

Importance of Nyayas on Body's Well-Being – A Conceptual Study

Amardeep Kour^{1*}, Gupta Vikas² and Sodhi Danisha³

^{1,2,3}PG Department of Kriya Sharir; Jammu Institute of Ayurveda and Research, Jammu, Jammu and Kashmir, India

Abstract

The human body is constituted by the requisite combination of seven *dhatu*s and the degeneration and decay of these *dhatu*s affect the body's natural phenomenon. To maintain the *Swastha* state, particularly the *samdhatu* state arresting the degeneration and decay, intake of nutritious food is essential. The food has to be properly digested, assimilated and then the nutrients have to be incorporated into the *dhatu*s to achieve the *Samdhatu* state. For incorporation of the nutrients into the *dhatu*s and to achieve *Samdhatu* state, important for body's well-being the *Nyayas* i.e., *Ksheera Dadhi Nyaya*, *Kedari Kulya Nyaya*, *Khalekapota Nyaya*, *Ekkala Dhatuposhana Nyaya* has been explained with due importance. Thus through this research paper a light has been thrown on the importance of *Nyayas* on body's well-being.

Keywords

Nyayas, *Dhatu*s, *Samdhatu*, *Nutrition*



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INTRODUCTION

In ayurveda, three *upstambhas* have been mentioned which are *Ahara*, *Nidra* and *Brahmacharya*. *Ahara* is having utmost importance in the maintenance of *Swastha* state. Whatever type of *Ahara* one consumes will affect the body in one or the other way. Acharya Charak states that “The human body is a product of food, even so disease arise on account of unwholesome food. The difference between ease and disease is correlated to wholesome and unwholesome diet¹. The *Kaya* i.e., body gets nourished as well as developed by the ‘*Anna*’. Food material is required by the body for heat and energy, for tissue growth and for the compensation of the decay of the tissues. The ingested food has to be properly digested, assimilated and nutrients have to be incorporated into the *Dhatu*s to achieve the *Samdhatu* and *Swastha* state. For the digestion, *Doshas* act upon the food. After the action of all these the absorption and the transfer of nutrients to the equivalent *Dhatu*s is required. In digestive procedures performed under the influence of *Jathragni* throughout the *Kostha*, the *Bhutagni* rearrange their respective particles (the *Panchbhoutika* composition and the molecular arrangement) so that they can be

assimilated in the human body before they get absorbed in the *Pakwsaya*. The form of food ready for assimilation is termed as *AharaRasa*. It is the precursor of and concealed in the *Rasa Dhatu*. Consequently formed *Rasa* is carried to *Hridaya* and from *Hridaya* it is circulated all over the body to reach minute channels which supply nutrition to all the *Dhatu*s spread all over the body. This is influenced by *Vyana Vata*. The *Ahara Rasa* dissolved in *Rasa Dhatu* is in such a *Panchbhoutika* form that any particular *dhatu* can select its nutrition from it. There are three *nyayas* about the modes of *Dhatuposhana*

1. Ksheeradadhi nyaya
2. Kedarikulya nyaya
3. Khalekapota nyaya
4. Ekkala dhatu poshana paksha

AIMS AND OBJECTIVES

1. To study the various *Nyayas* in context of nourishment of *Dhatu*s.
2. To understand the importance of utility of *Nyayas* in body's well being.

MATERIALS AND METHODS

1. Only textual material and relevant references have been used for this study.
2. Related websites have also been searched.

CONCEPT OF NYAYAS

1)KSHEERADADHI NYAYA

(The Law of Transformation):-

According to this concept, the preceding *Dhatus* get transformed into the succeeding *Dhatus*, this is on the analogy of transformation of milk into curd. Thus the whole *Rasa Dhatu* being cooked by the respective *Agnis* becomes *Rakta*, similarly the *Rakta Dhatu* changes to *Mamsa Dhatu* and *Mamsa Dhatu* changes to *Medho Dhatu* and likewise and termed as *Ksheeradadhi Nyaya*^{2,3}. It can also be understood by this eg. as after the union of *Sukra* and *Sonita*, when the foetus is developing as a mixture of seven *Dhatus*, the *Rasa Dhatu* derived from mother is transformed into *Rakta* by the *Rasadhatwagnipaka*. Through this method of *Dhatuparinama*, the foetus develops gradually. From the third month onwards, the foetus is nourished through the *Nadi* which connects the umbilicus of the foetus to the heart of the mother. After the establishment of *Nadi*, the nourishment of the foetus (the *dhatu*s of the body) is conducted by *Kedarikulya Nyaya*⁴. Even after the delivery, the nourishment of body is by the law of transformation. The *Dhatwagnipaka* comprises of both

Prasadapaka and *Kittapaka*. In this *Nyaya* also, *Prasadapaka* produces the nourishing part of the *Swadhatu* and the *Poshaka bhaga* of the succeeding *Dhatu*. And the *Malarupa Kapha* and *Pittas*, which are excreted into *Koshtha* form the muconium of the infant which is excreted after delivery.

2)KEDARIKULYA NYAYA

(The Law Of Transmission)

According to this theory, the process of nourishment of tissues can be compared to the irrigation of different fields by water from a canal. The water first irrigates the nearby fields and only thereafter the distant ones are irrigated. Thus, the *Rasa* after supplying nutrition to *Rakta* then, *Rakta* proceeds to provide nourishment to *Mamsa Dhatu*. In this way, the nourishment is taken to all the *Dhatus* by *Ahararasa* due to this order each *Dhatu* can pick up its own nutrients. According to this concept one *Dhatu* alone can get affected without involving other tissues^{5,6}. Here in this context few points have to be noticed that the *Sthayi Dhatus* have already been developed and the nourishment of the *Dhatus* is through the *Ahararasa*. The nourishment is through the specific *Dhatuvaha Srotases* and there is a force acting to transport the *Ahararasa* to the

respective sites of the *Dhatu*s through the *Srotases*. The stimulation of the muscular *Hridaya* for its contraction and relaxation by the *VyanaVata* is required for the circulation of *Ahararasa* in the body⁷. It is clear that *Ahararasa* nourishes first the *Sthayi Rasa Dhatu* and the *Raktadi Dhatu*s later gradually but not in the case of *Vajeekar Dravyas*. Since the *Vajeekar Dravyas* contain mainly of nutrients that nourish the *Sukradhatu* and this *Dhatu* is spread all over the body, there is instant nourishment of *Sukradhatu*.

3)KHALEKAPOTA NYAYA

(The Law of Selectivity):-

According to this concept, the nourishment of *Dhatu*s takes place by selection. The nourishing fluid travels through different channels. Different *dhatu*s get nourished by this nourishing fluid at different stages. Thus, the nourishment of tissues takes place through different channels. This is on the analogy of the pigeons carrying grains from a thrashing field and flying out in different directions.

According to this *Nyaya* the *Ahararasa* goes to various *Dhatu*s through different channels, *Dhatumargas* and *Srotases* and provide them with nutrition. The portion of *Ahararasa* meant to provide nourishment to

a particular *Dhatu* does not come in contact with other *Dhatu*s. The portion of *Ahararasa* meant to nourish *Rasa Dhatu* passes through its own *Srotas* and provides nutrition to it. After providing nutrition to *Rasa*, the portion of *Ahararasa* meant to provide nutrition to *Rakta Dhatu* does its job through its specific *Srotases* and the process goes on till the last *Dhatu* gets nourished.⁸

Thus, in the view of *Khalekapota Nyaya* it is clear that the nutrient substances required by each one of *Sthayi Dhatu*s are also specific to each one of them. The nutrients meant for one *Dhatu* may not be utilised by another *Dhatu*.

4)EKKALADHATUPOSHAN

PAKSHA:

This method is proposed by *arundatta*. Ejected into circulation by *vyanaavata*, *ahararasa* enters the seven *dhatuvaha srotases* and nourishes the seven *dhatu*s. The site of *rasa dhatu* is *hridaya*, but it circulates throughout the body. Eventhough separate sites have been stated for the seven *dhatu*s, they are present throughout the body. Therefore the *ahararasa*, which circulates quickly in the body is stated to nourish all *dhatu*s at the same time. This method of utilisation of the nutrients derived

from the food indicates only nourishment of *sthayi dhatus*. According to *acharya charaka*, the nutrient homology of *dhatus* is circulating in the body continuously like a rotating wheel. In the event of the strength of the *agnis* is good, the *dhatuposhana* is conducted faster, if they are in decreased state, the *dhatuposhana* is slow. According to *acharya sushruta*, *rasa* develops from the diet in one day. The circulating fluid i.e. the *rasa dhatu* transporting the nutrients stays in each one of the remaining six *dhatus* for a period of 3015 *kalas*. Therefore it takes for the *rasa* one month to be formed into *shukra* in the case of men and *artava* in women. The total time taken for the conversion of *rasa* into the *seven dhatus* is 18090 *kalas*. According to above *rasa* stays in each *dhatu* for 5 days and *dhatuposhana* completes in a month that is till the *shukra* is nourished. According to *parashar* it takes two days for the development of *rasa* after the *ahararasa* is absorbed and for the completion of *dhatuparinama* and development of *shukra* it requires 8 days. This knowledge of the time factor about the *dhatuparinama* is useful in the diagnosis of a disease.

A CONSENSUS ON THE NYAYAS:-

In *Dhatuparinama*, the *Sara* portion of *Ahararasa* is converted into *Poshaka Rasadhatu*, which by the influence of *Rasadhatwagni*, is converted into *Sthayi Rasadhatu*. The major share of the remaining minute fraction is converted into *Rakta Dhatu* by the action of *Raktadhatwagni*. *Updhatus* and *Malas* are formed here as by products. And the process goes on upto *Shukradhatu*. All these processes are taking place in the medium of *Rasadhatu*, as explained by *Kedarikulya Nyaya*.⁹ The nutrition to each *Dhatu* is specific as explained by *Khalekapota Nyaya* and the conversion of *Poshakadhatu* as corresponding *Sthayi Dhatu*, *Updhatus*, *Malas* and as *Upadana Dravya* for the succeeding *Dhatus* can be explained on the basis of *Ksheeradadhi Nyaya*.

Each *dhatu* is having a *Poshaka* fraction and a *Poshya* fraction. In the case of *Medas* these relations are direct and very clear, while adipose tissue can be considered as *Poshya Medodhatu*; chylomicrons, lipoproteins etc. comes under the *Poshaka* variety. Still a *Dhatu* can take its relevant portions from the *Upadanarasa* obtained from the preceding *Dhatu*, following *Kedarikulya Nyaya* it can be directly take

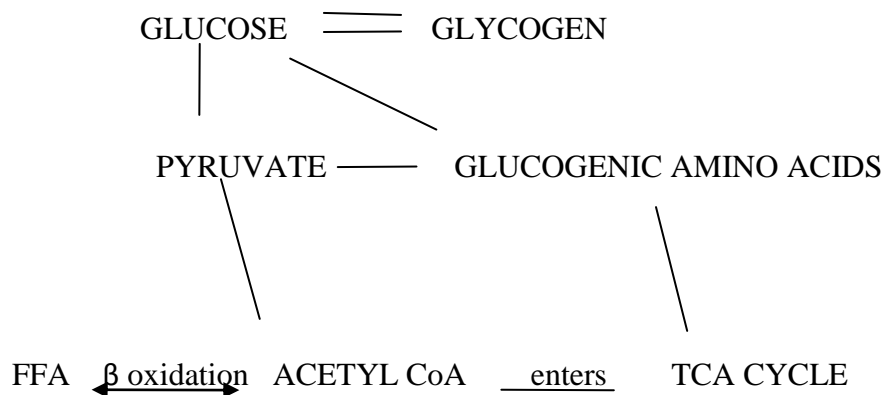
its portion from *Ahararasa*, following *Khalekapota nyaya*.

A MODERN CONCEPT OVER THE USAGE OF NYAYA:-

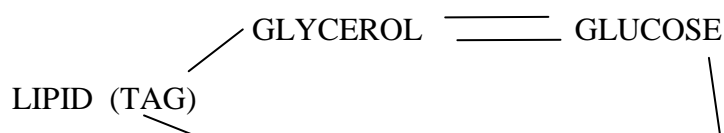
There is a single concept in modern medicine equivalent to the *ayurvedic* concept of nutrition pathways. Still it can be compared with various metabolic reactions taking place in our body. The anabolic (building up) and catabolic (breaking down) pathways can have some resemblance with the *Ayurvedic* concepts of *Prasadapaka* and

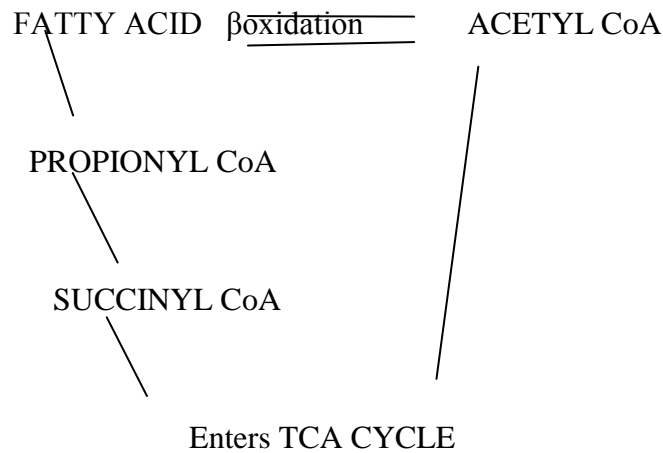
Kittapaka respectively. The forethought of our Acharyas seems evident in giving *Dhatuposhana* (building up) as well as *Malaroopa* (braking down) attributes to the *Doshas*, parallel to the concept of anabolic and catabolic changes in modern medicine. The main metabolic reactions taking place in body are those of carbohydrates, proteins and lipids; which are very much interrelated also. And these metabolic reactions helps to maintain the body's well being. These three types of metabolic processes can be represented in short as follows.

CARBOHYDRATE METABOLISM

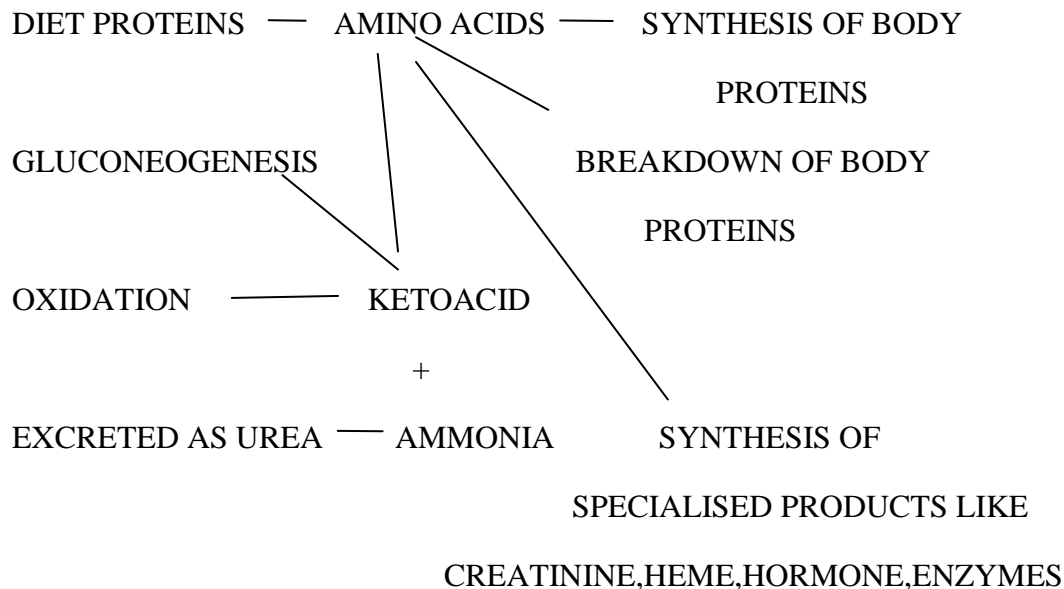


LIPID METABOLISM





PROTEIN METABOLISM



Thus the action of different *dhatwagnis* at various levels of *dhatuparinama* process can be correlated to an extent with the modern concepts as follows.

Rasa Dhatwagni- glucose metabolism, circulation in portal vein, formation of WBC

Rakta dhatwagni- hemopoiesis, iron metabolism, protein metabolism

Mamsa dhatwagni- protein metabolism

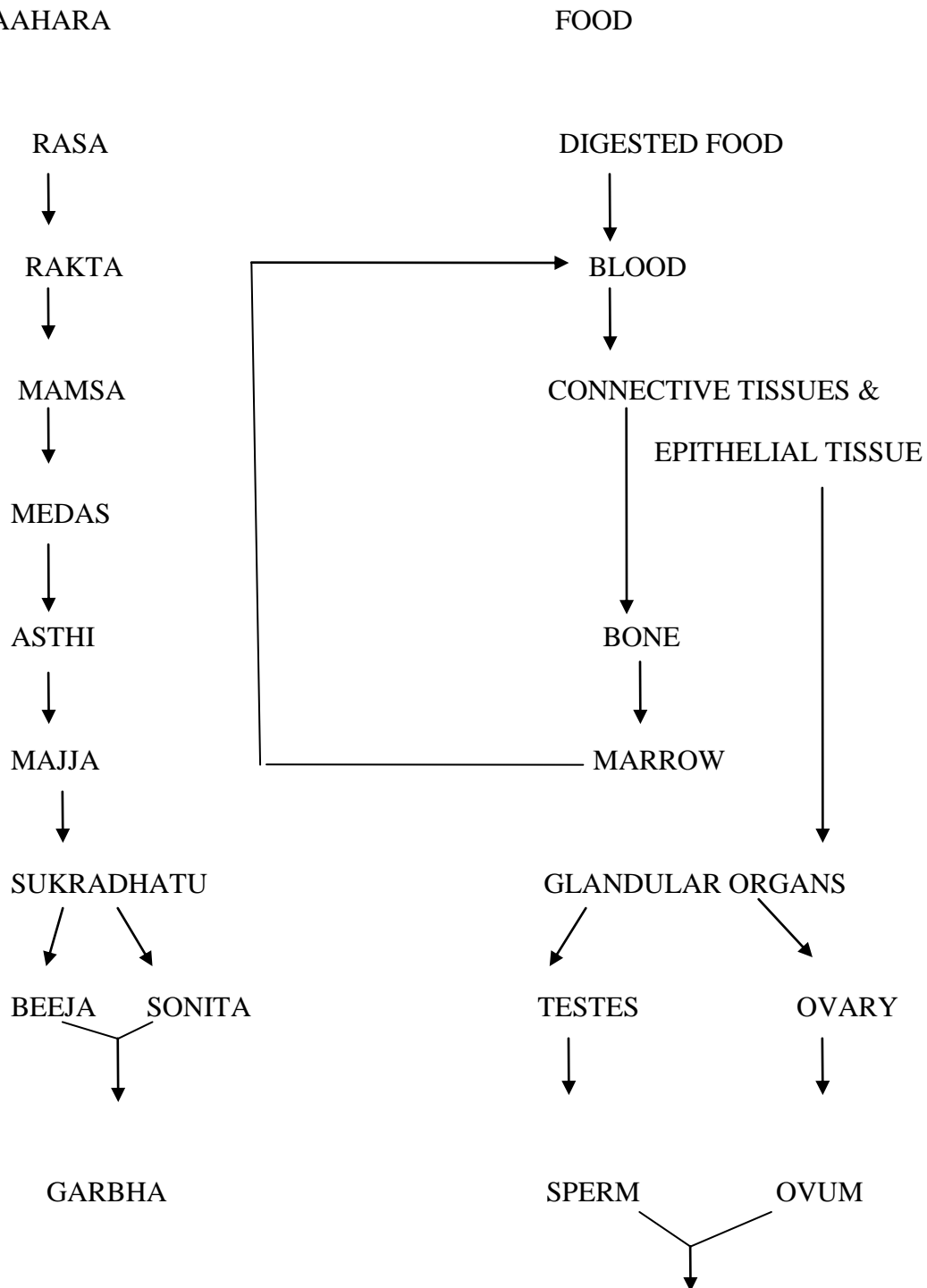
Medo dhatwagni- Lipid metabolism

Asthi dhatwagni- Ca and P metabolism, thyroid & parathyroid control

Majja dhatwagni- protein metabolism, iron metabolism, hemopoietic and erythroclastic activity

Sukra dhatwagni- glucose metabolism, protein metabolism, vitamin E metabolism
Nyayas explained above are meant for providing nutrition to the body and here a
 AAHARA

comparison of the *dhatuparinama* concept in *ayurveda* and the basis of nutrition in modern medicine represented as follows .



ZYGOTE

DISCUSSION

Ayurveda is not only an ancient vedic science but it is a mirror to the ideal healthy living. Ayurveda aims at “*swasthasya swasthya rakshnam, aturasya vikara prashamanam*”. Each and every principle of Ayurveda science clearly targets towards the keeping a person healthy and treating a diseased one. The main aim of it is to restore health and maintain body's well being. For the same all the *Dhatus* and *Doshas* must be in equilibrium state. To maintain the equilibrium state proper nutrition is required and to understand how the *Dhatus* gets nourished the concept of *Nyayas* has been explained.

CONCLUSION

In the study of different *nyayas* following conclusions were made:

Kedarikulya nyaya says that the nutrients assimilated in blood after *aharapaka* will reach different parts of the body at different times and the *dhatu* where the nutrients reach first will be first to get the

poshan. According to medical literature, the coronary arteries take the blood to the heart muscles are the first to get the supply of nutrients. The *Kedaris* here are representatives of small and large blood vessels. *Khalekapota nyaya* says that from the complex solution of different metabolic end products in the blood, that the different *dhatu*s will select only those components which is comparable with selective habit of a *kapota* while feeding. The *Ekkaladhatuposhana nyaya* of Arundhata says that all the seven *dhatu*s are formed simultaneously from *ahararasa*. The modern physiological literature describes in the similar tone that the metabolic end products of digestion reaches different cells by circulation at the same time and thus justifies the principle of one time cellular nutrition. The *Nyayas* can be suitably correlated with different metabolic pathways. The process of metabolizing the nutrients which are absorbed in the blood after digestion of food was very minutely studied by our *acharyas* and expressed in the form of *dhatuposhana nyayas*.

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