

DISCRIPTIVE AND STRUCTURAL STUDY OF KANTHPRANAYATAN**Jain Atul S.**

Asst. Prof. & H.O.D. Sharir Rachana Dept. Vidharbha Ayurved MahaVidyalaya Amravati, Maharashtra, India

ABSTRACT

In *Sutrasthanam* as well as in *Sharirasthanam* Acharya Charak has described “*Dashpranayatan Kalpana*” which has very much Clinical importance. It is the need to understand this concept practically, because Pranayatan means the special place of *Pran /Soul* .Thus being a site of *Pranvayu* “*Kanth*” has extreme importance. Hence specific site of *Khanthpranayatan* has to be decided & studied anatomically. For this purpose a detailed Cadaveric dissection was carried out .Depending upon the Finding of dissection and the texts of Ayurvedic & modern sciences , it is concluded that - *Pran* means *Jeev Or Soul* ,it occupies whole the body but the special place of *Pran* mentioned by *Acharyas* are called *Pranayatan* .’*Kanth*’ is the important *Pranayatan*, the structures should be considered *kanth* as Larynx, *kanthnadi* means Trachea & *kanthsira* indicates the carotid arteries & Jugular veins. The main function of *khanth* are respiration,Speech/voice production and it also helps in deglutition .

Key Words:- *Pranayatan, Kanth,Pran, kanthnadi ,larynx*

INTRODUCTION

In *Charaksamhita* Acharya Charak has described “*Dashpranayatan* concept” in *Sutrasthanam* as well as *Sharirasthanam*. It is the basic concept having much clinical importance; so it is the need to understand this concept practically.¹ As *Acharyas* have very wisely made the suggestion that the knowledge of the anatomical structure of the body is of great value, it helps the surgeons as well as physicians to treat the related diseases.

In *Sutrasthanam* while describing “*Dashpranayatan* concept” Acharya Charak has explained ten vital seats where vital breath is located such as- two temples (*shankh*),three vital organs (*Hridaya, shir ,Basti*),throat (*Kanth*),blood(*Rakta*) ,semen (*Shukra*), essence of our body (*Oja*) ,& ano-

rectal region (*Gud*)¹ Any type of injury or diseases to these places will lead in death. The learned physician who knows about these vital seats, sense organs, root of consciousness and diseases, is known as the promoter of vital breath.¹

In *Ayurveda* there are several references of *Pran* which goes in favors of *Prana Vayu* so the aim is to study *Kanth Pranayatan* which has been mentioned as one of *Sthan* of *Pranvayu*.³ As Healthy life depend upon the ‘*Prakrut Pranvayu*’ , doctor should have the knowledge of *Kanth Pranayatan*. Thus being a site of important *Physiological* factor ‘*Pranvayu*’ *Kanth* has extreme importance. Hence specific site of *kanth Pranayatan* has to be decided & studied anatomically. With the help of

Ayurved and modern literature and also carrying out dissection, I made a little effort to study “Kanth Pranayatan”.

As per modern science *Kanth* means we can consider the region front of the neck as it has been said *Greevaya puro bhag*⁵. It is bounded by lower border of mandible superiorly and inferiorly by the sternocleidomastoid muscle bilaterally.¹³ There are numerous deep structures in the neck, for convenience they are grouped as follows.

A- Important group which contains carotid arteries, internal jugular veins, nerves, cervical trachea and esophagus, pharynx and larynx.

B- Miscellaneous group contains anterior triangle, thyroid-parathyroid gland and thymus.

So as per the *Ayurvedic* references we just thought group A to compare with *Kanth pranayatan*, it is discussed in details below.

Aim & objectives:-

1) To collect the references from different

Ayurvedic texts regarding the concept of *Pranayatan*.

2) To collect the references from different *Ayurvedic* texts regarding the concept of *Kanthpranayatan*.

3) To decide the site of *Kanthpranayatan* according to *Ayurvedic Rachana* sharir.

4) To decide the site of *kanthpranayatan* according to Cadaveric dissection.

5) To take the photographs of dissected part to make all the *Peculiarities* clear.

6) To come to a conclusion regarding site & structure of *Kanth Pranayatan*.

Material & Methods:-

This article is conceptual; all the available references of *Pranayatan*, have been collected from *Ayurvedic* treaties & *Modern science*. Websites also have been searched for *Pranayatan*. For this study a detailed *Cadaveric* dissection was performed. This study was carried out at *Govt. Ayurved college Nagpur* from 2001 to 2003. To conclude the study, all available *Ayurvedic*



litterature referred, and a humble attempt has been made to draw conclusion

sion.

Results:-

Front of the neck region



After removal of deep structure



Structures seen larynx with trachea



Removal of larynx

DISCUSSION

1) *Acharya Charak* has described definition of *Pranayatan* and *Dashpranayatan* in seventh chapter of *sharirasthanam*. In 29th chapter of *Sustrasthanam* while narrating the *Pranayatan* he has told though *pran* occupies whole of our body there are the special seats/place of *Pran* which are called as *Pranayatan*. He also told that if any injury/accident will happen to this place it will lead in death. ¹

As *Charaksamhita* has great importance in *Chikitsa* (medicine); *Charak* has told “*praneshana*” i.e will power for aliveness and “*Pranabhisar Vaidya*” i.e. perfect doctor who saves the patient’s life. ⁴ It means *Pran / Jeev/ Soul* is all about, so we should have expertise knowledge of this *Pranayatan* to become an expert doctor.

Two *shankh* (temporal bone), *Hridaya* (heart), *Shir* (head), *Basti* (urinary bladder), *kanth*, *Rakt* (blood), *Shukra* (semen), *Oja* (essence of our body), *Guda* (Anal region) are the ten places where *pran* lives specially. ²

Also *Nabhi* (Umbilicus) and *Jivha-bandhan* (frenulum linguae) are mentioned as *Pranayatan* in *Sharirasthanam* instead of two *Shankh*, Other eight remains same. In this way if we see all Ayurvedic reference related to *pran* all they go in favour of *Pranvayu*, off course there are different opinion of commentaries. ⁴ In case of *Kanth Pranayatan* the *pran* word indicates *pranvayu*, from above all description the nature of *pran & Pranayatan* becomes clear.

2) In reference to *kanth* many references has been found.

Instead of *kanthPranayatan Acharya Charak* has used the word *kanth* to say the position of umbilical cord around the Neck/*kanth* of the fetus. He also told if mucus remains as it is in the throat/*kanth* of the fetus he/ she doesn't cry immediately after birth; here the *Kanth* word indicates air passage.

In *Shabd kosha* if we see *Nirukti* of *Kanth*, the organ which helps in the production of voice /speech is *Kanth* i.e. larynx and the organ which helps mainly in deglutition is *Gal* i.e. *Pharynx*.¹⁰ In *Ashtang sangraha*, *Acharya Vagbhat* has mentioned *Kanth* as *Greeva puro bhag*, means the front of the neck region.⁵

In *Sushrutsamhita Shushruta* used the word *kanthnadi* while explaining the *mandal sandhi* i.e. the annular joint of Tracheal cartilages. *Sadhyapranahar marmma* consists *kanthsira*, *sushrutra* insists *kanthsira* lies on both sides of *kanthnadi* i.e. Trachea and any type of injury to it causes immediate death. While performing the dissection the main structures on both side of Trachea seen are common carotid arteries & jugular veins, vagus nerve etc. Along with *kanthnadi*, *Kanthsira*, *Acharya sushrutra* has mentioned seventeen types of *kanthrog* in *Nidansthan*.³

3) According to *Bhelsamhita* among the ten caves of our body *kanthnadi* is one of caves/*Guha*.⁷ In *Ashtang Sharir vaidya Variyar* has told *kanth* as a *Karmendriya*. He has given *kanth* as synonym of *swaryantra* /larynx and said that the function of it is production of voice/speech.⁸ *Vishudh charkra* lies at *kanth Pradesh* what it has mentioned in *patanjali yoga*. In *kautiliya Arthshstra* *savyanjana kanth* & *Nikruth kanth* are mentioned. Death due to throttling or strangulation means homicidal death

should be consider as *savyanjana kanth*, While *nikruth kanth* pretends suicidal death I.e. due to hanging.¹¹

4) If we see references as concern with physiology, *Acharya Charaka* has explained *kanth* as a *sthan*/ place of *Pranvayu*. In 28th chapter of *Chikitsasthan* he has told *kanth* as *Udan vayu's* place & *wani* /speech is the main function of *kanth*.⁴ *Acharya Vagbhat* also has explained *kanth* as *Pranvayu's* place. In fifth chapter of *Purva khund Acharya Sharagdhara* has narrated respiration process very interestedly where *kanth* has been considered as air passage. i.e. Larynx.⁶

5) As shown in photographs while performing the Cadaveric dissection the front of the neck region is studied in details. After retraction of superficial structure the deep structure of the neck has been observed. The air passage Larynx With trachea and the food passage Pharynx with Esophagus were Separated.¹² At the same time the structure on the both side of *kanth* like carotid arteries Jugular veins, Vagus nerve, superior & recurrent laryngeal nerve, superior thyroid and lingual artery etc. important structure are found to be considered as *kanth Pranayatan*.

6. The Larynx has a triple function that of an open valve in respiration, that of a partially closed valve whose orifice can be modulated in phonation and that of a closed valve protecting the trachea and bronchial tree during deglutition.¹⁴

CONCLUSION

By scrutinizing all the *Ayurvedic* and modern texts and the cadaveric dissection, it has been concluded that, *Pran* means *Jeeva* or Soul it occupies whole the body but the

special place of *Pran* mentioned by *Acharyas* are called *Pranayatan*. *Kanth* should consider as a *Pranayatan*/vital place because the structures observed are of that much importance. We should think the structures by word, *Kanth* as larynx, *Kanthnadi* as Trachea, *Kanthsira* as carotid arteries and Jugular veins. The functions of *kanth* are respiration, speech/voice production and it also helps in deglutition.

REFERENCES

1. *Charak samhita - Purvardh*, 7th edition 2000, *Chaukhamba surbharti prakashan Varanasi* Vd. *Bramahanand Tripathi*, *Sutrasthan chapter 29 Verse 3,4 & Sharir sthan chapter 7 Verse 9*
2. *Charak samhita - Comm. Chakrapanidatta*, Ed. *R.K. Sharma, Bagawandas*, *Chaukhamba Sanskrit series, Varanasi*, 1984. *Sutrasthan chapter 29 Verse 3,4 & Sharir sthan chapter 7 Verse 9*
3. *Sushruta Sharirsthan*, *Ayurved rahasya Dipika*, 7th edition 1978, Dr *Bhaskar Govind Ghanekar*, *Meherchand Lachmandas publication, New Delhi*. *Sutrasthan chapter 17 Verse 13 & Sharir sthan chapter 6 Verse 9, 28 & Chapter 5 Verse 33 & Nidansthan Chapter 1 Verse 12 & 13*
4. *Ayurved Dipika - Charak samhita* *Comm. Chakrapanidatta*, 3rd edition 1941, *Vd. Yadavji Tricamji Acharya, Satyabhamabhai Pandurang*, *Mumbai. Sutra Sutrasthan chapter 21 Verse 4 & Chikitsa sthan chapter 28 Verse 3*
5. *Ashtangsangrah, Induvyakhya*, 1st edition 1980, *Vd. Anant Damodar Aathawale*, *Shree Aatreya Prakashan, Pune*. *Sutrasthan chapter 3 Verse 25 & Sharir sthan chapter 5 Verse 59, 60*
6. *Sharangethar samhita*, 3rd edition 1984, *Acharya Radhakrishna parashar, Shree Baidathnath Ayurved Bhavan Ltd, Nagpur.*, *Puvakhand chapter 5 Verse 90*
7. *Bhel samhita*, 1977, *Vd. V.S Venkatsubrahmanyam Shastri, Vd Vc .Rajrajeshwar Sharma, Kendriya Anusandhan parishad. Sharir sthan chapter 4 Verse 27*
8. *Ashtang Shariram* 1st edition 1942, *Vd V.S. Wariyar, P.M Wariyar*.
9. *Parishabdham Shabdarth shariram*, 2 edition 1979, *Pandit Damodar Sharma Gaud, Shree Baidathnath Ayurved Bhavan Ltd, Nagpur*.
10. *Ayurvediya shabdakosh*, 1st edition 1968, *Veni Madhav shastri Joshi, Maharashtra Rajya Sahitya & sanskriti mandal*
11. *Kautliya Arthshastra*, 1st edition 1969, *Vedratna Udayvir Shastri, Meherchand Lachmandas publication, New Delhi*
12. *Cunningham's manual of practical Anatomy*, 13th edition 1966, *G.J. Romanes, E.L.B.S & Oxford University Press*.
13. *A New System of Anatomy*, 1st edition 1961, *Sir solly Zuckerman, Oxford Medical Publications*
14. *Functional Anatomy* 3rd edition 1966, *David Sinclair, blockwell Publication*.

CORRESPONDING AUTHOR

Dr. Atul S. Jain

Asst. Prof. & H.O.D, Sharir Rachana Dept.
Vidharbha Ayurved Maha Vidyalaya
Amravati.

E-mail: atuljainamt@gmail.com