

A LITERARY REVIEW: RAJA (UPADHATU OF RASA)**¹Dr. Swati Vedpathak, ²Dr. Sunil G. Topre and ³Dr. Ravindra Bhurke**¹PG Scholar, Department of Kriya Sharir, R.A. Podar Medical College, Worli, Mumbai.²HOD, Department of Kriya Sharir, R.A. Podar Medical College, Worli, Mumbai.³Associate Professor, Department of Kriya Sharir, R.A. Podar Medical College, Worli, Mumbai.***Corresponding Author: Dr. Swati Vedpathak**

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ABSTRACT

Ayurveda has an aspect of prevention & curative as well & also based on keen observations. Ayurveda gives priority to maintain the healthy state of a normal human being and treat the disease of patient. Success of any science depends on its fundamental principles. Human being has emerged as a very specialized species in the process of evolution. For the existence of body, two elementary factors are there, one that form structural configuration and second which control physiological aspects. Ayurveda has explained the physiological functions of human body under three elements viz. Dosha, Dhātu and Mala. Updhatus are important physiological units and are derived from Dhatus and resemble Dhatus in terms of structure, function and nature. Updhatus are sub tissues or secondary tissues in the body which serve as important components and have certain fixed functions to render. Dhatus are closely associated with the Updhatus. Updhatus are derived from the first four Dhatus. Updhatus are finest product of Dhātu metabolism. Dhātavagni plays major role in metabolism of Dhatus and Updhatus. Updhātu is subsidiary tissue arises from Dhatus. They are important physiological units and engaged to design the structural composition of the body. Dhātu form the basic structure of the body, they are not able to execute the functions of body without the support of Upadhatus. Upadhātu acts as a bridge between these fundamental entities. Upadhatus are also involved in emergence of diseases and the knowledge is necessary to understand the pathological conditions. Stanya (breast milk) and aartava (menstrual flow) being the Updhatus of Rasa Dhātu; their quality, quantity excellence depends on metabolic and functional status of Rasa Dhātu.

KEYWORDS: Upadhātu, stanya, Raja.**INTRODUCTION**

Dosha, dhātu & mala are main physiological factors of the body just like roots of tree are very important for maintenance, stability and growth of a tree. There are seven Dhātu which is derived from Ahara Rasa that is Rasa, Rakta, Mamsa, Meda, Asthi, Majja and Shukra. Dhatus and organs get developed in the embryological stage and after birth these Dhatus gradually grow.

Vyutpatti The word 'Upadhātu' consists of two parts with Prefix "Upa" and the word "Dhātu". The literary meaning of "Upa" is towards, near to, by the side of, resemblance, nearness, with the idea of subordination and inferiority. The word 'Dhātu' is derived from the root "Dha" which means to support and nourish. Everything existing is supported by this or because they bear and support, they are termed as Dhātu. Which supports the growth of the body is termed as Dhātu. Dhatus are stable constituents, the basic elements of the body, which make the body exist. Nirukti Shows close resemblance towards Dhātu. Those, which are derivatives of Dhatus, produced at complementary, subsidiary level, are known as Upadhatus. Definition Elements of the body which are

derived from Dhatus and which are not further subjected to any transformation are called Upadhatus.

For growth and development Dhātu needs nourishment. These Dhatus are nourished by Ahara Rasa. Formation of New Dhātu Ahara Repair Damaged Dhātu Every elements in this universe is composed of Panchmahabhūta i.e., Akash, Vaayu, Agni, Jala, Prithvi.

Ahara is the main factor for formation of Rasa. Ahara is also made of Panchmahabhūta, having six tastes (Madhur, Amla, Lavana, Katu, Tikta and Kashaya) possess many properties when indigested undergoes digestion. After being digested properly, Ahara with the help of Kosthagni present in stomach (Gastric juice Hydrochloric acid) and small intestine arises its vital essence known as Ahara Rasa. They are nourished from Sara portion produced in digestion of nutrient fluid in Dhātuvahasrotas. It means they are produced directly from Ahararasa. It is needed for Ahararasa to undergo more digestion for giving rise to Dhātu as well as Updhātu. All the seven Dhatus of the body contains their own fire (Agni) in order to metabolize the nutrients

(micro as well as macro) supplied through Srotas (channels of circulation). Substances that are present in the body which only perform Dharana Karma are Updhatu.

Meaning of Up is Sub, sub ordinate, subsidiary, secondary and Dhatu means tissue. Updhatu is subsidiary tissue which provides base to the body but they do not nurture it like Dhatu. Updhatu helps to sustain body. The main difference between Dhatu and Updhatu is that any changes or vitiation in Dhatu results in the effect in Uttar Dhatu but this can't happen in case of Updhatu. Each of seven Dhatu nourishes and supports Updhatu which is subsidiary tissue or secondary tissue product and produce Malas (waste products). The Updhatu neither nourish each other nor any other tissue for the matter. In Ayurveda classics formation of Aartava (Menstrual blood) is from Rasa Dhatu and the Rakta named Raja is formed which get accumulated in uterus and comes out for three days every month.

All Anulomana activities of reproductive system are under Ayurved is a healing science based on the studies and keen observations. Ayurved gives priority to maintain the healthy state of a normal human being and treat the disease of patient. Success of any science depends on its fundamental principles. Human being has emerged as a very specialized species in the process of evolution. For the existence of body, two elementary factors are there, one that form structural configuration and second which control physiological aspects.

Ayurveda has explained the physiological functions of human body under three elements viz. Dosha, Dhatu and Mala. Updhatus are important physiological units and are derived from Dhatus and resemble Dhatus in terms of structure, function and nature. Updhatus are sub tissues or secondary tissues in the body which serve as important components and have certain fixed functions to render. Dhatus are closely associated with the Updhatus. Updhatus are derived from the first four Dhatus. Updhatus are finest product of Dhatu metabolism. Dhatavagni plays major role in metabolism of Dhatus and Updhatus.

Updhatu is subsidiary tissue arises from Dhatus. They are important physiological units and engaged to design the structural composition of the body. Dhatu form the basic structure of the body, they are not able to execute the functions of body without the support of Updhatus. Updhatu act as a bridge between these fundamental entities. Updhatus are also involved in emergence of diseases and the knowledge is necessary to understand the pathological conditions. Stanya (breast milk) and aartava (menstrual flow) being the Updhatus of Rasa Dhatu; their quality, quantity excellence depends on metabolic and functional status of Rasa Dhatu.

The control of ApanaVata including monthly cyclic flow of Aartava. Duration of the bleeding time (Raja Strava Kala) is three, five and seven days by different Acharyas.

Process of metabolism

Formation of Upadhatu Dhatu metabolism is a nourished pool of all the body constituents. Through this pool all elements including upadhatus get their nourishment. Upadhatus are sustained being fed by their nourishing factor. Food after digestion takes two forms viz. the Prasada part (essence) and the Kitta part. Depending upon their nourishment from Prasadaja or the Kitta, the tissue elements of the body are described of two types, the pure one "Prasadakhya" and waste product "Malakya". From Prasadaja portion all the Dhatus are formed in progressive order. Upadhatu are also nourished from this Prasadaja part. Ahara Rasa when goes to the abode of one Dhatu after the action of that particular Srotasagni it is transformed into two parts Prasadaja and Kitta. Prasadaja portion is further divided into two parts. The main portion of it provides nourishment to that Dhatu and the subtle portion (Sukhma Bhaga) is meant to provide nourishment to two elements, by its further division. The major portion of it goes to the site of next Dhatu and the subtle of it provides nourishment to the Upadhatu. Third waste portion nourishes the Mala of the respective Dhatu. In this way from the Prasadaja part of Ahara Rasa Upadhatus derive their nourishment in progressive order. When Ahara Rasa comes to the abodes of Rasa Dhatu, by the action of Rasadhatvagni it get transformed into two parts, the Prasadaja portion and the Mala portion. The Prasadaja part again gets divided into two parts. Sthula Bhaga and Sukhma Bhaga. Sthula portion of it supplies nourishment to the Rasa Dhatu and Sukhma portion of it again divided into parts. The major portion of it goes to the abodes of Rakta Dhatu and subtle part provides nourishment to Stanya and Raja. In the same manner the subsequent Upadhatus are derived from their respective Dhatus. The process of Dhatu metabolism goes on continuously like the passage of time (Kalavat Anavasthitatva). If all the Dhatvagnis, Vayu and Srotases are unimpeded they play a pivot role in continuation of Dhatu metabolism. These components are closely related with Upadhatus too.

Rasa Upadhatu Aartava (Raja)

Aartava (raja) Raja is present only in females. This is derived by means of specific function attributed to female physiology that is reproduction. This is called as Upadhatus because they derive their nourishment from Prasadaja portion of Dhatus. This is present in liquid state. Raja is the menstrual blood. Menstruation is intimately correlated with the normal functional states of the female and it is an index of her well being. As in developing and aged plants flower and fruits do not come up, as in bud and decaying flowers or fruits the fragrance is not explicit, similarly in females Raja (menstrual blood). The Raja or aartava is produced from the Rasa only in women and is manifested for 3 days once every

month. Raja is produced after 12 years of age and ceases to appear (menopause after 50 years). Rasa gets matured and processed over a period of one month and at the end of the month, the rasa gets converted into shukra (semen) in men and artava (menstrual blood, ovum) in women. Rasa majorly nourishes Rakta dhatu and in quick time too, whereas the same rasa nourishes the raja or aartava in small proportions and in slow time. Therefore it takes one long month for the aartava to get properly nurtured and get manifested during monthly periods, while rakta dhatu is regularly produced. Raja & Panchamahabhuta The principles of Panchamahabhuta are also present in male and female reproductive elements in their subtle forms and contribute to the formation of the material parts by their molecular adjustment in the way of supplying nutrition, adding to their bulk. In female, raja the purest part of rasa-dhatu plays a very important role along with artava. However, this relationship of raja and artava is not mentioned properly anywhere in Ayurvedic Samhitas. Being the purest part of rasa dhatu, it contains all the nutrients, which assists the growth of embryo by the osmo-regulation method. The following characteristics of Aap mahabhuta as stated in Ayurveda are also found in raja.

1. **Rasa:-** With the help of rasa, the effect of the dravyas can be left to a certain extent, e.g., drugs having sweet taste lead to the growth of all tissues and increase the functional capacity. Since raja helps the growth and development of fetus, it is having the sweet taste.
2. **Sarvadravasamuha:-** Basically it exists in liquid state, that is, water balance in the body, moisture, all types of secretions, hormones etc. In the same way raja is also found in liquid state.
3. **Guruta:-** Every liquid substance has its own weight. Similarly, raja must have its own weight.
4. **Shaitya:-** Like Aap mahabhuta, shaitya is also one of the major features of raja as proved above.
5. **Sneh:-** Property of rasa-dhatu is mentioned as Snigdha. Raja being its upadhatu its property may also be regarded as Snigdha.
6. **Ret:-** In general this 'Ret' means semen or Shukra dhatu in male. It is not considered in female. But as raja is considered as stree shukra it gets discharged from the body in rajakala with this discussion we conclude that though rajah is composed of the Panchamahabhuta, the property of Aap mahabhuta is found more in it. So, it can be argued that the property of raja is Soumya and it should be regarded as Stree-shukra.

Here we have to keep in mind that the body temperature of a woman is increased at the time of ovulation (Agneyam Aratvam) but at this juncture, raja retains its sheeta guna which is composed of Panchamahabhuta with the dominance of Aap mahabhuta. Raja and Tridoshas Menstrual flow occurs by every 28 to 30 days. But woman normally experiences regular uterine bleeding coming out every 28 days, except during

pregnancy and sometimes during lactation. This cyclical uterine bleeding is called rajodarshan. While the period from the beginning of one menstruation to that of the next is called the menstrual cycle. From the onset of menstruation, the first period of 3 to 5 days is called Rajodarshan or Rajapravrutti. It is also called as Rajakal. After rajakal, the period of 12 to 16 days is called Rutukal and thereafter the period up to menstruations is known as Rutuvyatitakal. In this way the cycle completes within 28 days. Rutukala and Tridosha After menstrual flow, the uterus becomes clean to form a new raja. In modern science this stage is known as proliferative stage. Here in this stage, Kapha dosha does the work of accumulation in the body. Therefore, it is responsible for the creation of new raja. During this period, Kapha dosha remains very active in its function. So, it should be considered as 'Kaphaprakop Kala' whereas at this stage Vata dosha remains passive, after having performed its function in rajakal. The pitta dosha is in the accumulative state, as it has to perform its function during the rajovyatit kala. If fertilization occurs during this period the pitta-dosha helps the fertilized ovum to grow. If the process of fertilization does not occur, pitta-dosha goes on increasing and at its extreme stage with its ushna guna liquefies the layers of raja and consequently raja is thrown out along with blood. Ovulation takes place in this rutukala. The period of forming the ovulation is the same as mentioned in the modern science, that is, 14 ± 2 . With this discussion, we can conclude that kapha is in its dominant position, pitta is in its accumulative stage and the vata is in passive stage during the rutukala. Rutuvyatitakala and Tridosha Rutuvyatitakala commences soon after the rutukala is over. During this stage pitta becomes dominant whereas Kapha is found in its passive stage, as it has no function to perform. Pitta becomes forceful to help the growth of the fertilized ovum if at all fertilization takes place. If it does not, it destroys the layers formed by kapha dosha with the help of ushna, sara and drava guna. Vata is in its growing stage because it has to perform its function in rajakala. Therefore, we can say that pitta is in active stage, vata is in growing state, and kapha is in passive state. Rajakala and Tridosha As raja has nothing to do, it is converted into waste product and that is why vata has to be very active to throw out the waste product. But it is noticed that pitta becomes inactive whereas kapha goes on growing. In Ayurveda the whole process is described as tridoshas. Raja and Tridosha's Niyatakal In Ayurveda, Niyatakal is one of the concepts. Age, day, night, and diet periods have their own basic divisions such as Adhya, Madhya, and Antya. Kapha, pitta and vata are very dominant in their above respective periods. As we have seen, menstrual cycle also has its own divisions, namely, rutukala, rutuvyatita-kala and rajakala. It is taken for granted that rutukala signifies the Adhya (beginning) in which kapha is dominant. The rutuvyatita kala is known as Madhya (middle), where pitta is active, whereas the rajakala is Antya (end) where vata seems to be forceful.

As mentioned earlier, in rutukala there is a formation of new raja because of the dominance of Kapha guna. If a woman having Kapha prakruti takes food intake containing the excessive ingredients of kapha guna, the rutukala is deferred. It is observed that there is a close connection between rutukala and excessive kapha. During rutukala the production of ovum takes place. It is followed by the inception of the rutuvyatit kala. During this period temperature of female body increases to some extent. Hence this period should be regarded as pitta dominated period. If kapha in rutukala, pitta in rutuvyatita kala and vata in rajakala continue to grow excessively, the basic principle regarding niyat kala gets distorted, consequently raja is vitiated. Therefore, the doshas have to be made inactive in later states, which help to maintain the balance of doshas. In this regard Chakrapani pertinently remarks that the doshas grow sometimes excessively as per physical needs. Their growth should not be regarded as a diseased state. This process is in keeping with the natural law. Here the term 'excessive' growth should be taken in a limited sense.

DISCUSSIONS

Though by name they are sub-tissues or secondary tissues, the upadhatus render very important functions in the body. Without upadhatus many important functions could not be imagined. Stanya is helpful in lactation, aartava in regular cleansing and maintenance of health in woman and also in reproduction, siras help in circulation, kandaras and snayus help in supporting the body and holding the body tissues together, vasa helps in lubrication and twak in enveloping the body, protection and beautification and sandhis help in our movements and locomotion. Imbalances in upadhatus in the form of pathological increase (vriddhi) and or decrease (kshaya) will lead to many diseases and deformities. Therefore it is important to know in detail about upadhatus, their location, types, number and functions. Updhatus are the byproducts of the Dhatu metabolism but they cannot be considered as the Malas because Updhatus are nourished by the prasadj part of the Dhatu. Raja and Stanya is Streevishishta Updhatu. Raja is a sub-stance of the body which flows out at a specific time or period that is monthly menstrual flow. The "Raja" is the secretion from the genital tract of female body throughout their reproductive life. Normal and proper Rajapravritti is one of the indications of Swasthavastha. It is one of the most essential factors for the healthy progeny. In high tech era, Woman have successfully taken leap from kitchen to the corporate world, but at the same time added their health risk due to that they forget all about reproductive cycle or biological clock, changing life style, eating habit, over mental and physical stress, Improper sleep ultimately all these disturbs body physiology influence proper nourishment of the body, causing wide range of medical ailments especially regarding female reproductive health. Among them menstrual disorder is very common problem.

CONCLUSIONS

Ayurveda has aimed to maintain health of healthy individuals and to cure diseased person. The basic elements of the body Dosha, Dhatu, Mala, maintain homogeneous state (Samya), of our body that is important for Arogya. Among these Dhatus is nothing but the pillars of the body on which whole body grown up above. Updhatu is derivative of Dhatu. The Dhatu nourishes the Updhatu, if Dhatu is in excellent state then its Updhatu production and nourishment will also be in excellent state. Raja (menstrual flow) being the Updhatus of Rasa Dhatu; its quality, quantity excellence depends on metabolic and functional status of Rasa Dhatu. Upadhatus are important components (structures) of our body serving important functions. The description of upadhatus by Ayurveda teachers of ancient time explains the dexterity, analytical vision and the perfection with which the anatomy was understood, taught and documented in spite of having lesser amenities for doing it. The different Acharayas at different periods of time enlightened the concept of Updhatu in their own ways. Upadhatus do not nourish any successive. Updhatus are basically nourished from the Sukshma Prasadaj part of the Dhatu, which also nourishes the subsequent Dhatu. Dhatvaagni and Strotas play an important role in the nourishment of Dhatu and updhatus. Each updhatu has its own dhatwaagni. Normal and proper nourishment of Updhatu depends on their Status of their respective Dhatu. Raja is functional entities restricted to Stree Sharira. Proper Rajapravritti is one of the essential factors for female reproductive health.