

A REVIEW CONCEPT OF KLEDA IN AYURVEDA LITERATURE

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Abstract: Clinical utility of the knowledge of *Kleda* have not been established yet. It is directly not mentioned in any *Ayurveda* Texts. We need to understand it with differential conditions explained for the pathophysiology of the diseases in association with *Kleda*. Hence *Kleda* association with *Rasavaha*, *Raktavaha*, *Udakavaha*, *Lasikavaha Srotas* in the form of waste of *Kapha Dosha*. As well some incidence association with *Trimala* especially *Mootra* and *Sweda*. The biggest power source for all *Kapha* is *Kledak Kapha* which is located in *Aamashaya* in association with *Pachak Pitta*. *Kledan*, *Vilodan*, *Vidravibhavan* are the function of *Kledak Kapha* with *Dhatvagni* metabolism as a byproduct as *Kledanaat* to remove waste material is a *Karma of Kleda* which changes situationally. The first *Ahariya Rasa* will be deformed due to pathological changes in *Kledan Karma* of *Kledak Kapha*. It reflects in the functionality and *Guna* and *Karma* of *Kleda*. The end results of *Vikrut Kleda* ends in *Aam-nirmitti* with formation of *Ajeerna*. Also creates a disease like *Kushtha*, *Pidika*, *Prameha* etc.

Aim: To elaborate the concept of *Kleda* according to *Bruhadtrayi*.

Objectives: To establish role and functional utility of *Kleda* with basic fundamental principle of *Ayurveda*.

Material And Methods: We used *Charak Samhita*, *Sushrut Samhita* and *Astang Hradaya*, which all are based literature of *Ayurveda* for understand and justification of this concept of *Kleda*.

Key words: *Prakruta Kleda*, *Vikruta Kleda*, *Kledak Kapha*, *Mootra*, *Sweda*, *Dhatu (Rasa, Mamsa, Meda)*, *Agni*, *Annapachan*, *Inflammatory diseases*, *Noninflammatory diseases*, *C-reactive Protein*, *Micro and Macro urine albumin*.

Introduction:

Success is the process of any science depends on its fundamental principles and basic concepts. *Siddhanta* is an *Ayurvedic* term, which denotes basic or fundamental principles. These principles will be remained as everlasting laws, for the thousands of years. In *Ayurveda* the basic principles are *Dosha*, *Dhatu* and *Mala*. There are also included *Agni*, *Dravya*, *Kala*, *Panchamahabhoota* etc. *Dosha*(bio-energies), *Dhatu*(tissue-elements) and *Mala* (waste product) they are responsible for the maintenance of health as well as for the disease conditions.

Ayurveda is one of the most ancient systems of life, health and care. The first intent of *Ayurveda* is to maintain the healthy status of the community with the prevention of unborn diseases (*swasthasya swasthysya rakshanm*) and second one is to treat the already existance diseases (*aaturasya vikaar prashaman*).⁽¹⁾ In *Ayurveda* texts, the *Kleda* is not defined in a specific quotation. But in deep knowledge, we have seen the "*Kleda*" word is used in various place in *Bruhadtrayi* (*Charak Samhita*, *Sushrut Samhita* and *Astang Hradaya*).But it is always in a single word association with several condition to explained the disease. Hence, it's have several meaning in associated condition regarding *Kleda*. So, *Kleda* needed special references conditional study in *Bruhadtrayi*. *Ayurveda* is divided into eight branches known as *Astang Ayurveda*⁽³⁾ i.e. *Kaya*, *Bala*, *Graha*, *Urdhvang*, *Shalya* etc. *Kleda* is word which found in all these branches of *Ayurveda*.

In *Ayurveda* texts, *Kleda* word which is seen in the relation of *Dosha*, *Dhatu*, *Agni*, *Mala* as well as in *Guna* of *Dravya* etc. Regarding the concept of *Kleda* it is necessary to remember its association with a *Prakruta Avastha* of a person and *Vikruta Avastha* of the disease. *Prakruta Avastha*⁽²⁾ means *Swastha Avastha* (healthy situation), in which person has balanced or equilibrium condition of *Dosha*, *Dhatu*, *Mala*, *Agni* and happy and balanced state of soul, sense organs and mind. *Vikruti*⁽²⁾ means the study of changes taking place at the level of fundamental factors of the disease i.e. change may be in the form of either *Vruddhi* (exacerbation) or *Kshaya* (depletion) or *Vruddhi* (exacerbation) and *Kshaya* (depletion) together. *Vikruti Vijnana* deals with the fundamental factors essential to understand the disease process as well as to diagnose the disease. The explanation about this *Kleda* knowledge has been done by *Acharya* in a very elaborated manner. The following is a short comparative description of *Kleda* and its relation to basic fundamental science of *Ayurveda* – *Dosha*, *Dhatu* and *Mala* etc.

Kleda is described in the classics of *Bhava Padarth* or representation of *Jala Mahabhoota* in the body, which are *Jala* predominant and causing softening and loosening of solid materials on an account of its *Drava*, *Snigdha* and *Mridu* properties. So, *Kleda* is nothing but *Udaka* with some modification. Whenever the normal liquid portions (*Ardrata*) increase in *Dhatu*s as a result of metabolism or in some pathological conditions, it is to be eliminated mainly through *Mootra*. *Sweda* also helps in the elimination, but it is mainly done by *Mootra* as its function is mainly said as *Kledavahan*.⁽¹³⁾

Kleda, being *Apya* is more related to *Kapha* among the *Tridoshas*. But formation of *Kleda* needs the involvement of *Pitta* also. The function of *Pitta* is said to be *Swedana*, *Kledasruti*⁽⁴⁾ etc and *Pitta* by *Asrayaashryi Bhava*⁽¹¹⁾ relates to *Rakta*. So, we may say that excess *Drava Bhava* of the body carried in the form of *Kleda* through *Rakta*. This shows the possibility of *Kleda* formation in all *Dhatu*s.

Discussion:**Prakruta Kleda and Dosha relation-**

According to *Ayurveda*, there are three *Doshas* in the body- *Vata*, *Pitta* and *Kapha*⁽⁵⁾. Each of them five subtypes. *Kapha* has five subtypes which are described in all *Bruhadtrayi*⁽⁶⁾. The subtypes of *Kapha Dosha* are *Avalambak*, *Kledak*, *Sleshak*, *Bodhak*, *Tarpak*⁽⁶⁾. Among them *Kledak Kapha* resides in *Amashaya*⁽⁷⁾ and which main function is to do *Kledan Karma* of *Anna*(food particles) that is *Vilodan Karma*.⁽⁷⁾ Here 'Karta' is *Kledak Kapha*, 'Karan' is *Kleda* and 'Karya' is *Anna kledan*. So, it can be said that the process of *Annakledan* dependent on *Prakruta Kleda*. Hence *Prakruta Kleda* is directly related *Kapha Dosha*.

Prakruta Kleda and Agni relation

In *Ayurveda* many types of *Agni* are mentioned by *Acharya*. But here main 3 types of *Agni* are described.

Jatharaagni is mainly present in *koshtha*.⁽⁸⁾ The *Antah Koshtha* is *Maha-Srotas*(gastrointestinal tract) and which is *Aashraya* of *Aam-Pakwaashaya*⁽⁹⁾ (stomach and intestine). So, indirectly can say that *Jatharaagni* present in *Aamaashaya* and *Pakwaashaya*. *Kledak Kapha* resides in *Amashaya*⁽⁷⁾ and which main function is to do *Kledan Karma* of *Anna*(food particles)⁽⁷⁾. So it can be said that *Prakruta Kleda* is directly related *Jatharagni*. As well as by *Aashrayashryi bhava* which is also related *Dhatvagni* like *rasagni* etc. In our body there is also presence of *Jala mahabhootagni*, as well as *udakvaha srotas* related *udakagni* too. It is also one of the *Panchmahabhootagni*.

So here, *Prakrut Kleda* which directly and indirectly related to *Jatharagni*, *Dhatvagni* and *Mahabhootagni* and helps to maintain the *Kayagni* of the body.

Prakruta Kleda and Anna Pachan

According to *Ahara Parinamkara bhava*- six factors are mentioned which help in digestion of food. In which first *Ushma Pachati* (due to heat food is digested), *Vayurapakarshati* (vayu stimulates the mixing and propulsion of food), *Kledah Shaithilyam Aapadayati*⁽¹⁰⁾- provides watery content to ingested food, which is helpful to moisten, soften and unctuous the food. So, we can say that *Prakruta Kleda* plays a vital role in the process of *Anna Pachan* (digestion of food).

Prakruta kleda and dhatu relation

Acharya Vagbhat who has described as a *Ashrayashryi bhava*.⁽¹¹⁾ *Doshas* are all pervading in the body. But Each *Dosha* acts with specific media of *Dhatu* i.e. concern *Dhatu's srotas*. This media is called as '*Ashraya*' i.e. shelter. *Doshas* are the shelter-users and called '*Ashrayi*'.⁽²⁾ So according to *Acharya Vagbhat Kapha Dosha* is *Ashrayi* which shows its activity through its *ashraya* (shelter) i.e. *Rasa*, *Mamsa*, *Meda*, *Majja* and *Shukradi Abb-dhatu*.⁽¹¹⁾ *Prakruta Kleda* directly related to *Kledak Kapha*. The function of *Ashrayi* and *Ashraya* is the same i.e. to keep the union process at molecular level to provide nourishment, stability and support. Thus, *Prakruta Kleda* is indirectly related to above said *Abb-Dhatu*.

Prakruta Kleda and Mala relation

There are three types of *Mala* mentioned in *Ayurveda*- *Mootra*, *Shakrud* and *Sweda*.⁽¹²⁾ Among them action of *Mootra* is *Kledavahan* which means to circulatory *Kleda* in specific direction.⁽¹³⁾ *Sweda*, its main function *Kleda-vidhruti* which means consist of *Kleda* for a specific time in the body is the function of *Sweda*.⁽¹³⁾ According to *Acharya Sushrut*, *Sweda* is responsible for making the *Twak-sukaumaryatva* with the help of *Kleda*.⁽¹⁴⁾ So, here *Prakruta Kleda* is directly related to *Mootra* and *Sweda Mala* to remove waste of the body by the means of *Kleda-vidhruti*.

Vikruta Kleda and Dosha relation

Prakruta Kleda is directly related *Kapha Dosha*.⁽⁷⁾ In *Vikruti of Kleda* which is not able to do proper function of *Kledana Karma* and disturb the process of *Anna Kledana* and *Anna Vilodan*. So here, *Vikruta Kleda* is disturbing the normal action of *Kledak Kapha*. Thus, the *Vikruta Kleda* directly affects the action of *Prakruta Kapha Dosha*.

Vikruta Kleda and Agni relation

When the *Kleda* increases or decreases from its *Prakruta Avastha* and becomes *Vikruta*, then it will disturb the normal functioning of *Agni*. For example, just like aggravation of *Kapha* in *Mandagni*.⁽¹⁵⁾

Vikruta Kleda and Anna Pachan

Due to vitiation of *Kledak Kapha* formation of *Vikruta Kleda* is occurred. It leads to decrease in the function of *Pachak Pitta*. Thus it causes *Agnimandya* and further production of *Aam*.⁽¹⁶⁾ Due to this *Aam*, it produces *Ajeerna*.⁽¹⁷⁾ This is how, we can say that *Vikruta Kleda* is affecting *Anna-pachan kriya*.

Vikruta Kleda and Dhatu relation

There is existence a close relationship in between *Ashraya (Dhatu)* and *Ashrayi (Dosha)*. They will both affects to each other. ⁽²⁾ If *Dosha* gets disturbed, it will attacks on *Ashraya (Dhatu)*⁽²⁾. *Ashraya* and *Ashrayi* get disturbed simultaneously. ⁽²⁾ For example, if *Pitta Dosha* increases, *Rakta* and *Sweda* also increase and if *Rasa* increases then *Kapha* will increases. ⁽²⁾

As per the *Ashray- Ashrayi Bhava*, *Vikruta Kleda* vitiates *Mamsa Dhatu* resulting in *Pidika Utapaati*.⁽¹⁸⁾ As an example in *Sharavika Pididka* have symptoms like *Antonata* (the edges of pidika are raised), *Madhyanimna* (middle part is depressed), *Shyava* (dusky-red), *Kleda* (slough) and *Ruja* (pain) will be there. As its shape is like an earthen saucer (*Sharavika*), hence its name stand for *Sharavika*.⁽¹⁹⁾

It can be understood by another example like, when *Vikruta Kleda* affects the *Mamsa* and *Meda* which goes in to *Basti* and hampers the function of *Mootra*.⁽²⁰⁾ Its symptom originate like *Prabhoota Aavila Mootrata*. Also in this condition, the color of the urine can be changed like *Swetadi varna* etc.⁽²¹⁾

Vikruta Kleda and Mala relation

When this *Vikruta Kleda* affects the *Meda* and reaches towards the *Basti*, it will produce *Prameha*. As well as results in *Prabhoota Aavila Mootrata* (discoloration and excess production of urine).⁽²¹⁾

When this *Vikruta Kleda* affects the *Sweda*. It produces *Aswedan* and *Atiswedan lakshan* as a *Poorvarupa* of *Kushtha vyadhi*.⁽²²⁾ It also hampered *Kleda-vidhrti Karma* of *Sweda Mala*. The normal *Twak- Saukumaryata* get affected.⁽²²⁾

Vikruta Kleda in Modern Science

In the *non-inflammatory* diseases, like Diabetes mellitus, Arthrosclerosis, Autoimmune disease, Hypertension, complication of D.M. like Carbuncles. Here, ESR will never rises. Thus, it is associated with sudden acuteness raised in C-RP.

How we can judge and prove the relation of C-RP and *Abb-dhatu dushitjanit vyadhi* towards *Kleda*?

Mootravaha Srotas with complications of *Prameha*, cystacin-C⁽²³⁾ (mainly used as a biomarker of kidney function), micro albumin (>30 <299mg/dL) and macro albumin(>300mg/dL)⁽²⁴⁾ values are disturbed. Due to the *Vikruta Kleda*, the normal functions of the kidneys are affected which leads to hampered the *Prakruta Karma* of *Mootra vikriti* in *Kledavahana*. So, the quality and quantity of urine present with pathological variations.

In Atherosclerosis, there is a loss in connective tissue elasticity with percolating action rigidity may end up due to building up of plaque (fats, cholesterol and other substances) in the arteries. So, we can say that due to *Karma* of *Vikruta Kleda* in arteries, the pathologic process of lipid accumulation, scarring and inflammation in the vascular wall. Particularly, the sub-endothelial space of arteries, leading to vascular wall thickening, luminal stenosis, calcification and in some cases thrombosis too.⁽²⁵⁾ In MI.(Myocardial Infraction), we can see the same pathophysiology mentioned above in atherosclerosis. It is due to thrombotic occlusion of a vulnerable plaque.⁽²⁶⁾ In this process, the *Karma* of *Vikrutaa Kleda* is seen. The same pathophysiology is likely to be seen in ischemia of blood supply to other organs.

Even its role in early *Senile diseases* like hypertension, dementia, cancer, diabetes mellitus and osteoarthritis can be seen by the means of *Prakrut Kleda Kshaya*. Which need the different kinds of treatments like *Rasayana – Vajikarana Chikitsa* for rejuvenation in *Ayurveda Science* mentioned by *Acharyas*.

In a Covid-19 patients, the clinical investigations like C-RP and D-dimmer values are seen to be aggravated.⁽²⁷⁾ With sudden increasing in *Vikruta Kleda Nirmiti* in lungs. Alveolar space filled up due to cytokine release syndrome (CRS). It may alter in blood constituent raised in clotting and hence, sometimes the conditions like paralytic attack (Cerebral vascular arrest) are likely to be occurred due to *Vikruta Kleda Nirmiti*. It is the biggest symptom due to *Vikruta Kleda* production in *Vikruta Abb-dhatu Dushti like – Rasa, Rakta, Udak, Lasika* etc. It is responsible for early mortality in Covid-19 pandemic situation.

Conclusion:

Kleda is an important principle of *Ayurved*. From above said factors, it can be concluded that *Kleda* plays an important role in normal physiological process of the body. This *Kleda* directly and indirectly related to *Dosha, Dhatu, Mala, Agni* etc. This *Prakruta Kleda* helps in normal functioning of *Dosha, Dhatu, Mala, Agni* etc. and maintains normal physiological process of body. When it turns to the *Vikruta Avastha*, it will produces the diseases by disturbing the normal functionality of *Dosha, Dhatu, Mala* etc.

Concept of *Kleda* is significant in proper diagnosis of disease. So, we can come to the final conclusion that *Kleda* is used in *Ayurveda* as a normal constituent needed for the functions of body, helping in digestion, existing in all *Dhatu*s, softening them in normal amount. And when this *Vikruta of Kleda* exceeds a particular limit, it hampers the functions of *Dosha, Dhatu, Agni, Anna-pachan*, and *Mala kriya*. It leads to manifestation of various diseases like *Prameha, Prameha-pidika, Kushtha, Ajeerna, Aam* etc.

So, we can say that *Kleda* plays crucial role in *Ayurveda* science.

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