



CRITICAL ANALYSIS ON THE GUNA AND KARMA OF RAKTA DHATU

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All the things mobile or non-mobile, living or nonliving are composed of five elements. These bodies are nothing but the collection of *Pancamahabhutas*. *Rakta* is also composed of five elements. *Acarya Caraka* has put forward the idea in connecting with *Pancamahabhutas* in a brief form. But *Acarya Susruta* mentioned the clear description about the *Pancamahabhuta* in *Rakta*. While narrating the *Pancabhautika* composition of *Rakta*, its *Gunas* are described. These are *Visra*, *Drava*, *Raga*, *Spandana* and *Laghu*.

Acarya Susruta mentioned the clear description about the *Pancamahabhuta* in *Rakta*. These are *Visra*, *Drava*, *Raga*, *Spandana* and *Laghu*. Natural smell is also written as *Loha Gandhi*, indicating the iron constitute that plays the major role for the smell. This is a kind of ordinary raw smell coming from the *Loha* mineral *Dhatu*. *Rakta* is in *Drava* form. It is directly observed by experiment, because we see that when bleeding takes place its form as liquid is not hidden from anybody. *Rakta* is also a *Ranjaka Dravya*. This responsibility of redness is bestowed upon shoulders of *Ranjaka Pitta*. *Spandana* indicates to motion. *Rakta Spanda* leads us to think about the motion of *Yakrt*, which is noted as every time of life. *Rakta* described in *Jeevana Karma* justifies, because life action cannot be performed without its flowing to the whole of the body and helps for the formation of new *Dhatu*. *Rakta* in general sense is heavier but its activity to do the function is due to its *Laghu Guna*. The red cells of blood float in it due to its comparative lightness. The circulation of these cells from one place to another is also done through this property.

Keywords: *Rakta*, *Dhatu*, *Guna*, *Karma*, *Samanya*, *Visesha*.

INTRODUCTION

Rakta Dhatu is the carrier of the fire that invigorates the body and mind. As such, when *Rakta Dhatu* is healthy, a person feels energized with a healthy passion for life. When *Rakta Dhatu* is in excess, heat in the body increases, the tissues of the body experience inflammation, and the mind experiences greater intensity and sharper focus. When *Rakta Dhatu* is deficient, the heat in the body decreases and the tissues of the body become cold and stiff while the mind loses its sharpness and focus¹.

The *Rakta Dhatu*, being made up primarily of the element fire, has similar qualities. It is hot, light, dry, hard, unstable, rough, flowing, clear, subtle and sharp. These qualities are very similar to *Pitta Dosha* which is

made up of mostly fire and a little water. Thus, the health of *Rakta Dhatu* plays an important role in determining the health of *Pitta Dosha*. In the formation of the *Dhatu*, *Pitta Dosha* is the mala (waste product) produced by the formation of *Rakta Dhatu*². *Rakta Dhatu* also has a special relationship to the liver. The liver is the site of origin of the *Raktavaha Srota*, which is the channel through which the unstable form of *rasa* (*Posya Rasa Dhatu*) must pass prior to the formation of *Rakta*. When the *Rakta Dhatu* is overheated, so too is the *Posya Rasa Dhatu*. As a result, the liver and spleen become overheated and possibly enlarged. This is what occurs during hepatitis³.

When *Rakta Dhatu* is depleted, the qualities of *Pitta Dosha* and fire diminish. A person feels cold, the skin loses its luster becoming pale or dusty gray, and coldness causes the body to hold on to heat by becoming constipated and by reducing urination and sweat. In the mind, depletion of the *Rakta Dhatu* leads to dullness, and difficulty processing and understanding new information. This often leads to confusion and misunderstandings. When the *Rakta Dhatu* is in excess, the qualities of *Pitta Dosha* and fire increase. A person

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feels warmer. As heat builds up in the body, the body tries to release the heat. This occurs in several ways. One way is through the skin. Vasodilatation brings blood to the surface in order to cool it off. This makes the skin appear redder. At first, the skin takes on a nice luster but if the heat continues to build, rashes develop. Vasodilatation may also be seen in the eyes which also become reddened. The body tries to release the excess heat along with the *Malas* of the body. The frequency of bowel movements increases and the stools may become loose. The frequency of urination also increases. The most noticeable sign of the body trying to reduce excess heat, however, is often experienced as an increase in sweat. If the excess heat can not be adequately removed, it will result in burning sensations within the mucous membranes and eventually inflammation and fever. As the heat spreads, any tissue or organ can be affected⁴.

It is vitiation of the *Pitta Dosha* that causes the *Rakta Dhatu* to increase. This is often a confusing concept as *Pitta Dosha*, being light, depletes the rest of the *Dhatu*s. *Pitta Dosha*, however, increases the *Rakta Dhatu* due to their similar natures. The fire of *Pitta* increases the fire of the *Rakta Dhatu*. An increase in the *Rakta Dhatu* results in feeling warmer and more intense. Lifestyle factors that increase the *Rakta Dhatu* are those that increase *Pitta Dosha* such as intellectual study, focus and exercise as well as a diet that is too hot and spicy. While *Pitta Dosha* vitiation usually increases the *Rakta Dhatu* when it goes on for too long or becomes too intense, it will eventually burn out the *Dhatu*. This results in a decrease in the *Dhatu*. The body becomes unable to hold onto the heat - feels cold and becomes easily fatigued. Most practitioners equate this with a *Vata* imbalance. However, it is the result of burn out.

When the *Rakta Dhatu* has increased, all of the activities of the body become more intense. In women, menstrual flow intensifies becoming very heavy but only for a few days. A person's mood intensifies and small things seem very important. One's sense of dharma intensifies but the imbalance leads to a state of mind in which the end justifies the means. Thus, integrity is often compromised for the sake of accomplishment. As heat builds throughout the body, there is joint and skin inflammation, redness of the eyes and even the blood vessels themselves become inflamed. Fever is possible. Many of these symptoms occur within the family of Rheumatic or Connective Tissue Disorders. These diseases result in an auto-immune response that generates inflammation. It is the *Pitta Dosha* that increases the *Rakta Dhatu* and the *Rakta Dhatu* that increases the *Pitta Dosha*. The two are inseparable. Thus, whenever *Pitta Dosha* is vitiated, the *Rakta Dhatu* must be treated and visa versa⁵.

Vata vitiation results in a decrease of the *Rakta Dhatu*. The light nature of *Vata Dosha* can reduce the red blood cells count. The cold nature of *Vata Dosha* reduces the fire-carrying capacity of the *Rakta Dhatu*. As a result of depletion, the body becomes both cold and fatigued. Activities that reduce the *Rakta Dhatu* are those that vitiate *Vata Dosha* such as irregular eating habits and skipping meals. These habits result in malabsorption and malnutrition. Vitiation of *Kapha Dosha* has an interesting effect on the *Rakta Dhatu*. Due to its heavy and gross nature, *Kapha Dosha* increases the *Rakta Dhatu*. This may result in a greater number or size of the red blood cells. However, due to the cold nature of *Kapha Dosha*, the quantity of heat carried by the *Rakta Dhatu* decreases. Thus, the patient experiences a lack of energy (sluggishness) as well as a feeling of being cold. Lifestyle factors that vitiate *Kapha Dosha* within the *Rakta Dhatu* include laziness, a lack of exercise, a disinterest in intellectual exploration and a diet that is bland⁶.

In the subtle body, the qualities of fire flow through the *Manipura Chakra* and the *Pingala Nadi* are bringing about strong and intense drives and feelings including: passion, focus, reason and logic. The state of the *Rakta Dhatu* is tied to the flow of *Prana* through these energetic channels. When *Rakta Dhatu* is healthy, these feelings and drives are well balanced within the constitutional nature of the individual. As *Rakta Dhatu* becomes depleted the flow of fiery qualities through the *Nadi* and *Chakra* decrease and there is a decrease in these feelings and drives. When *Rakta Dhatu* is in excess, these feelings and drives increase. However, as they increase beyond their constitutional balance, they become tainted by the attachments and the desires of the ego. Healing the *Rakta Dhatu* means restoring the proper quantity and quality of fire in the body and mind. The proper quantity is based upon the constitutional tendency of the individual. Those with more *Pitta* in their constitution will naturally have more *Rakta Dhatu*. This makes depletion less likely and excess more likely. Those with more of a *Vata* constitution tend to have a naturally lower amount of *Rakta Dhatu* and are most susceptible to depletion. Those with a *Kapha* constitution tend to have an adequate quantity of *Rakta Dhatu*. However, the *Dhatu* tends to be of poorer quality⁷.

The quantity and quality of *Rakta Dhatu* depends upon the intake of the fire element. Food must first be digested by the main digestive fire (*Jatharagni*). This produces *Ahara Rasa* which is then digested by *Rasagni* to produce *Rasa Dhatu* and its related tissues. A portion of the *Rasa Dhatu* is then digested by the *Raktagni* to produce *Rakta Dhatu* and its related tissues. When *Rakta Agni* is functioning properly and when it has received adequate *rasa* for transformation, the *Rakta* produced will be of an ideal quantity and of the highest

quality. When the *Raktagni* is low, a greater amount of *Rakta* is produced. However, this is of poor quality. This occurs when *Kapha* is vitiated. When *Raktagni* is too high, less *Rakta* is produced but it is supercharged in the sense that it is very hot. This is what occurs when *Pitta* is vitiated. When *Raktagni* is variable, too little *Rakta* is produced and it is of poor quality. This is what occurs when *Vata Dosha* is vitiated. Thus, the care of the *Rakta Dhatu* is dependent upon the health of *Raktagni*. Since the health of the *Rakta Agni* is partially dependent upon the health of *Jatharagni*, attention must be paid to both *Agnis* in order to restore health.

In order to evaluate the health of the *Rakta Dhatu*, the blood should be evaluated. The red blood cell count tells of the quantity of *Rakta Dhatu* that is present. Cellular morphology and the levels of hemoglobin are indicators of its quality. Of course, not all *Ayurvedic* practitioners have the ability to order blood tests or have been trained to read them. And, even if they were, blood tests alone are insufficient to tell the health of the *Rakta Dhatu* as the *Dhatu* is more than blood. Some imbalances do not show up in the blood tests but can be observed in other ways. Examination of the *Rakta Dhatu* should include an examination of the complexion of an individual, palpation of the liver for size and tenderness and observation of the sclera of the eyes for red or yellow discoloration. The tendons of the body should be palpated and the practitioner should inquire if there is a history of tendonitis. The tendons are an *Upadhatu* of the formation of the *Rakta Dhatu*. Tendonitis is one indicator of *Pitta* vitiation within the *Rakta Dhatu*. While taking the case history, the practitioner should also inquire as to whether there is a recent history of abnormal bleeding from any part of the body. When *Pitta* enters the *Rakta Dhatu*, bleeding in the body tends to increase. While many of these indicators are found in the late stages of *Rakta Dhatu* vitiation by *Pitta Dosha*, the earliest indicator is often just feeling warmer than usual or becoming more sensitive to heat⁸.

Tapaniya: It is like gold, its lustre in natural states emits reddish yellow thing but when this is heated, it produce red color with a special bright lustre which may be compared with the natural color of *Rakta*. In modern medicine also, the natural color is described as bright red color. So this redness and lustre both are responsible for making the normal color of *Rakta*. *Indragopa*: It is a kind of insect named as *Veer Vahuti*. These are seen in rainy season walking on the fields. Its color is bright dense red and very soft to touch. The pure *Rakta* is also dense red just like the color of this insect. *Padmavat*: All are familiar to this flower. It is a variety of lotus. Only red color lotus is named as *Padam*. Its color is bright red and due to this its comparison is done with *Rakta*. *Laksa*: It is an organic matter received in gum form from the plant. Its

utilization is performed in various ways. It is also used as a medicine in the disease of *Urahksata* etc. Its color is also red, but it is not bright red rather gives impure reddish tinge, and when its solution is made its blackness is clearly detected which resembles to the color of *Rakta*. *Gunja*: This is known to everybody. Besides medicine, this is also used for measurement work. There are mainly two varieties viz. red and black. Among them red color resembles to *Rakta*. Besides the above color s, *Acarya Vagbhata* gave two more colors; one of them is compared with the *Rakta* of sheep and other with the hare. In this way, we see that our *Acaryas* have given many color s in connection with normal *Rakta*⁹.

In *Rakta* normally *Madhura* and *Lavana* tastes are found. *Madhura Rasa* is judged by direct perception and logic. It is homologous to the body and increases all the body *Dhatu* and supports the sense organs. It also plays the part of providing *Tarpana*, *Jeevana* and *Preenan* to the body. It gives strength to the whole body. *Rakta* is the *Dhatu* without which the life (*Jivan*) is nothing, means it is base of the body. It is also a causative factor for all the functions of the body, so one element must be present in *Rakta* which resembles with the *Guna* of *Madhura* and showing its action as forming the part of it. *Lavana* is also one of the constituents of *Rakta*. Whenever injury takes place in the mouth by any mechanical, *Lavana Rasa* can be easily detected by the person. In loss of blood the symptoms such as *Aruci* (loss of appetite), *Agnimandya* are produced. Digestion process is also performed by the *Lavana Rasa*. These symptoms indicate the lessened quantity of *Lavana* remained in it. *Sparsa*: The normal touch of *Rakta* has been described by *Acarya Susruta*, it is moderate degree of hot and cold. The knowledge of touch by inference is perceived after touching the body, because the temperature of the body remains the same as that of blood. Moreover the body *Usma* and *Sita*, become the cause for the flow of blood. The moderate degree of temperature is the normal touch of the body¹⁰.

AIM AND OBJECTIVE

To critically analyze the concept of *Guna & Karma* of *Rakta*

MATERIAL AND METHODS

The *Bruhat Trayi* were scrutinised regarding the references for the *Guna* and *Karma* of the *Rakta*. Later, physiologico-anatomical aspects of the physiology of blood were studied from modern physiology books. Later, supportive correlation was done between *Ayurvedic* and modern views to build valid and reliable hypothesis regarding *Guna & Karma* of *Rakta*.

DISCUSSION

All the things mobile or non-mobile, living or nonliving are composed of five elements. These bodies are nothing but the collection of *Pancamahabhutas*. *Rakta* is also composed of five elements. *Acarya Caraka* has put forward the idea in connecting with *Pancamahabhutas* in a brief form. But *Acarya Susruta* mentioned the clear description about the *Pancamahabhuta* in *Rakta*. While narrating the *Pancabhautika* composition of *Rakta*, its *Gunas* are described. These are *Visra*, *Drava*, *Raga*, *Spandana* and *Laghu*.

Visra: Everything in this universe is *Pancabhautika*. The natural *Guna* of *Prithvi* is smell. So it can be concluded that the *Gandha* is the *Guna* of *Prithvi*, detected in the *Rakta*. The normal smell of *Rakta* is *Visra*. This is due to *Prithvi Mahabhuta* as just mentioned above. Modern medicine experimented for the composition of blood which is shown that blood contains are proteins, uric acid, nitrogen etc. These in combined form emits a *Visra* type of smell. *Dosas* as remaining in its *Pralpti* form, give support to the body but named as *Dosa* due to their absolute name, among these *Dosas Pitta* possess its natural *Visra* smell. Commenting on it, *Acarya Cakrapani* designated it is as *Amra* smell. In fact this smell is produced due to above written constituents present in it. Its natural smell is also written as *Loha Gandhi*, indicating the iron constitute that plays the major role for the smell. This is a kind of ordinary raw smell coming from the *Loha* mineral *Dhatu*. *Dravata*: *Rakta* is in *Drava* form. It is directly observed by experiment, because we see that when bleeding takes place its form as liquid is not hidden from any body. A little doubt may be raised here by some persons that in *Ayurvedic* Text reference about *Rasa* circulation is found instead of *Rakta*. Here, they took *Rasa* as plasma of the blood. This may be true, but to some extent only because *Rakta* is also to be liquid. So if we consider the modern blood as *Ayurvedic Rakta* and then perhaps no objection will be raised. *Raga*: *Raga* means *Ranjana*. *Rakta* is also a *Ranjaka Dravya*. This responsibility of redness is bestowed upon shoulders of *Ranjaka Pitta*. *Spandana*: *Spandana* indicates to motion. *Rakta Spanda* leads us to think about the motion of *Yakrt*, which is noted as every time of life. *Rakta* described in *Jeevana Karma* justifies, because life action can not be performed without its flowing to the whole of the body and helps for the formation of new *Dhatu*. In this way, it become a keeping agent for the touch perception. Its description is done among the *Karma* of *Rakta*. *Rakta Spandana* and its fluidity functions are done in their *Siras* named as *Raktavaha Sira*. *Laghuta*: *Rakta* in general sense is heavier but its activity to do the function is due to its *Laghu Guna*. The red cells of blood float in it due to its comparative lightness. The

circulation of these cells from one placetoanother is also done through this property. When these cells will be rendered heavier than due to their attaining this property. They stick inside the wall of either vessels, there they go on accumulating and obstruction will be the resultant form. Thus the circulation will be checked and the disease will be produced. But in normal state this does not happen, clearly signifying the property of *Laghuta*. In this way one may observe that in the older days also, the examining methods were duly and properly performed. Their base of examining was totally depending upon *Mahabhutas*, because these five elements are considered to be the cause of all the things in this universe. Today also, it is considered as truth, though the way of adopting is changed¹¹.

Rakta is the site of *Pitta*. *Pitta* are five in number, from these five *Pittas*, *Ranjaka Pitta* plays the part of providing pigmentation to *Rakta*. So the *Rakta* gives colour due to its formation from *Ranjaka Pitta*, because *Pitta* gives colour to the body. According to modern view, the pigmented layer of epidermis of the skin is responsible for providing colour to the body. When the skin is exposed with sun rays, the colour of the skin is darkened. Similarly the hemoglobin is also responsible for imparting colour to the body. The hemoglobin saturated with oxygen i.e. oxyhemoglobin gives redness to the body, while the carboxy hemoglobin gives bluish tinge to the skin and mucus membrane. From this it is inferred that it is responsible for colouring the body¹². It carries the life giving factor can easily be shown while considering the importance of *Rakta* in the brain. Being the seat of action, the mind controls all the activities of the body and adjusts it with external environment. The nerves emerging and entering the brain and spinal cord conveys the impulses, just as the rays of sun are being supported by sun similarly, the sense of perception and channels of sense of life are also being supported by brain. The *Rakta* which carry oxygen is only responsible for giving *Cetana* to that part. If the oxygen is not supplied even for a single moment, the cells of the brain begin to paralyze. So here it is a fact that necessity of *Prana Vayu* for our body especially to the brain. Seeing this fact *Acarya Caraka* has mentioned that the symptoms of Buddha *Rakta* that it invests the person with strength, complexion, happiness and long life verily, life is upheld by *Rakta*. He again wrote that a person who has a clear complexion, senses, desires, sense pleasures has strength of digestive unimpaired, well built and strong, has been said to be having *Suddha* (pure) *Rakta*¹³.

Mamsa is produced by *Rakta*, clearly mentioned in *Caraka* and in other *Ayurvedic* classics. While commenting on this idea *Cakrapanidatta* put forward the different concept (which has been discussed earlier in the concept of *Rakta* formation. The common

concept granted by the majority, is that *Rakta* is first acted upon by *Raktagni* and from this *Suksma Mamsa* is formed which receives its essential nutritional substances from *Rasa*. Thus formed *Mamsa* plays the important role of providing *Lepana* to the body. According to the modern view, fibril is first formed, those million fibrils unite to form the fiber. Thus formed fiber are again united in thousands of numbers and gives production to the muscles. These fibrils and fibers are connected with each other by connective tissues. The plasma and hemoglobin are primarily concerned for the formation of the body organs. These two main constituents correspond to *Rasa* and *Rakta* of Ayurvedic view.

Rasa is the primary *Dhatu* of the body. The nutrition and malnutrition of all other *Dhatu*s depend upon *Rasa*, because the theory of "stage wise *Dhatu* formation" indicates that *Rasa* contains the nutritive substances needed by all other body *Dhatu*s. But *Rakta* is considered to be responsible for the growth of *Dhatu*s in proper proportion. Thus, it is derived that *Rakta* has its own importance which is not at all dependant on *Rasa*. Perhaps this is the reason that, *Acarya Susruta* the best surgeon of his time, advised for the special care of *Rakta*. He mentioned that *Rakta* is the origin of the body, maintains its vitality and life and should be preserved with the greatest care, its special property that it gives *Prana* to the body seemed to be holding its whole importance. *Acarya Charaka* has mentioned that *Rakta* is site of *Prana* among the ten *Pranayatanas*. Because when *Prana Vayu* will not be conveyed to the tissues, they will become unable to respire, with the result of instantaneous death. Though, *Rasa* is playing its function to give nutrition to them. Here, the modern and *Ayurvedic* concept exactly coincide with each other¹⁴

CONCLUSION

Acarya Susruta mentioned the clear description about the *Pancamahabhuta* in *Rakta*. These are *Visra*, *Drava*, *Raga*, *Spandana* and *Laghu*. Natural smell is also written as *Loha Gandhi*, indicating the iron constitute that plays the major role for the smell. This is a kind of ordinary raw smell coming from the *Loha* mineral *Dhatu*. *Rakta* is in *Drava* form. It is directly observed by experiment, because we see that when bleeding takes place its form as liquid is not hidden from any body. *Rakta* is also a *Ranjaka Dravya*. This responsibility of redness is bestowed upon shoulders of *Ranjaka Pitta*. *Spandana* indicates to motion. *Rakta Spanda* leads us to think about the motion of *Yakrt*, which is noted as every time of life. *Rakta* described in *Jeevana Karma* justifies, because life action can not be performed without its flowing to the whole of the body and helps for the formation of new *Dhatu*. *Rakta* in general sense is heavier but its activity to do the function is due to its *LaghuGuna*. The red cells of blood float in it due to its

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