <p>The above-mentioned symptoms or similar other symptoms which reflect abnormal tactual conditions without any appreciable cause are indicative of forthcoming death.</p>
	<p>❖ तद्व्यासतोऽनुव्याख्यास्यामः- तस्य चेत् परिमृश्यमानं पृथक्त्वेन पादजङ्घोरुस्फिगुदरपार्श्वपृष्ठेषिकापाणिग्रीवाताल्वोष्ठललाटं स्विन्नं शीतं स्तब्धं [१] दारुणं वीतमांसशोणितं वा स्यात्, परासुरयं पुरुषो न चिरात् कालं [२] मरिष्यतीति विद्यात्।</p> <p>If the feet, knees, thighs, buttocks, abdomen, sides of the chest, vertebral column, hands, neck, palate, lips and forehead of the patient are touched separately and found wet, cold, rigid, hard or devoid of flesh and blood, it should be enfreed that his span of life has come to an end and he will be die soon.</p> <p>❖ तस्य चेत् परिमृश्यमानानि पृथक्त्वेन - गुल्फजानुवङ्क्षणगुदवृषणमेढ्रनाभ्यंसस्तनमणिकपर्शुकाहनुनासिकाकर्णाक्षिभूशङ्खादीनि स्रस्तानि व्यस्तानि च्युतानि स्थानेभ्यः स्कन्नानि [३] वा स्युः, परासुरयं पुरुषोऽचिरात् कालं मरिष्यतीति [४] विद्यात्॥५॥</p> <p>If ankles, knees, hips, anus, testicles, penis, umbilicus, shoulder, breast, wrist joint, ribs, jaws, nose, ears, eyes, eyebrow and temples are separately touched and found falling, scattering, displaced or dislocated, then in such situation also, one can predict instantaneous death of the individual.</p>
VRANA (COMPLEXION)	<p>❖ नखनयनवदनमूत्रपुरीषहस्तपादौष्ठादिष्वपि च वैकारिकोक्तानां वर्णानामन्यतमस्य प्रादुर्भावो हीनबलवर्णेन्द्रियेषु लक्षणमायुषः क्षयस्य भवति॥१२॥</p> <p>Appearance of any one of the abnormal colours in nails, eyes, face, urine, stool, hands, legs and lips together with diminution of strength, complexion</p>

		<p>and sensory perception is indicative of proximal death.</p> <p>❖ यच्चान्यदपि किञ्चिद्वर्णवैकृतमभूतपूर्वं सहसोत्पद्येतानिमित्तमेव हीयमानस्यातुरस्य शश्वत्, तदरिष्टमिति विद्यात्। Sudden and accidental appearance of any other unusual morbid complexion is always indicative of growing weakness of the patient and does therefore constitute premonition for inevitable death.</p> <p>❖ यस्य वैकारिको वर्णः शरीर उपपद्यते। अर्धे वा यदि वा कृत्स्ने निमित्तं न च नास्ति सः॥ (Ch.In.1/17) Appearance of abnormal complexion in the entire or half of the body of the individual without and visible cause, then person is dying.</p> <p>❖ ओष्ठयोः पादयोः पाण्योरक्ष्णोर्मूत्रपुरीषयोः। नखेष्वपि च वैवर्ण्यमेतत् क्षीणबलेऽन्तकृत्॥ (Ch.In. 1/22) Discoloration of lips, legs, heels, eyes, urine, stool and nails of the patient when he is diminished of strength.</p> <p>यच्चान्यदपि किञ्चित् स्याद्वैकृतं स्वरवर्णयोः। बलमांसविहीनस्य तत् सर्वं मरणोदयम् ॥ (Ch.In. 1/25) The abnormality in the voice and complexion of an individual who is devoid of strength and flesh also indicate proximal death.</p>
	DARSHAN-	<p>❖ प्रभावतः प्रभाहीनान्निष्प्रभांश्च प्रभावतः। नरा विलिङ्गान् पश्यन्ति भावान् भावाञ्जिहासवः [१]॥ (Ch.In. 4/16) Appearance of bright things as devoid of lustre, the ones having no lustre as bright i.e., to view things devoid of their real characteristics.</p> <p>❖ व्याकृतीनि विवर्णानि विसङ्ख्योपगतानि च । विनिमित्तानि पश्यन्ति रूपाण्यायुःक्षये नराः ॥ (Ch.In.4/17) To have visual perception in a distorted form i.e., to view things appearing as having multiple forms, devoid of complexion and inaccurate numbers without any structures.</p>
	KSHOTRA	<p>❖ अशब्दस्य च यः श्रोता शब्दान् यश्च न बुध्यते। द्वावप्येतौ यथा प्रेतौ तथा ज्ञेयौ विजानता [१] ॥१९॥ संवृत्याङ्गुलिभिः कर्णौ ज्वालाशब्दं य आतुरः। न शृणोति गतासुं तं बुद्धिमान् परिवर्जयेत्॥२०॥ (Ch.In. 6/19,20) Hearing inaudible sounds and not to hear audible ones, inability to hear the internal or astral sounds even after closing the ears with fingers.</p>
	GHRANA-	<p>❖ विपर्ययेण यो विद्याद्गन्धानां साध्वसाधुताम्। न वा तान् [१] सर्वशो विद्यात्तं विद्याद्विगतायुषम्॥२१॥ (Ch.In. 6/21) If the olfactory sense of person fails to distinguish between good or bad smells or is not responsive to any smell at all, he is considered as morbid</p>

		person.
	RASANA-	<p>❖ यो रसान्न विजानाति न वा जानाति तत्त्वतः। मुखपाकादृते पक्वं तमाहुः कुशला नरम्॥२२॥ (Ch.In. 6/22) If a person free from mukhpaka doesn't have the gustatory sensation at all or has a wrong gustatory sensation, this is also sign of imminent death.</p>

C. ACCORDING TO REGIONAL ANATOMY

URDHAVA JATRUGATA (Above the Suprasternal Notch)

S.no.	Structures	Characteristics
1.	SHIRA	<p>❖ शिरो विक्षिपते कृच्छ्रान्मुञ्चयित्वा प्रपाणिकौ। ललाटसुप्रतस्वेदो मुमूर्षुश्च्युतबन्धनः [१] ॥२६॥ (Ch.In.8/26) If the person moves his head with difficulty by the help of the forearms and if there is sweating in the forehead and loosening of joints, then he is considered to be dying.</p> <p>❖ यस्य गोमयचूर्णाभं चूर्णं मूर्धनि जायते। सस्नेहं भ्रश्यते चैव मासान्तं तस्य जीवितम्॥३॥ (Ch.In.12/3) If an unctuous powder resembling that of cow dung appears in and falls down from the head/scalp, the patient may live for one month only.</p>
2.	MUKHA	<p>❖ तथा पिप्लव्यङ्गतिलकालकपिडकानामन्यतमस्यानने जन्मातुरस्यैवमेवाप्रशस्तं विद्यात्॥११॥ (Ch.In.1/11) Sudden appearance of any one of pippli (port wine mark), vyanga (freckles), tilakalaka (black mole) and pidaka (pimple) in the face of patient is indicative of proximal death.</p> <p>❖ नीलं वा यदि वा श्यावं ताम्रं वा यदि वाऽरुणम्। मुखार्धमन्यथा वर्णो मुखार्धेऽरिष्टमुच्यते॥१८॥ (Ch.In.1/18) when in a half of the face there is blue, blackish, coppery or tawny color and the color of the remaining half is otherwise, this is the sign of dying person.</p> <p>❖ स्नेहो मुखार्धे सुव्यक्तो रौक्ष्यमर्धमुखे [१] भृशम्। ग्लानिरर्धे तथा हर्षो मुखार्धे प्रेतलक्षणम्॥१९॥ (Ch.In. 1/19) When manifestation of unctuousness in one half of the face and roughness in the other half, and appearance of plumpness in one half of the face and emaciation in other half, this is the sign of dying person.</p> <p>❖ तिलकाः पिप्लवो व्यङ्गा राजयश्च पृथग्विधाः। आतुरस्याशु जायन्ते मुखे प्राणान् मुमुक्षतः॥२०॥ (Ch.In. 1/20) Spontaneous appearance of various types of tila (black mole),</p>

		<p>pippul (portwine mark), vyanga (freckles) and raji (spots like mustard) in the face of patient</p> <p>❖ MUKHA/KARNA/OSTHA-</p> <p>❖ मुखं शब्दश्रवावोष्ठौ [२] शुक्लश्यावातिलोहितौ। विकृत्या यस्य वा नीलौ न स रोगाद्विमुच्यते CHAKRAPANI-शब्दश्रवौ कर्णौ.... If the face, ears and lips become abnormally (without any visible cause) white, brown, excessively red or blue, then such a patient doesn't recover from the disease.</p> <p>❖ DANTA/MUKHA-</p> <p>❖ दन्ताः कर्दमदिग्धाभा मुखं चूर्णकसन्निभम्। सिप्रायन्ते च गात्राणि लिङ्गं सद्यो मरिष्यतः॥ (Ch.In.10/19) Appearance of teeth as coated with mud, face as it covered with ashes and excessive perspiration, then this is sign of immediate death.</p>
3.	OSTHA	<p>❖ यस्य नीलावुभावोष्ठौ पक्वजाम्बवसन्निभौ। मुमूर्षुरिति तं विद्यान्नरो धीरो गतायुषम्॥ (Ch.In.1/23) When both the lips become bluish like the ripe fruits of jambu then this also indicate proximal death of person.</p>
4.	GREEVA	<p>GREEVA PRASTHA AND HANU-</p> <p>❖ न बिभर्ति शिरो ग्रीवा न पृष्ठं भारमात्मनः। न हनू पिण्डमास्यस्थमातुरस्य मुमूर्षतः॥ (Ch.In.8/22) If the neck and back of the patient is unable to support the weight of the head i.e. unable to sit and jaw also enables to hold or to take even a small bite of food then this indicates his proximal death.</p> <p>❖ नोपैति कण्ठमाहारो जिह्वा कण्ठमुपैति च। आयुष्यन्तं गते जन्तोर्बलं च परिहीयते॥ (Ch.In.8/25) If the ingested food does not reach the throat, or the tongue falls back over the throat (thereby causing obstruction) and there is diminution of strength, then the death of the person is proximal.</p>
5.	MANYA	<p>❖ हस्तौ पादौ च मन्ये च तालु चैवातिशीतलम्। भवत्यायुःक्षये क्रूरमथवाऽपि भवेन्मृदु ॥ (Ch.In.8/16) Excessive coldness, roughness and softness in the hands, legs manyas and talu such signs indicate the end of the life of the person.</p> <p>❖ तस्य चेन्मन्ये परिमृश्यमाने न स्पन्देयातां, परासुरिति विद्यात्। If there is no pulsation in his manya when touched, then this is the sign of proximal person.</p>

MADHYAM SHARIR (TORSO)

S.no	Structure	Characteristics
1.	UDARA	❖ चेदुदरे सिराः प्रकाशेरज् श्यावतामनीलहारिद्रशुक्ला वा स्युः (Ch.In.3/6) Visibly prominent veins on abdominal region and appears to have different color like black, copper, blue, turmeric or white
2.	KUKSHI	❖ सफेनं रुधिरं यस्य मुहुरास्यात् प्रसिच्यते। शूलैश्च तुद्यते कुक्षिः प्रत्याख्येयस्तथाविधः॥ (Ch.In.6/21) The patient frequently spitting frothy blood and suffering from piercing pains in stomach, should be refused for the treatment by physician.
3.	SEPHA/VRISHANA	❖ शेफश्चात्यर्थमुत्सिक्तं निःसृतौ वृषणौ भृशम्। अतश्चैव विपर्यासो विकृत्या प्रेतलक्षणम्॥ Ch.In.7/30 If the phallus gets excessively shrunken and the testicles hangs excessively loose or vice versa, then the person having such abnormal signs should be considered as already dead.

SHAKHA (LIMBS)

S.no	Structure	Characteristics
1.	ANGULI	❖ अथास्याङ्गुलीरायच्छेत्; तस्य चेदङ्गुलय आयम्यमाना न स्फुटेयुः (Ch.In.3/6) If there is not cracking sound while stretching or pulling the fingers then it should be indicative of proximal death.
2.	JANU	❖ घट्टयञ्जानुना जानु पादावुद्यम्य पातयन्। योऽपास्यति मुहुर्वक्रमातुरो न स जीवति॥(Ch.In/8/17) A person who strikes one knee with other, throws down legs after lifting them up and frequently turns the face to one or the other side, does not survive.

D. MORBIDITY OF DIFFERENT STRUCTURES RELATED TO DOSHA, DHATU, MALA

s.no	Dosha, Mala	Dhatu,	Characteristics
1.	VATA		❖ पिण्डिके शिथिलीकृत्य जिहमीकृत्य च नासिकाम्। वायुः शरीरे विचरन् सदयो मुष्णाति जीवितम् ॥ (Ch.In.10/5) Due to movement of vitiated vayu all over the body that producing laxity in the calf muscles and irregularity in the structure of nose, then he will die soon. ❖ क्षीणशोणितमांसस्य वायुरूध्वगतिश्चरन्। उभे मन्ये समे यस्य सदयो मुष्णाति जीवितम्॥ (Ch.In.10/7) Diminution of blood and flesh in a patient who is suffering from distension of both the manyas due to abnormal upward movement of

	<p>aggravated vayu, then he will die soon.</p> <p>❖ अन्तरेण [१] गुदं गच्छन् नाभिं च सहसाऽनिलः। कृशस्य वङ्क्षणौ गृहणन् सदयो मुष्णाति जीवितम्॥ Ch.In. 10/8) Pain in the groins of a weak patient due to sudden aggravation of vayu between the anus and the umbilicus, then such symptom indicate death in some days.</p> <p>❖ वितत्य पर्शुकाग्राणि गृहीत्वोरश्च मारुतः। स्तिमितस्यायताक्षस्य सदयो मुष्णाति जीवितम्॥९॥ (Ch.In. 10/9) Stretching of the tips of ribs by the aggravated vayu afflicting the chest of a patient whose eyes are dilated and who feels stamitya, will lead to death.</p> <p>❖ हृदयं च गुदं चोभे गृहीत्वा [२] मारुतो बली। दुर्बलस्य विशेषेण सदयो मुष्णाति जीवितम्॥१०॥ (Ch.In.10/10) Affliction of both heart and anus by strongly aggravated vayu in a weak patient, such signs are indicative if proximal death.</p> <p>❖ वङ्क्षणं च गुदं चोभे गृहीत्वा मारुतो बली। श्वासंसञ्जनयञ्जन्तोः सदयो मुष्णाति जीवितम्॥११॥ (Ch.In.10/11) If patient develop severe dyspnea due to affliction of both groins and anus by the strongly aggravated vayu, then he dies instantly.</p> <p>❖ नाभिं मूत्रं बस्तिशीर्ष [३] पुरीषं चापि मारुतः। प्रच्छिन्नं [४] जनयञ्छूलं सदयो मुष्णाति जीवितम्॥१२॥ (Ch.In.10/12) If patient experience severe cutting pain in the umbilicus, urination, bastisirs and defecation caused by strongly aggravated vata, then he will die soon.</p> <p>❖ भिद्येते वङ्क्षणौ यस्य वातशूलैः समन्ततः। भिन्नं पुरीषं तृष्णा च सदयः प्राणाञ्जहाति सः॥१३॥ (Ch.In.10/13) Manifestation of diarrhea and thirst in a patient suffering from pricking pain in the groins caused by vitiated vata, then he will die.</p> <p>❖ आप्लुतं मारुतेनेह शरीरं यस्य केवलम्। भिन्नं पुरीषं तृष्णा च सदयो जहयात् स जीवितम्॥१४॥ (Ch.In.10/14) Occurrence of diarrhea and thirst in patient whose entire body is pervaded by aggravated vata, then this indicates proximal death</p> <p>❖ शरीरं शोफितं यस्य वाताशोफेन देहिनः। भिन्नं पुरीषं तृष्णा च सदयो जहयात् स जीवितम्॥१५॥ (Ch.In.10/15) Occurrence of diarrhea and thirst in patient whose body is swollen</p>
--	---

		<p>because of sotha roga of vatika type, indicate sign of proximal death.</p> <p>❖ पक्वाशयमधिष्ठाय [५] हत्वा सञ्ज्ञां च मारुतः। कण्ठे घुर्घुरकं कृत्वा सदयो हरति जीवितम्॥१८॥ (Ch.In.10/18) Occurrence of stertorous breathing (obstruction of breathing by kapha) in the throat and unconsciousness caused by the aggravated vata having its site of manifestation in pakvasya.</p>
2.	PITTA	<p>❖ हरिताश्च [२] सिरा यस्य लोमकूपाश्च संवृताः। सोऽम्लाभिलाषी पुरुषः पित्तान्मरणमश्नुते॥५॥ (Ch.In.9/5) A person having green coloration of veins, obstruction of hair follicles and desire for the intake of sour things succumbs to death being afflicted with the disease caused by the vitiation of pitta.</p> <p>❖ पित्तमूष्मानुगं यस्य शङ्खौ प्राप्य विमूर्च्छति [३]। स रोगः शङ्खको नाम्ना त्रिरात्राद्वन्ति जीवितम्॥२०॥ (Ch.In.9/20) The morbid condition in which pitta, reaches upto temporal area and accumulates there is known by the name of sankhaka. It kills the patient in three nights.</p>
3.	MAMSA	<p>❖ निचितं यस्य मांसं स्यात्त्वगस्थिष्वेव [३] दृश्यते। क्षीणस्यानश्नतस्तस्य मासमायुः परं भवेत्॥ (Ch.In.7/31) निचितमिति क्षीणं (Chakrapani) In emaciated person who has wasting of muscles with remnant of skin and bones only, then his residual life span is not more than one month.</p>
4.	SUKRA, MUTRA, PURISHA NISTHYUT &	<p>❖ शुक्रं प्रच्यवते स्थानादुन्मार्गं भजतेऽनिलः। क्षयं मांसानि गच्छन्ति गच्छत्यसृगपि क्षयम्॥५०॥ (Ch.In.12/50) When the person is going to die then ejection of sukra from unnatural way??, vayu will become unmarg gami and there will be deficient of mamsa and rakta.</p> <p>❖ निष्ठ्यूतं च पुरीषं च रेतश्चाम्भसि मज्जति। यस्य तस्यायुषः प्राप्तमन्तमाहुर्मनीषिणः॥१८॥ (Ch.In.9/18) If the sputum, stool and semen of a person sink in water, then wise physician should consider him as dying.</p>
5.	NAKHA	<p>❖ चेन्नखा वीतमांसशोणिताः पक्वजाम्बववर्णाः स्युः (Ch.In.3/6) If his nails are devoid of flesh and blood and black like ripe fruit of jambu, then this sign is indicative of proximal death of the patient.</p> <p>NAKHA/DANTA/PAKSHMA/MURDHINI-</p> <p>❖ नखेषु जायते पुष्पं पङ्को दन्तेषु जायते। जटाः पक्ष्मसु जायन्ते सीमन्ताश्चापि मूर्धनि॥५५॥ (Ch.In.12/55) Appearance of puspa in nails and adherence of mud like substance in teeth, matting of eyelashes and manifestation of simanta in the head.</p>
	DANTA	<p>❖ अस्थिश्वेता द्विजा यस्य पुष्पिताः पङ्कसंवृताः।</p>

		<p>विकृत्या न स रोगं तं विहायारोग्यमश्नुते॥१३॥ (Ch.In.8/13)</p> <p>A patient having morbid conditions like teeth becoming white like the colour of bone, appearance of white and flower shape spots over teeth and adhesion of mud like substance over them, then such patient cannot recover from the disease.</p> <p>❖ पुष्पाणि नखदन्तेषु पङ्को वा दन्तसंश्रितः। चूर्णको वाऽपि दन्तेषु लक्षणं मरणस्य [२] तत्॥२१॥ (Ch.In.1/21)</p> <p>Appearance of flower like spots in nails and teeth, and sticky powder-like substance over the teeth is an indicator of dying person.</p> <p>• Behavioural- दन्तैश्छिन्दन्नखाग्राणि नखैश्छिन्दन्निहिरुहान्। काष्ठेन भूमिं विलिखन्न रोगात् परिमुच्यते॥१८॥ (Ch.In.8/18)</p> <p>The patient who cuts tips of his nail by biting, clips hair by nail and writes on the ground with the help of stick, succumbs to the disease.</p> <p>❖ दन्तान् खादति यो जाग्रदसाम्ना विरुदन् हसन्। विजानाति न चेद्दुःखं न स रोगाद्विमुच्यते॥१९॥ (Ch.In.8/19)</p> <p>The patient who clinching teeth while awake, cries and laughs loudly and doesnot have the pain sensation, doesnot recover from the disease.</p>
	KESHA/LOMA	<p>❖ केशलोमान्यायच्छेत्, तस्य चेत् केशलोमान्यायम्यमानानि प्रलुच्येरन् न चेद्वेदयेयुस्तं परासुरिति विद्यात् (Ch.In.3/6)</p> <p>Absence of pain on plucking kesha or loma from any part of the body.</p>

E. ACCORDING TO MORBID INVOLVEMENT OF STRUCTURES IN SPECIFIC DISEASE

S.no	Disease	Structure involved
1.	GULMA	<p>❖ शूलाटोपान्त्रकूजाश्च दौर्बल्यं चातिमात्रया। नखादिषु च वैवर्ण्यं गुल्मेनान्तकरो ग्रहः॥ (Ch.In.5/12)</p> <p>A man who experiences severe pain, gurgling sounds in abdomen, intestinal peristalsis, excessive debility, discoloration of nails and other part, then he is going to die if he affected with gulma.</p>
2.	RAJYAKSHMA	<p>❖ शरीरान्ताश्च शोभन्ते शरीरं चोपशुष्यति। बलं च हीयते यस्य राजयक्ष्मा हिनस्ति तम्॥६॥ अंसाभितापो हिक्का च छर्दनं शोणितस्य च। आनाहः पार्श्वशूलं च भवत्यन्ताय शोषिणः॥७॥ (Ch.In.9/6-7)</p> <p>Chakrpani- शरीरान्ता हस्तपादादयः If a person has plumpness of the extremities but emaciation of the</p>

		trunk associated with diminution of strength, he dies of TB, associated with amsabhitapa (burning sensation in the shoulder region), hiccups, hemoptysis, anaha and parsavsula (pain in the sides of chest) lead to death of patient.
3.	HIKKA	❖ भ्रुवौ यस्य च्युते स्थानादन्तर्दाहश्च दारुणः। तस्य हिक्काकरो रोगः सद्यो मुष्णाति जीवितम्॥६॥ (Ch.In.10/6) Patients who suffering from hikka, if he develops such symptoms like dropping of eyebrows and severe burning sensation then he will die in some days.
4.	HRIDYA	❖ वाताष्ठीला सुसंवृद्धा तिष्ठन्ती दारुणा हृदि। तृष्ण्याऽभिपरीतस्य सद्यो मुष्णाति जीवितम्॥४॥ (Ch.In.10/4) Intense thirst in a patient suffering from a painful and fully manifested vatasthila (hard tumor caused by vitiated vata) in the cardiac region, patient with such symptoms is going to die in some days.
5.	PARIKARTIKA	❖ आमाशयसमुत्थाना यस्य स्यात् परिकर्तिका। भिन्नं पुरीषं तृष्णा च सद्यः प्राणाञ्जहाति सः॥१६॥ (Ch.In. 10/16) The patient having cutting pain originating from aamashya, if suffer from diarrhea and thirst, he dies soon. ❖ पक्वाशयसमुत्थाना यस्य स्यात् परिकर्तिका। तृष्णा गुदग्रहश्चोग्रः सद्यो जह्यात् स जीवितम्॥१७॥ (Ch.In.10/17) The patient having cutting pain originating from pakvashya, if suffer from thirst and spasm in guda then he dies soon.

F. MISCELLANEOUS ARISTA

S.No	Miscellaneous arista	Characteristics
1.	SWASA VISHYAK ARISTA	❖ दीर्घमुच्छ्वस्य यो ह्रस्वं नरो निःश्वस्य ताम्यति। उपरुद्धायुषं ज्ञात्वा तं धीरः परिवर्जयेत्॥१५॥ (Ch.In.8/15) If a person faints after a short expiration followed by a long inspiration, then he should be considered as nearing his end and must not be treated
2.	NISHTHYUT	❖ निष्ठ्यूते यस्य दृश्यन्ते वर्णा बहुविधाः पृथक्। तच्च सीदत्यपः प्राप्य न स जीवितुमर्हति [१] (Ch.In.9/19) If several colors appear in the sputum of a person and it sinks in water, then the person cannot survive.
3.	GATI VISHYAK ARISTA	❖ निकषन्निव [१] यः पादौ च्युतांसः परिधावति। विकृत्या न स लोकेऽस्मिंश्चिरं वसति मानवः॥४॥ (Ch.In.12/19) Morbid conditions like the rubbing of legs on the ground and dropping of the shoulder of an individual while running indicate his proximal death.
4.	SANDHI	❖ सहसा ज्वरसन्तापस्तृष्णा मूर्च्छा बलक्षयः।

		विश्लेषणं च सन्धीनां मुमूर्षोरुपजायते॥२३॥ (Ch.In.8/23) Sudden onset of fever, thirst, fainting, diminution of strength and looseness of joints then such person is succumbing to death.
5.	PULSATING RELATED ARISTA	❖ सततस्पन्दना देशाः शरीरे येऽभिलक्षिताः । ते स्तम्भानुगताः सर्वे न चलन्ति कथञ्चन ॥ (Ch.In.12/53) Complete cessation of pulsation in the parts of the body which pulsate constantly in normal condition
6.	OTHERS	❖ ऊष्माणः प्रलयं यान्ति विश्लेषं यान्ति सन्धयः। गन्धा विकृतिमायान्ति भेदं वर्णस्वरौ तथा॥५१॥ (Ch.In.12/51) Diminution of the usmas(factors responsible for the production of heat including digestion and metabolism), dislocation of joints, morbid change in the odor of body, hoarseness of the voice and impairment of complexion. ❖ वैवर्ण्यं भजते कायः कायच्छिद्रं विशुष्यति। धूमः सञ्जायते मूर्ध्नि दारुणाख्यश्च चूर्णकः॥५२॥ (Ch.In.12/51) Discoloration of the body, dryness in the orifices of the body and appearance of smoke and powdery substance like cow dung over the head is indicative of proximal death.

DISCUSSION

The work elucidated arista mentioned in Indriya sthan of charak samhita in detail emphasizing morphological aspect. Completing in 6 domain the study founds in sensory organs first. Where decrease of natural characteristics associated with ascertain appearance of unnatural things has highlighted. In relation to eye the distorted vision, bulging, continue watery discharge and blinking are some symptoms has stressed. Eye ball lodged in Tenon's capsule has 3 coat i.e., Fibrous, Vascular and nervous. Perception of vision occurs through formation of image, accommodation of light by contraction of ciliary muscles and Iris. It reaches in retina i.e., nervous coat then optic chiasma followed by Optic radiation finally visual cortex i.e., Area no 17. The lens kept in position by suspensory ligament while tears passes through nasolacrimal duct, now obstruction in the passage, loosening of ligament, damage of retina, involvement of geniculate body as well as destruction of visual cortex are the places where its morbidity cause arista lakshana.

Either morbidity or natural deterioration affects sensory organs like tongue and its stiffness, loss of perception, coated with thorny appearance are certain sign of mortality. Pathology of gustatory pathway might lead to the alteration of taste; partial loss (hypogeusia), complete loss (ageusia) or sensation of altered taste (dysgeusia), it can cause due to injury to Lingual

Nerve branch of Glossopharyngeal Nerve, Diabetes Mellitus, Pernicious Anemia, etc. In a person undergoing chemotherapy and radiotherapy treatment, morphological changes in taste buds cell, sometimes deaths of taste bud cell can occur due to higher stage of cell turnover. All these changes are seen as arista in jivha.

Touch achieve by a receptor with sensory nerve ending, during the time of fatality or towards the mortality anato-physiological alteration has taken. Its exacerbation or total absent both may indicate mortality. Arista related to skin of limbs opines that skin become cold probably due to decrease amount of vasculature in the dermis layer or stabdh which is in pathsudhi mentioned as prasupti clearly indicates the loss of sensation by receptors.

Deficiency in visual reflex occur in age or earlies morbidity. As vision is a complex process of receptors, carry through nerve fibres, image formation through lens. An observation of object in lens also depend on clarity of cornea.

In immune compromised patient seborrheic dermatitis is more prevalent. The characteristics as Gomaya churn may be due to the deeper involvement of tissue as seen in HIV patients. Seborrheic dermatitis are prevalent in HIV patient around 85%.

Shira considered as the place where all the sensory apparatus le and obviously its morbidity enhance morbidity. A study quote that Focal hyperhidrosis with neck rigidity or stiffness can be seen in various condition like occipital lobe epilepsy, atonic seizures, spinal cord injury at the level of cervical spine, intramedullary spinal cord tumors and post traumatic syringomyelia. (Prasad mamidi et al Neurological conditions in Charak Indriya Sthan an explorative study).

In relation to greeva it is mentioned that person is unable to swallow the food, it denotes Oropharyngeal dysphagia, dysphagia or swallowing disorder. Oropharyngeal dysphagia is abnormalities affecting the upper esophageal sphincter, pharynx, larynx or tongue in isolation or combination. It is cause by certain neuromuscular disorder, stroke, head trauma and neurodegenerative disease etc.

Arista related to lips i.e pakwajambu varna it indicates lack of oxygen in blood i.e. cyanosis (peripheral) it associated with respiratory muscles weakness, injury to medulla oblongata. It may be an early sign of respiratory failure.

Tasya cheta kesha lomani. It denotes decreased or absence of sensitivity of pain. In most patient with peripheral neuropathy loss of sensation is directly attribute to severity or distributed loss of there sensory receptors nerve fibrea and neurons.

In pitta “haritash siras” here distended and engorged, green colored veins can be seen all over the enlarged abdomen (caput medusae) seen in portal hypertension which indicates as step of future mortality.

Nisthyutam ambhasi majjati- in chronic airway disease, carcinomas, tuberculosis, cavitary pulmonary disease, lungs abscess and various infectious disease can leads to the increase specific gravity of sputum due to presence of pus cells, cell debris, bacteria and various other abnormal component of sputum.

CONCLUSION

Indriyasthan is a special contribution of Acharya Charak, though glimpse also available in Kashyap Samhita and Bhela Samhita. Symptoms exhibit mortality that may be instant or immediate later. Morphological alteration mainly found in chapter 1, 3,4,5,8,9,10 and 11th. Here mostly deeper tissue get involve damaging functional aspect too. Study reveal great deuteriation or destruction of sensory organ along with viscera's and organs in different regions. This morbidity altered into mortality in certain disease like Gulma, Rajyakshma, Hikka etc.

REFERENCES

1. Charak Samhita, svimarsh “vidhyotini” hindivyakhya, by Pandit Kashinath shastri and Dr gorakhnath Chaturvedi, chaukhamba Bharti academy, Varanasi, 2014.
2. Chakarapani “Ayurvedadipikavyakhya”, charak Samhita, chaukhmaba surbharti prakshan, Varanasi.
3. Prasad Mamidi et al, Neurological conditions in Charak indriya sthan- an Explorative study, Int.J Complemet alt med., 2020; 13: 107-119. DOI: 10.15406
4. Reza Shaker, Oropharyngeal dysphagia, Gastroenterology and hepatology Pubmed, Sept. 2006; 2(9): 633-634.