

ROLE OF SENSORY ORGANS IN BODY AND THEIR PHYSIOLOGICAL
CONSIDERATION AS PER AYURVEDADr. Parinita R. Kunkulol*¹, Dr. Mahendra Narayanrao kamble² and Dr. Dharmesh P Nahata³¹Associate Professor, Sharir Kriya Department, Dr Rakesh Kambe Ayurved College, Turkhed, Murtizapur, Dist. Akola, India.²Associate Professor, Sharir Kriya Department, Shri Gajanan Maharaj Sansthan's Ayurved Mahavidyalaya, Pusad. Dis. Yavatmal, India.³MS (Strirog-Prasutantra), Director, Om Hospital & Maternity Home, Ghoti-Igatpuri, Nashik, India.

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ABSTRACT

The term 'Sharira Vicaya' in Ayurvedic literature refers to the study of the functional aspects of the human body, encompassing the detailed knowledge of its normal functioning. This knowledge of the human body, or 'Śarira', is considered pivotal in comprehending the various factors that influence one's health. Acharya Charaka emphasized the significance of Indriya as a fundamental tool for distinguishing between living and non-living entities. In contrast to contemporary scientific understanding, Ayurveda extends the scope of Indriyas beyond their structural function as sense organs, incorporating their role as instruments for acquiring knowledge, according to classical texts. Indriyas are considered to be Panchabautika, while being classified as Gyanendriya, Karmendriya and Ubhayaindriya. The Gyanendriya or sensory faculties within the body merge with the Mana and facilitate the perception of knowledge.

KEYWORDS: Ayurveda, Gyanendriya, Senses, Indriya, Physiology.

INTRODUCTION

The intellectual aspect plays a pivotal role in the acquisition of knowledge pertaining to the respective *Indriya*. Each *Gyanendriya* predominantly corresponds to one *Mahabhuta*, receiving only the qualities of that particular *Mahabhuta* in the form of stimuli. This fundamental principle elucidates the rationale behind the reception of specific sensations by the corresponding *Indriya*. *Indriyas*, or sense organs, serve as the means through which *Atma* attains knowledge. Moreover, the regulation of these *Indriyas* is deemed crucial and is a principle that should be observed and practiced to achieve spiritual well-being. *Acharya Chakrapani* has indicated that *Indriya* means *Prana*, thereby suggesting that *Indriyas* are the organs that exhibit signs of life or vitality. *Charak Samhita* specifically in the *Indriya Sthana* of the *Arista Lakshana* provides a detailed account of the various characteristic signs and symptoms associated with the *Indriyas*, which signify the approach of death, termed as *Arista Lakshana*.^[1-4]

Classification

- ✓ **Internal:** *Mana, Buddhi* and *Ahamkar*
- ✓ **External:** *Panch-Gyanendriya*

External or dependent *Indriya* are five as follows

- ❖ *Shrotra:* Related with the perception of Sound
- ❖ *Jihva:* Related with the perception of Taste
- ❖ *Grana:* Related with the perception of Smell
- ❖ *Tvak:* Related with the perception of Touch
- ❖ *Chakshu:* Related with the perception of Vision.

Most Important *Indriya* out of all is the *Gyanendriya* which is responsible for the perception of vision.

Ayurveda provides profound insights into the intricate workings of the human body, including the physiology of the sense organs. Sense organs, known as *Indriyas*, hold significant importance in maintaining overall well-being. Ayurveda recognizes five primary *Indriyas*: *Shrotra*, *Chakshu*, *Ghrana*, *Jihva* and *Twak*. These sensory organs are responsible for perceiving the external environment and relaying crucial information to the mind for interpretation and response.^[4-6]

Physiology of *Indriya*

The *Indriyas* perceive external stimuli in conjunction with the *Mana*, which subsequently transmits the information to the *Atma* for conscious experience.

Initially, this perception remains within the realm of the mind, and practical implications, whether advantageous or detrimental, are determined subsequently. The culmination of this cognitive process results in the development of intellectual responses, driving the individual to speak or act in accordance with the perceived stimuli. Three *Doshas* play vital role in the regulation of the functioning of *Indriya*

- ❖ *Prana Vayu* regulates the functions of *Buddhi* and *Indriya*.
- ❖ *Udan Vayu* is responsible for speech produced by *Jihva*, it governs both the sensory and motor aspects of *Rasanindriya*.

- ❖ *Vyan Vata* is associated with the sensory and motor components; it influences the taste sensation.
- ❖ *Alochaka Pitta* aids in the functioning of *Chakshurendriya*, which is responsible for vision.
- ❖ *Bhrajaka Pitta* supports touch sensation in the skin.
- ❖ *Bodhak Kapha* governs the taste sensation of *Rasanindriya*.

Vata governs movement and communication, *Pitta* is responsible for transformation and perception, while *Kapha* provides stability and structure. The equilibrium of these *Doshas* is crucial for ensuring the optimal functioning of the *Indriyas*.^[5-7] Various organs of body are acts as *Indriyas Adhishtaanas* (Figure 1).



Figure 1: Adhishtaana of Indriya

Functioning of Specific Sense Organ

➤ *Shrotra* (Hearing)

The essence of *Shabda* assumes an ethereal form and traverses through the expanse of ether, setting off vibrations in our eardrums. These vibrations then stimulate the movement of bones within the ear, conveying the sound waves to the inner ear. Subsequently, these vibrations are transformed into electrochemical signals, which travel to our brain, where they are comprehended by our consciousness.

➤ *Sparshana* (Touch)

Various types of touch receptors, namely thermoreceptors, nociceptors and mechanoreceptors, play a pivotal role.

➤ *Chakshu* (Sight)

Perception of light occurs when luminance from a source such as the sun or an artificial light source reflects off an object. This light then travels through the eye, stimulating the photoreceptors in the retina. Subsequently, an electrochemical impulse is transmitted to the brain for interpretation.

➤ *Rasana* (Taste)

In the area of taste, the water element play important role in the perception of sense. It serves as the medium through which saliva comes into contact with molecules responsible for taste. Different areas of the tongue respond distinctively to various taste-bearing molecules present in foods, thereby enabling the discernment of diverse tastes by our consciousness.

➤ *Ghraana* (Smell)

The olfactory experience involves the physical particles or molecules permeating through our nostrils as we inhale. These particles vary in size, with some being substantial while others are minuscule. They stimulate nerves at the rear of our nasal passages, and the resulting signals are then comprehended by our consciousness.

Role of *Indriya Buddhi*

The term "*Indriya Buddhis*" refers to the fundamental innate understanding of the senses, enabling them to perceive information about their respective sensory objects. *Indriya Buddhis* aids in the acquisition of knowledge concerning both instantaneous sensory perception and enduring cognitive understanding. Sensory perception denotes the fleeting comprehension

of objects as they interact with the sensory organs, while cognitive understanding represents a conclusive comprehension achieved over a specific duration of contact between the sensory organs and the object. *Indriya Buddhi* possesses an analytical quality that facilitates the examination and comprehension of knowledge related to the object it comes into contact with sensory organs.^[7-10]

CONCLUSION

Ayurveda offers deep understanding of human body, including physiology of the sensory organs. These sensory organs, referred to as *Indriyas*, which play a vital role in sustaining overall health. Ayurveda identifies five fundamental *Indriyas*: *Shrotra*, *Chakshu*, *Ghrana*, *Jihva* and *Twak*. The *Indriyas*, in coordination with the *Mana*, perceive external stimuli, forwarding this information to the *Atma* for conscious experience. Initially, this perception resides in the domain of the mind, the outcome of this cognitive process leads to the formation of intellectual reactions, prompting individuals to communicate or behave in accordance with the perceived stimuli. The regulation of *Indriya* functioning is significantly influenced by three *Doshas*.

REFERENCES

1. Yogeshwari Ranawat et al: Importance Of Doshas For Regulation Of Indriya For Maintaining Health: A Critical Review. International Ayurvedic Medical Journal, 2022; 140.
2. Tripathi B, Charak Samhita vol. 1 Agniveshakrita, Charak Chandrika hindi commentary chaukhamba surbharti prakashan, Indriyopkramaniya adhyaya, 2014; 192.
3. Tripathi B, Charak Samhita vol. 1 Agniveshakrita, Charak Chandrika Hindi commentary chaukhamba surbharti prakashan, trimarmiyasiddhi adhyaya, 2014; 1270.
4. Shastri AD. Sushruta Samhita, Ayurveda Tatwa Sandipika Hindi commentary, Chaukambha Sanskrit sansthan, dhamnivyakaransharir adhyaya, 2018; 93-94.
5. Shastri AD. Sushruta Samhita, Ayurveda Tatwa Sandipika Hindi commentary, Chaukambha Sanskrit sansthan, doshadhatumalakshayavridhhi vigyaniya, 2018; 84.
6. Agnivesha. Charaka Samhita. Reprint. Yadav T. reprint. Varanasi: Chaukhamba Publication, Sutrasthana, 2009; 8/8.
7. Agnivesha. Charaka Samhita. Reprint. Yadav T. reprint. Varanasi: Chaukhamba Publication, Sharirasthana, 2009; 8/14.
8. Gupta K, Mamidi P. Pancha Indriya Buddhi: Association cortices. Int J Yoga - Philosop Psychol Parapsychol, 6; 61-5.
9. Dr. Krithika U. Pai, Dr. Pratibha Kulkarni. Critical analysis on physiological understanding of Indriya. J Ayurveda Integr Med Sci., 2021; 1: 290-293.
10. Jadavaji Trikamji Acarya., editor. Varanasi: Chaukhamba Orientalia. Sushruta samhita, reprint, Sharir Sthana, 2008; 9/5.