



***KALA SHARIR: AN OVERVIEW***

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**ABSTRACT:**

Being a medical science, *Ayurveda* is concerned with the human body. *Ayurveda* has a wide range of ideas on the human body. One of them is the concept of *Kala*. The term '*Kala*' is used in classical texts to indicate a variety of things, including the indistinct, a unit of time, a membrane, etc. *Kala* refers to *Guna* or property and indicates its physiological entity. In the context of *Sharir Rachana*, demarcating line between *Dhatu* and *Ashaya* is referred to as a *Kala* and in contemporary science it can be interpreted as a minute or membranous structure. These *Kalas* are more than just simple anatomical structures; they also have a purpose and have certain characteristics. We learn about the significant bodily membranes and layers from *Kala Sharir* with respect to disease. They create and manage the *Dhatus* as well. There are seven different varieties of *Kala* described in ancient *Ayurvedic* literature by various eminent scholars; particular *Kalas* are found at particular locations. The proper conceptual understanding of these concepts is very essential. So here an attempt is being made to analyze the concept of *Kala* for its better understanding.

**Keywords:** *Kala*, *Dhatu*, *Ashaya*, Membrane

## INTRODUCTION

Being a medical science, *Ayurveda* is concerned with the human body. *Ayurveda* has a wide range of ideas on the human body. One of them is the concept of *Kala*. The term '*Kala*' is used in classical texts to indicate a variety of things, including the indistinct, a unit of time, a membrane, etc. *Kala* refers to *Guna* or property and indicates its physiological entity. In the context of *Sharir Rachana*, demarcating line between *Dhatu* and *Ashaya* is referred to as a *Kala* and in contemporary science it can be interpreted as a minute or membranous structure. In the *Garbhavyakarana Adhayaya*, which explains the order of organogenesis through tiny structures, *Sushruta* describes it after *Twak*. To clarify the idea and structure, the issue is supplemented by a variety of examples from the environment and lifestyle. Commentator *Dalhana* also explores several logical ideas and makes an effort to provide a precise explanation.

In *Sharir Sthana*, Maharshi *Sushruta* has described the '*Sapta- Kala*' concept in *Sharir Sthana* which is an evidence of microscopic exploration. *Dhatu* resides in *Ashaya*, and the innermost lining of the *Ashaya* is termed as *Kala* i.e. '*Dhatvashyaantarmaryada Kala*'.<sup>[1]</sup>

The term *Dhatu* highlights all the basic elements which turn into three main functions viz. nutrition, sustenance and growth in general while in specific it can be accentuate under *Saptadhatu* viz. *Rasa*, *Rakta*, *Mamsa*, *Meda*, *Asthi*, *Majja* and *Shukra*, indicate different tissues of the body. They contribute structural architecture.<sup>[2]</sup>

*Dhatu* is formed over a number of stages, the first of which is when it takes the form of a liquid known as *Dhaturasa*. *Rasa Dhatu*, first among them *Saptadhatu* and it is having prime importance of all *Dhatu*, as it is formed out of *Ahara Rasa* (essence of food) after *Saara Kitta Vibhajana* (metabolic transformation). It is supposed to nourish the all other *Dhatu*. *Rasa Dhatu* and *Ahara Rasa* are different entities. *Rasa Dhatu* is the more transformed form of *Ahara Rasa* with an ability to nourish all other six *Dhatu*. We can say *Rasa Dhatu* is formed from this *Ahara Rasa*.<sup>[3],[4]</sup>

The word '*Ashaya*' is derived from *Dhatu* '*Shee*' with '*Ach*' *Pratyaya*. Meaning of the word is place, abode. Hence, *Ashaya* can be defined as hollow space, abode or places meant for occupancy. They are occupied by essential ingredients needed for body functioning.

*Kala* is a thin membranous entity, which lines the internal cavity of the *Ashayas*

(the organs that hold the vital elements), blood vessels, and fibrous capsules of the joints, and so on.

*Swaroop* of *Kala* also mentioned by *Acharyas* according to them, *Kala* is covered with *Snayu* which can be called as muscular layer; spread like *Jarayu* that is amniotic fluid; smeared with *Shleshma* that is enveloped with mucus.<sup>[5]</sup> All these three structures may or may not necessarily be present in each *Kala*, even one or two of the above-mentioned structures may be found existing in the *Kala*. There are seven numbers of *Kala* described in all *Samhitas*.<sup>[6]</sup>

#### AIM AND OBJECTIVES

1. Review of concept of *Kala* from *Ayurveda Classics* and modern literature
2. To find out probable co-relations in modern anatomy.

#### MATERIAL AND METHODS

Relevant information regarding *Kala Sharir* has been gathered from *Ayurvedic Classics* and other scientific literatures, along with websites, journals and published articles.

#### DISCUSSION

Among *Sapta Kala* first one is *Mamsadhara Kala* described by all ancient scholars which is present inside the muscles, and which allows the *Siras* (veins), *Snayu* (ligament) and *Dhamani* (arteries) to spread

their branches inside the muscles. *Acharya Sushruta* has compared the anatomical picture of *Mamsadhara Kala* with that of lotus stalk present in muddy water.<sup>[7]</sup> In anatomy point of view it can be compared as intramuscular septa, aponeurosis, and fibromuscular structure.

The second *Kala* is *Raktadhara Kala* which allows blood to flow in blood vessels. Blood circulates with in arteries & veins. Therefore all the blood manufacturing & haemopoietic organs like *Yakrit* (liver) & *Pleeha* (spleen) are the sites of *Raktadhara Kala*.<sup>[8]</sup> This *Kala* can be easily compared with endothelial lining of arteries, veins & lymphatics.

Third *Kala* is *Medodhara Kala*. As per *Susruthacharya*, main sites are *Udara*, *Anu Asthi* and *Sthoola Asthi*. In *Sthoola Asthi* it is called as *Majja* and on other sites /other bones it is *Sarakta Meda*. On continuation of *Shloka*, further *Acharya* clarified that pure essence of *Mamsa* is called as *Vasa*.<sup>[9]</sup> *Udara*, *Anu Asthi*, *Sthool Asthi* and *Shiras (Kapala Pratichanna Mastishka Masthulungakhya)* are the sites of *Medodhara Kala* as depicted by *Vagbhattacharya*.<sup>[10]</sup> *Medodhara Kala* is the fascia covering or any fibrous tissue or serous membrane which covers the adipose tissue depots. *Meda* (fat) is present over the abdomen and small bones of all living beings.

Fourth *Kala* is *Sleshmadhara Kala*, *Sleshak Kapha* (synovial fluid) is supported by *Sleshmadhara Kala*. All *Sandhis* (joints)<sup>[11]</sup> exhibit this and it can be comparable to the lubricant in a wheel axis that allows for unrestricted movement. Similarly the *Sleshak Kapha* (synovial fluid) with the *Sleshmadhara Kala* allows all *Sandhis* joints to move freely on their respective axis. Hence *Sleshmadhara Kala* is the synovial membrane present in all the joints. Fifth *Kala* is known as *Purishdhara Kala*. This *Kala* is meant for supporting *Mala* (faecal matter). *Pakwashaya* is the main site for *Purishdhara Kala*. It has property of separating *Kitta & Sara Bhaga* right from *Unduka* (caecum).<sup>[12]</sup> Mucous membranes present inside the large intestine formed from epithelial tissues could be considered as *Purishdhara Kala*.

Sixth *Kala* is *Pittadhara Kala*. *Pittadhara Kala* was explained by *Acharya Sushruta* as holding four different kinds of food (i.e. *Asita, Khadita, Leedha, Peeta*) propelled from *Amashaya* on its way to *Pakwashaya*. It is situated in between the *Pakwashaya* and *Amashaya* and it is known as the '*Grahani*'.<sup>[13]</sup> *Pittadhara Kala* can be compared as mucous membrane of small intestine.

The last & seventh *Kala* identified by *Sushruta* is *Shukradhara Kala*. This *Kala* is

functionally present all over the body in all living being. *Indu* explains that it passes beyond the two finger-opening of *Basti* and gets located in right side in the passage of urine.<sup>[14]</sup> This can be compared as mucous membranes of the testes.

## CONCLUSION

*Kala Sharir* described in *Ayurveda* compendia is unique concept of *Ayurveda Sharir*. By the definition it is clear that *Kalas* are limiting membranes between *Dhatu* and *Ashaya* which are seven in number. Description of *Kala Sharir* gives us knowledge about important layers and membranes of the body which take part in various functions of body i.e. secreting enzymes / hormones, absorption, nutrition, etc.. It also produces and holds important components of the body like *Mamsa, Rakta, Meda, Shleshma Purisha, Pitta* And *Shukra* etc. It also helps in proper diagnosis and management of the disease. Since *Kalas* are sites of production or holding many important components, the diseases also should logically have origin from them or atleast show their initial manifestation in the *Kalas*. We can correlate structurally with fascia, fibrous membrane, mucous membrane, serous membrane.

## REFERENCES

1. Kaviraj Dr. Ambikadutta Shastri, (editor). *Sushruta Samhita of Sushruta*,

- Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 8. Varanasi: Chaukambha Sanskrit Series;2012:30
2. Sharma P.V, (editor). Sushruta Samhita of Sushruta, Sutra sthana; shonitvarnaniya : Chapter 14, Verse 20. Varanasi: Chaukambha Orientalia;2012:104
3. Vaidya Jadavji Trikamji, (editor). Commentary NibandaSangraha of Dalhana on Susruta Samhita of Susruta,Sutrasthana. Reprint ed. Varanasi (India): Chaukambha Sanskrit Sansthan; 2003:59
4. Vaidya Jadavji Trikamji, (editor). Commentary NibandaSangraha of Dalhana on Susruta Samhita of Susruta,Sutrasthana. Reprint ed. Varanasi (India): Chaukambha Sanskrit Sansthan; 2003:60
5. Vaidya Jadavji Trikamji, (editor). Commentary NibandaSangraha of Dalhana on Susruta Samhita of Susruta, Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 7. Varanasi: Chaukambha Sanskrit sansthan;2012:355
6. Vaidya Jadavji Trikamji, (editor). Commentary Nibandasangraha of Dalhana on Susruta Samhita of Susruta, Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 5. Varanasi: Chaukambha Sanskrit sansthan;2012:355
7. Kaviraj Dr. Ambikadutta Shastri, (editor). Sushruta Samhita of Sushruta, Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 8. Varanasi: Chaukambha Sanskrit Series;2012:30
8. Kaviraj Dr. Ambikadutta Shastri, editor. Sushruta Samhita of Sushruta, Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 10. Varanasi: Chaukambha Sanskrit Series;2012:30
9. Vaidya Jadavji Trikamji, (editor). Commentary Nibandasangraha of Dalhana on Susruta Samhita of Susruta, Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 13. Varanasi: Chaukambha Sanskrit sansthan;2012:356
10. Prof. Jyotir Mitra, (editor). Commentary Sasilekha Sanskrit commentary of Indu on Astanga samgraha of Vrddha Vagbhata. Shaareera sthana; Angavibhaga: Chapter 5, verse 33. Varanasi: Chowkhamba Sanskrit series office;2016:303

11. Kaviraj Dr. Ambikadutta Shastri, (editor). Sushruta Samhita of Sushruta, Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 14. Varanasi: Chaukambha Sanskrit Series;2012:30

12. Kaviraj Dr. Ambikadutta Shastri, (editor). Sushruta Samhita of Sushruta, Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 16-17. Varanasi: Chaukambha Sanskrit Series;2012:31

13. Kaviraj Dr. Ambikadutta Shastri, (editor). Sushruta Samhita of Sushruta, Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 18-19. Varanasi: Chaukambha Sanskrit Series;2012:31

14. Kaviraj Dr. Ambikadutta Shastri, (editor). Sushruta Samhita of Sushruta, Shaareera sthana; Garbhavyaakarana Shaareeram: Chapter 4, Verse 21-22. Varanasi: Chaukambha Sanskrit Series;2012:31

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