




A Conceptual Study of *Dhatu Poshan Nyaya* (Metabolic Transformation) in Ayurvedic Perspective

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ABSTRACT:

This review enlightens future research and scientific approach of Ayurveda in the context of *Dhatu Poshna Nyaya* (metabolic transformation and movement of substances through cell membrane). The things that truly support a living body are called *dhatu*. *Dhatu* denotes physical sustenance and food from the sole Sara component of the *Ahara Rasa*. A dietary substance's metabolism refers to a set of particular biochemical reactions that take place inside a living thing from the time it is incorporated into a cell or tissue until it is excreted, some of which are associated with tissue synthesis and other metabolic processes. Those who break down tissue are said to be catabolic or anabolic, respectively. Numerous explanations have also been put out in the case of *Dhatu Poshan*. Numerous ideas have been developed regarding the process by which different nutrients are ingested by the body. One should consider all of these *Nyayas* comparable to one another.

Keywords: - *Dhatu Poshna Nyaya*, *Dhatu*, Active transport, passive transport, metabolic transformation

INTRODUCTION

The means "*Dhatu*" comes from the Sanskrit '*Dharanat Dhatava*'¹ *Sapta Dhatu* is real; it was built of concrete substances like the plasma and flowing *Rasa* and *Rakta* and so forth. The *Sapta Dhatus* are continually being produced with the appropriate components from *Ahara* and only in humans do these processes take place to preserve equilibrium state. These *Dhatu* come in two varieties: *Asthayee* or *Poshaka* and *Sthayee* or *Poshya* (stable or to be fed) (unstable or which nourishes). *Sapta Dhatu* is already a steady and equal *Dhatu*. Precursor nutrients and chemicals that were derived from *Ahara*, are intended to

maintain, synthesise, and provide sustenance for *Sthayee Dhatu*. Thus, vital *Rasas* and *Malas* are the source of *Dhatu Samya* as it provide the body with balanced nutrition (homeostasis). According to *Sushruta*, the *Dosha*, *Dhatu*, and *Malas* are the foundation, support, or pillar of the body.²

The *Nyaya* is the analysis of a topic using appropriate evidence and logic. One's perspective, or *nyaya*, is how they see a process to be unfolding and can range from one to another. Additionally, in the case of *Dhatu Poshan*, Many theories have been put forth. Various hypotheses



have been proposed on the process of the nourishment of various nutrients that occurs in the body. established. The academics have attempted to explain the reality of the main *Nyayas* regarding *Dhatu Paka* are physiological. The following are the digestive and metabolic processes.³ Even bodily tissues are widely accepted. Numerous ideas have been developed regarding the process by which the body receives various nutrients (from *Ahara Rasa* upto *Sukra*).

AIMS AND OBJECTIVE

- (1) To study about the concept of *Dhatu poshan naya*.
- (2) To elaborate knowledge about transport and transformation.
- (3) To correlate between *Dhatu poshan naya* and metabolic transformation.

***Ksheera Dadhi Nyaya* (Metabolic Law of Transformation): -**

This theory speaks of transformation of one tissue into another in a particular order through the activity of respective *Dhatvagni*. The example given to state this theory is that of transformation of milk into curd, curd into butter and butter into ghee in the particular order.^{4,5} (Table 1)

***Khale Kapota Nyaya*:**

This idea describes how tissue factors control blood flow on their own. Depending on the specific tissue's metabolic requirements, blood flow is controlled to that area of the body. This hypothesis is illustrated by the story of various birds picking up grains from the same field and then flying back to their starting points. Here, the amount of grains is entirely according to the individual pigeon's requirements.⁶

***Kedari kulya nyaya* (The law of transmission)**

Explaining this theory of *dhatupošana*, *Cakrapani* has stated that *ahāra* through the process of digestion get changed a *rasa dhatu* and nourishes it. The remaining part of *anna rasa* (digestive product of food) now present in the circulation (*sthai rasa dhātu*) proceeds to nourish the *rakta dhātu* while passing through the places of blood (*vakṛta, pliha* etc.) in the body, receives the smell and colour of blood, while some portion of it is utilized in the nourishment of *rasa*⁷.

***Eka Kala Dhatu Poshana Nyaya*(Spontaneous process):**

-*Arundutta* has described that the *ahara rasa* percolates into all the *dhatu vaha srotas* simultaneously. This theory is known as *eka dhatu poshana paksha*.^{8,9} The *ahar rasa* circulates in whole body continuously for all times by normal activity of *vyana vayu*.

(1) Different physiological concepts supporting *Kshira Dadhi Nyaya*: -

This *nyaya* is supported by the sequential conversion of several chemicals. Here, the *acharyas* have revealed how one substance might become another. several metabolic conversion processes, such as glycolysis the kreb's pathway (Glucose 2 molecules of pyruvate. cycle (Oxalo acetic acid is produced from Pyruvate + Aceto Co-A), Pathway of gluconeogenesis (Pyruvate and then glucose-6-phosphate phosphoenolpyruvate Last but not least, glucose, the urea cycle (alpha amino acids, and Transamination and oxidation of keto amino acids occur. deamination to create urea) and other factors assist this *nyaya*. These procedures change one chemical into another Substance.^{10,11}

Glucose(2molecules)→Pyruvate+AcetoCoA→OAA→Ur
ea

(2) Different physiological concepts supporting *Kedari Kulya Nyaya*: -

According to this notion, *dhatu*s are fed through a transmission or transportation process. This procedure most likely clarifies the significance of pressure gradient. It controls how much fluid enters the tissue gaps. It explains how particles move passively throughout the cell. membrane along the gradient in concentration since water in the aforementioned illustration, passively enters several fields. in the gradient's direction of concentration. This idea may clarify several passive transport modes, including osmosis, filtration, enhanced diffusion, and diffusion.¹²

(3) Different processes support *Eka Kala Dhatu Poshana Nyaya*: -

According to *Acharya Charak*, the process of forming *dhatu* from *ahara rasa* is continuous and cycle-like.*Rasa* is *Vyana Vata* nourishes the body by circulating it throughout. every *dhatu*s 6 According to *Ek Kala Dhatu Poshana Nyaya* *Dahtu* receives nutrition concurrently (simultaneously) through several methods such as *kshira dadhi nyaya* and *khale Keptari kulya nyaya, kapota nyaya*.

(4) Different processes support *Khale Kapot Nayaya Khale*

Same is explained by *Chakrapani*, his opinion is in context to sequence of replenishment of seven *Dhatu*s and time factor. It is hypothesized that *Ahararasa* is like storage. Sequence of replenishment of *Dhatu*s is same. *Ahara rasa*

travels through all channels nourishing *Dhatu*. Nearest *Dhatu* gets replenishes immediately, the farther the *Dhatu*, lengthier is the channel. It takes more and more times for *Ahararsa* to reach sequentially all *Dhatu*s till last *Dhatu Shukra*.

DISCUSSION

This article mainly focused on *Dhatu Poshan Nyaya*. *Kedari Kulya Nyaya* And *Kshira Dhadhi Nyaya* appears to be appropriate in the context of the successive nourishment of the tissue while the third one, *Khale Kapot Nyaya* is not too appropriate during the digestive process, the *Ksheer Dadhi Nyaya* transform complicated foods into similar components including glucose, amino acids and fatty acid glycerol. Since the waste products of digestion are transported from tissue to tissue by the *Ahara rasa* that circulates in the body, the *Kedari Kulya Nyaya* also applies concurrently. Due to the incredibly rapid circulation and miraculously through blood circulation, the *Sthayee dhatu* and the *Dhatwagni* lying in them select only those substance from the circulation that are absolutely necessary for them. This is comparable to *eka kala dhatu poshan nyaya*.

CONCLUSION

Kshira dhadhi nyaya is supported by many biochemical transformational processes like the glycolysis pathway and Krebs's cycle. Any activity that needs energy (Active) (Transport) to keep our body's equilibrium in check *Khale Kapot Nyaya* is supported like passive transportation enhanced diffusion, filtration, osmosis, and other processes backing for *Kedari Kulya Nyaya*. *Ek-kala Dhatu* claims *Poshan Nyaya Dhatu's* are fed by each of the three procedures such as *Khale Kapot Nyaya*, *Kshira Dhadhi Nyaya*, *Kedari Kulya Nyaya* simultaneously. Thus, it can be said It is equivalent to what the traditional definition of *nyaya* metabolic processes describing several physiological functions changes in diet, which is why the traditional principles in the current situation is still notable.

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Table 1 Shows *Ksheera Dadhi Nyaya*

<i>Rasa</i> (Ksheera) Milk →	<i>Rakta</i> (Dadhi) Curd →	<i>Mamsa</i> Butter →	<i>Medas</i> Cheese →	<i>Asthi</i> <i>Ghrta</i> →	<i>Majja</i> <i>Ghrta</i> <i>mand</i> →	<i>Sukra</i> (<i>Sarva</i> <i>dhatu sara</i>)
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