

A COMPREHENSIVE REVIEW ON CONCEPT OF PANCHAMAHABHUTA SIDDHANT AND DRUG ACTION IN AYURVEDA

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ABSTRACT

Background: The Panchamahabhuta Siddhanta forms the basis of understanding the interactions between these elements and their impact on the body's constitution, health, and disease. According to Ayurveda, the balance and harmony of these elements within an individual's constitution (Prakriti) are essential for maintaining good health. Any imbalance or disharmony among these elements can lead to various health issues. The goal of ayurveda is to restore balance and harmony among these elements, promoting overall well-being and preventing disease. Panchamahabhutas are crucial to the body's physiological processes as well as the pathophysiology of disease. **Aims and Objectives:** This paper is trying to elaborate, evaluate and discuss the concept of Panchamahabhuta Siddhanta and Ayurvedic drug action according to them. **Materials and Methods:** For the purpose of the current conceptual study, a thorough survey of the literature on

Panchamahabhuta theory in the form of dissertations, thesis, review articles, internet sources, contemporary concepts and, Reference texts is done. **Discussion:** Panchamahabhuta Siddhant is involved in each diagnostic and therapeutic phase, while the selection and administration of drugs they are individualized, considering a person's Prakriti and Vikriti, which is only achievable after having a thorough understanding of Panchamahabhutas, which serves as the cornerstone for all other Siddhanta (principles).

KEYWORDS: *Panchamahabhuta, Chikitsa Dravya, Drugs action, Prakriti.*

INTRODUCTION

The *Panchamahabhuta Siddhanta* is a fundamental principle in *Ayurveda*, an ancient Indian system of medicine. The word *Panchamahabhuta* is derived from the word 'Pancha' which means 'five' and 'Bhuta' means 'which exists', which is based on the concept of the five elements (*Panchmahabhutas*) and their influence on the human body and the natural world. According to *Ayurveda*, everything in this universe, including the human body, is composed of these five elements.^[1] These five elements are *Prithvi* (Earth), *Jal* (Water), *Tejas* (Fire), *Vayu* (Air) and *Akasha* (Free space/ Ether). It is said that both the human body and the food we eat are *panchabhautika* (Penta elemental). The *Parthiv aadi* (*Prithvi* Dominant) qualities of the food nourish the *Parthiv- aadi* sections of the body during digestion with the aid of *Jatharagni* (digestive fire). In this manner symmetrical properties of *Panchmahabhutas* give nutrition to corresponding symmetrical part of body (corresponding *Mahabhuta*).^[2] According to *Ayurveda*, each person's constitution (*Prakriti*) and the ratios of the three *doshas* (*Vata*, *Pitta*, and *Kapha*) differ. Each *dosha* is connected to a particular element (*Panchamahabhuta*). *Vata*, for instance, is linked to the elements of air and space, *Pitta*, to the elements of fire and water, and *Kapha*, to the elements of earth and water. *Ayurvedic* medicines are often prepared using a combination of herbs, minerals, and other natural substances. The choice of ingredients and their proportions is influenced by the principles of the *Panchamahabhuta Siddhanta* or the *Gunas* which is also directly related to the *Panchmahabhuta Siddhanta*. The goal of *Ayurvedic* drugs is to create formulations that address specific imbalances while considering the elemental makeup of the substances. When administering medications, *ayurveda* takes the patient's constitution and *dosha* imbalance into account with the aim of bringing the *doshas* and components back into harmony.

OBJECTIVE

To elaborate and understand the physiology of Mechanism of action of Ayurvedic Drugs and their Relation with Panchamahabhuta.

MATERIALS AND METHODS

Various Ayurvedic texts including Charaka, Sushrut Samhita, Darshans are reviewed and information from various journals, books, research articles, dissertations, internet source etc., are taken and analyzed for this research.

Concept of Panchamahabhuta

Ayurveda provide a detailed explanation of the notion of *Panchamahabhuta*. Whether it is a living thing or not, every substance in the universe has a unique *panchamahabhautic* composition. *Ayurveda* is built on the idea of *panchamahabhuta* (five components) for *Chikitsa*. It recognizes that there are five fundamental elements (*Akash*, *Vayu*, *Agni*, *Jal*, *Prithvi*) that make up everything in the universe. The equilibrium of these five elements in the human body denotes the health while the imbalance of these denotes disease (*Vyadhi*).

The *Panchamahabhuta* concept divides the fundamental traits of a human being into three groups, each with its own special quality known as *Prakriti*. These are *Vata*, *Pitta*, and *Kapha Prakriti*.

<i>Dosha</i>	<i>Mahabhuta Dominance</i>
<i>Vata</i>	<i>Vayu, Akash</i>
<i>Pitta</i>	<i>Agni</i>
<i>Kapha</i>	<i>Jal, Prithvi</i>

Mahabhuta, which is based on this composition, is crucial in determining a person's *Prakriti* (basic constitution) and in the treatment of diseases. For example, if a disease develops as a result of a decrease in *Vata Dosha*, a regimen that increases *Vayu* and *Akasha Mahabhuta* will be effective in treating that disease. The *bala* of any one *Mahabhuta* can cause disease according to the theory that uses *Panchmahabhuta* as the fundamental premise for diagnosing and treating any ailment.

In this case, the "*Yat Pinde Tat Bramhande*" law is practically applied; for instance, an increase in water on earth can lead to flooding or drought, and an increase in water (*Ap*) inside the body can result in *madhumeha* or any other ailment. The phrase "*Sarvam Idam Panchmahabhautikam Asmin Jagate*" indicates that we are speaking in the language of *Mahabhuta* here rather than the usual terminology of *Dosha* and *Dhatu*, indicating the importance of *Panchamahabhuta*.^[3]

Properties of Mahabhuta

AKASH (Hollow space/ Ether): - It is most expansive and least concrete of all. It is found in hollow spaces within the body and empty regions of the cosmos. It mostly shares traits with the concepts of Sound (*Shabda*) and Non-resistance (*Apratighatatwa*). It has characteristics like soft (*Snigdha*), light (*Laghu*), subtle, and unquantifiable. The sensory organ associated

with *akash mahabhuta* is ear, according to *Ayurveda* since it conducts sound waves and is hollow. *Akash* is omnipresent in the sense that it contacts all the material substance of the universe from all the directions.^[4]

VAYU (Air): - Its primary characteristic is motility. *Vayu* exhibits a feeling of motion and keeps the body moving continuously. Given that the skin is the sensory organ connected with *Vayu*, *Sparsha* is the *Tanmatra* of *Vayu Mahabhuta*. The attributes of *Vayu* elements include mobility (*Chal*), dryness (*Ruksha*), coldness (*Sheet*), and lightness (*Laghu*). It oversees the body's mobility and dryness. Any diet, activity, or medication with these effects on the body will raise *Vata*, or the *Vayu Mahabhuta*. *Vayu* is the generator and controller of all the movements.

AGNI (Fire): - It is sweltering, cutting, powerful, dry, and light. It gives forth heat and light. It has the senses of vision (*Roop*) and touch (*Sparsha*), but its main quality is heat (*Ushnatwa*). This element indicates a transformational process, making digestion and metabolism a logical association. It has properties that are sharp (*Tikshna*), light, dry, and subtle. *Agnimahabhuta* is seen as overseeing several processes, including food digestion, intelligence, and perception of light. This element will be increased in our bodies by any related foods, drinks, routines, exercises, or herbs like, peppers, ginger, garlic, and chillies.

JALA (Water): - Water is unctuous (oily), chilly, soft, cohesive, or sticky, and moist and known as *Ap*. It provides *Rasa* (Taste) and possesses the property of liquidity (*Dravatawa*). By holding together cells, it has a binding characteristic and aids in the formation of various body structures. It controls positive forces. *Rasa* was connected to it because saliva and the fluidity of the tongue affect flavour. Numerous meals, milk, and plants all contain water in addition to our bodies. In human bodies, too much water boosts rather than lowers the qualities listed above. It is beneficial to drink water if you have *Pitta* and *Vata*-related illnesses. For instance, acidity, skin issues, diarrhoea, dryness, and a buildup or excessive breakdown of metabolites or endotoxins, it serves as a detoxifying agent.

PRITHVI (Earth): - It is sturdy, stable, heavy, hard, uninteresting, and slowly moving. It contributes for Roughness (*Kharatwa*) and odour (*Gandha*). It has traits that are substantial, heavy, coarse, and hard and is related to hard structures like bones, muscles, and teeth. *Prithvi Mahabhuta* is thought to oversee giving the body its structure, form, and strength. Since soil fragments are dispersed and provide a sense of smell, *Gandha* (Smell) is regarded as a

Tanmatra for *Prithvi Mahabhuta*. It makes up both our body and the solid structures of the cosmos. Any food, activity, or plant with similar characteristics will nourish, support, and make the body feel heavy, and will increase strength and stability

Mahabhutas and Trigunas

Manas Prakriti is the term used to describe a person's psychological and mental constitution. *Ayurveda* recognises a mental constitution, just as every person has a physical constitution (body type) characterised by the harmony of the *doshas* (*Vata*, *Pitta*, and *Kapha*). The three *Gunas* (*Sattva*, *Rajas*, and *Tamas*), which stand for various mental traits, have an impact on this mental makeup. In *Ayurveda*, *Manas Prakriti* and *Panchamahabhuta* work together to provide a comprehensive understanding of a person's constitution, health, and well-being. *Ayurveda* emphasize on correcting the imbalances and encourage harmony on all levels of a person's being by considering both the mental constitution, which is impacted by *Gunas*, and the physical constitution, which is influenced by elements (*Panchamahabhuta*).

<i>Mahabhutas</i>	<i>Gunas</i>
<i>Akash</i>	<i>Satva</i>
<i>Vayu</i>	<i>Raja</i>
<i>Agni</i>	<i>Satva + Raja</i>
<i>Jala</i>	<i>Satva + Tamas</i>
<i>Prithvi</i>	<i>Tamas</i>

The relation of Mahabhutas and the Human Body

Ayurveda believes that everything in this universe is made up of *Panchamahabhuta*. The core of *Ayurveda's* understanding of its physiology (normal functioning), pathology (disease genesis), and pharmacokinetics (drug transport within the body) is the concept of *panchamahabhutas* (five components). These are the minutest elements, which constitute living and non-living matters. These fundamental components make up all living things, including drugs, herbs, and medicinal plants. All of these are present in all matter. Each of the five elements can be found in one living thing's cell. The primary structural component of the cell is the earth, or *Prithvimahabhuta*. Water, or *Aapamahabhuta*, makes up the cell's cytoplasm. The *Agnimahabhuta* controls the many metabolic processes of the body cells. These fundamental components make up all living things, including drugs, herbs, and medicinal plants. All of these are present in all matter. The *Vayumahabhuta* governs the space inside the cell. Finally, the *Akashmahabhuta* provides the pathway by which nutrients and waste products are delivered to the various areas of the body. Thus, the framework of living

things is made up of these five *Panchamahabhuta* elements. These are the building blocks of the body.^[5] Different symptoms can be caused by an imbalance of these five elements in the body depending on the qualities that each of the elements possesses, known as *Gunadwandva* (duality of qualities). *Loka*, which is composed of *Panchamahabhuta*, as well as *Sharira* in accordance with *Panchamahabhuta*. *Vata*, *Pitta*, and *Kapha* are the three groups into which *Siddhants* are divided, each with their own distinctive traits. *Vayu* and *Akashmahabhuta* are the dominant components in those who exhibit *Vata* traits. *Agnimahabhuta* is present in *Pitta* individuals, whereas *Jala* and *Prithvi mahabhuta* are predominant in *Kapha* individuals. Therefore, *Panchamahabhuta* controls the several parts of the body's structure and its functioning.^[6]

Panchamahabhuta with human body and the Universe: - There is a concept known as *Lokpurushasamya Siddhanta* is mentioned.^[7] *Lok* here refers to the cosmos and *Purush* is the human.^[8] The universe itself is thought to be composed of these elements, and they interact to create and sustain all forms of existence. The balance and interplay of these elements are seen as fundamental to the harmony of the universe. Numerous processes that take place in the universe also take place in human bodies.^[9] This idea makes it clear that the universe and the human body share many qualities, functions, and structural elements, Thus, considering *Panchamahabhuta* during *Chikitsa*.

Occurrence of disease in relation to Panchamahabhuta

Every component of the human body contains *Panchamahabhutas*. However, their domination is apparent in some areas. The area from the bottom of the thigh to the toe is dominated by *Prithvi Mahabhuta*. The Upper body part is mainly dominated by the *Akash*, *Vayu*, and *Agni Mahabhuta*.

Sthan vishesha of each *Mahabhuta*^[10]

Prithvi- *Adho Shakha*

Jala- below *Nabhi* and *Kati Pradesha*

Teja- surrounding to *Nabhi*

Vayu- above the *Nabhi* up to *Jatru*

Akasha- *Jatru Urdhva*

Drug action according to Panchamahabhuta Siddhanta

Everything in the universe, according to *Ayurveda*, is composed of *Panchamahabhuta*, these are all present in every matter, including *Dravyas*. *Acharyas* have claimed that due to their symptoms, subsidence, and scriptural support, *Vata*, *Pitta*, and *Kapha*, The *Tridosha* are the primary causes of all pathogenesis inside the body. Because the entire cosmos is *Panchabhautic*, the chaos in all the manifestations would not exist without *Tridoshas*. All these changes and pathologies result from variations in the *Panchabhautic* makeup of the doshas.

<i>Mahabhuta Pradhan Dravya</i>	<i>Alleviation of Dosha</i>
<i>Prithvi, Agni, Jala</i>	<i>Vata</i>
<i>Prithvi, Jala, Vayu</i>	<i>Pitta</i>
<i>Akash, Agni, Vayu</i>	<i>Kapha</i>

When an individual experiences health issues, it indicates an imbalance in these elements. Drugs are used to restore this balance. The specific action of a medicine is determined in part by *Panchamahabhuta*. The pharmacodynamics of several *Ayurvedic* medications depends on this. Drugs possess inherent qualities that align with the qualities of these five elements. Drugs are chosen based on their qualities, which counterbalances the excess or deficiency of specific elements in the body. Certain changes and pathologies result from variations in the *doshas*, since each *dosha* is influenced by elements too, drugs help to maintain the balance of the *doshas*. *Ayurvedic* medications are created and utilized to restore balance inside the body by affecting these elemental components. They are taken from natural sources such as plants, minerals, and animals. *Ayurvedic* drug action is highly personalized. The same drug can have different effects on different individuals based on their unique constitution, imbalances, and needs, which is directly related to the *prakriti* of any individual. Understanding the theory of the five components and the formation of the *panchabhautik* helps aid in their pharmacological action. *Ayurveda* choose drugs and therapies based on the patient's *Prakriti* (individual constitution) and the *Vikriti* (current imbalance or disease). The idea is to use substances with properties that can balance or counteract the excess or deficiency of specific elements (*Panchamahabhuta*) in the body. The ancient *Ayurvedic Acharyas* understood that *Pancabhautika* is the name for all that exists in the universe. *Bhagwan Atreya* and others therefore make sure that if one can determine the *Mahabhuta* preponderance in any *Pancabhautika* medication, he can employ everything in this world for *Chikitsa*. The understanding of *Pancamahabhutas* is completely necessary for the *Ayurvedic* pharmacology.

The goal of *Ayurveda* is *dhatusamyata* (equilibrium state of *dhatus*). According to *Acharya Charak*, the *samanyam* (similarity) principle aids in restoring depleted similar *dhatus* in the body, and when *dhatuvridhhi* is present, we must treat with *vishesha dravyas* (opposite substances), this is the ***samanya-vishesha Siddhanta*** of *Acharya Charaka*.^[11] When it comes to *rasas* considering if someone has a *Pitta dosha* imbalance or is experiencing symptoms related to excess heat in the body, *dravya* with *Madhura* (*Prithvi* + *Jala*) and *Tikta* (*Jala* + *Prithvi*) *rasas* might be prescribed to cool and balance *Pitta*. Conversely, if someone has a *Kapha dosha* imbalance or congestion, a formulation with *Katu* (*Jala* + *Agni*) and *Tikta* (*Jala* + *Prithvi*) *Ras dravyas* are recommended to promote warmth and clear excess mucus. Any *Dravya's Rasa, Guna, and Karma (Ras Panchak)* can also be changed by applying the proper *Samskara* to them. Thus, we need to understand the *panchabhautik* composition of medicinal drugs to achieve this goal.

Taking an example of *Triphala*: - *Triphala* is a combination of three fruits - *Amalaki* (*Embolica officinalis*), *Bibhitaki* (*Terminalia bellirica*), and *Haritaki* (*Terminalia chebula*). It is a commonly used herbal remedy, and its actions can be explained using the *Panchamahabhuta Siddhanta*.

Prithvi (Earth): The three fruits in *Triphala* have astringent (*kashaya rasa – Jal + Prithvi Mahabhuta*) properties, which can help tonify and strengthen bodily tissues. This aligns with the earth element's stability and structure. *Triphala* is often used to support digestive tissues and maintain healthy mucous membranes.

Jala (Water): *Triphala's* mild laxative effect (*Jala Mahabhuta*) helps in promoting healthy elimination of *doshas* and support fluid balance within the body. This action corresponds to the water element's fluidity and balance.

Agni (Fire): *Triphala* supports the digestive fire (*Agni*) by promoting efficient digestion and assimilation. Its sour and astringent tastes (*Rasas*) stimulate the digestive processes, aiding in better nutrient absorption and metabolism.

Vayu (Air): *Triphala's* ability to support regular bowel movements (*Motility*) and cleanse the digestive tract helps to balance the air element. It helps to alleviate symptoms of gas and bloating, promoting smoother movement within the intestines.

Akasha (Ether): *Triphala's* cleansing and detoxifying actions create space within the body by removing waste and toxins. This supports the ether element's concept of spaciousness and purification.

Clinical action: - Drugs with the predominance of *Vayu mahabhuta* act as an astringent and have an easing effect on the body. They also absorb moisture due to their *shoshak guna* (absorption property). Drugs with a high concentration of *Agni mahabhuta* aid in aggravating *Jatharagni* (digestive fire), which increases appetite. Drugs with a majority of *Prithvi* and *Jala mahabhuta* have *brumhana* (weight-gaining) effects on the body, whereas those with a predominance of *Vayu* and *Agni mahabhuta* operate as *lekhaniya dravya* (scrapping agents). If any of these mahabhuta become vitiated in the body and result in an illness, they can be restored to normal by administering *dravya* (Certain medications) and *aahar* (Dietary changes) containing *mahabhuta* with the opposite qualities. Giving *Vayu*, *Agni*, and *Akash mahabhuta Pradhan Dravya* helps heal *Prithvi mahabhuta* when it becomes vitiated since they have the opposing attributes of *Prithvi mahabhuta*.^[12]

The Principle of *Santarpana* and *Apatarpana Chikitsa* of *Ayurveda* aim to restore the balance by addressing specific imbalances in the elements and *doshas* within the body. *Santarpana* is the therapeutic approach used when the patient's body is weakened, malnourished, or depleted of essential nutrients and energy. It involves providing nourishing, heavy, and building substances to the patient to promote strength, increase body tissues, and improve overall health. *Santarpana Chikitsa* is used in cases where the patient has a *Vata* (*Akash + Vayu*) or *Pitta* (*Agni + Vayu*) constitution and is experiencing excessive weight loss, weakness, and depletion of bodily tissues. Here predominantly *Jala* and *Prithvi Mahabhuta Chikitsa* is used to alleviate the *Vata* and *Pitta dosha*. As *Prithvi* represents stability, solidity, and nourishment while *Jala* represents fluidity, lubrication, and nourishment. Nourishing foods, tonics, and rejuvenating herbs are commonly used in *Santarpana Chikitsa* to rebuild and revitalize the body. *Apatarpana* means depletion or reduction. This therapeutic approach is used when the patient has an excess of mainly *Kapha* (*Jala + Prithvi*) *dosha*, or excessive accumulation of tissues (*Doshas*), leading to various health issues. The goal of *Apatarpana Chikitsa* is to reduce and eliminate the excessive or unhealthy elements in the body to restore balance, which is mainly done by *Akash*, *Vayu*, and *Agni mahabhuta*. In general fasting, detoxification therapies (*Panchakarma*), and dietary restrictions are common components of *Apatarpana Chikitsa*.

CONCLUSION

It is very clear from the review study that Panchamahabhuta Siddhant is involved in each diagnostic and therapeutic phase. One can account for the causes of the imbalance of doshas and, consequently, determine the remedy for therapy based on extensive knowledge and understanding of Panchamahabhuta Siddhant. Panchamahabhuta Siddhant can interpret the reasoning of everything that cannot be described by Tridoshas or dhatus, extremely and effectively. All Dravya's can be employed as medicine, but doing so requires sound reasoning and Yukti. The holistic approach of Ayurveda considers not only the physical aspects but also the mental, emotional, and spiritual dimensions of health. Therefore, the selection and administration of Ayurvedic drugs are individualized, considering a person's Prakriti and Vikriti. Additionally, this is only achievable after having a thorough understanding of Panchamahabhutas, which serves as the cornerstone for the other Siddhantas (principles). The fundamental concept of Panchamahabhuta is not mere a philosophical concept but is a practical concept which can be used in medical science effectively.

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