ABSTRACT

Ayurveda is a holistic science which is considered to be anadi in origin. It is logical to claim its existence since the appearance of life on earth. Living in harmony was the major factor which helped man to know the nature in a subtle way. People were dependent on nature for food and shelter. They accustomed to a healthy lifestyle probably through multiple trial and errors. Owing to the intellectual abilities and keen observational skills, ancient scholars explored the universe in relation to human body for promoting health. During the process, various theories were proposed like pancamahabhoota siddhanta and pinda brahmanda nyaya. Subsequently, these theories further underwent through various stages of development and became base for all the basic principles of Ayurveda. In this work, probable method of origin of pancamahabhoota siddhanta is explored retrospectively and various subsequent doctrines derived from this theory are explored from clinical point of view.

Keywords: Ayurveda, Origin of Pancamahabhoota Theory, Pinda-Brahmanda nyaya, Siddhanta
INTRODUCTION:

Existence of Earth is believed to be since 4.5 billion years while the human life is assumed to have evolved since 3 billion years. Survival of human since then is primarily dependent on food and shelter. For the maintenance of health, adaptation to the environment is necessary. Nature is the source for daily needs of man like food articles and shelter. Often, the drugs would have positive effect on the health while there could be deterioration effect on the body at times. Thus, maintenance of healthy regimen necessitated the ancient scholars to note these happenings through good observational skills. There was a need to rectify the altered physiology by modifications in diet, regimen or probably through the use of medicinal drugs. This practice had steered the origin of field of medicine. Ayurveda is one such indigenous system of medicine, focusing on both preventive and curative therapy. It is developed based on several doctrines. Pancamahabhoota theory forms the base of all other doctrines.

Origin of Pancamahabhoota Theory

Living in harmony with the nature played an important role in understanding its phenomenology in a subtle way. Thus, ancient scholars noted different types of objects around them. Some of those objects having properties of hard, heavy and rough are commonly known as parthiva. Few of the substances having the ability to flow and liquid in nature are termed as jaliya dravya. Few other substances with hot nature are called as taijasa/agneya dravya. Some of the objects having properties of lightness and ability to create sound are termed as vayaviya and the space, known...
by akasha, formed the base for existence of other four substances. They are collectively called as panchamahabhoota. Consequently, all the dravyas were accepted to be made of these five elements with the predominance of any one of them. Thus, the theory of panchamahabhoota got originated.

As the man used to live amidst the nature, He had immense knowledge about various drugs of plant and animal origin through constant usage and keen observation. Hunger and thirst were quenched through these natural sources. During the process, by virtue of intellectual skills, He perceived certain phenomenon called as “lokapurusha samyata”, also known as “pinda brahmanda nyaya”. It states that, “whatever is present in the nature in gross form is present in human body in subtle form”. Amalgamation of panchamahabhoota theory with pinda-brahmanda nyaya became the initial step in developing various Ayurveda principles.

**Theory of Microcosm and Macrocosm:**

Human body is an epitome of universe. Pinda refers to “microcosm” while brahmanda refers to “macrocosm”. Individual creature (purusha) is a replica of the vast universe (loka) in subtle form. This is termed as “lokapurusha samyata” or “pinda brahmanda nyaya”.

Doctrine of Pancamahabhoota too follows this maxim. Various internal structures of the body constitute the five elements of the universe. Following table substantiates the above theory.

**Table 1: Similarity between Universe and Human Body**

<table>
<thead>
<tr>
<th>Factor in universe</th>
<th>Similarity in the body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prithvi</td>
<td>Asthi, Snayu, Kandara</td>
</tr>
<tr>
<td>Ap</td>
<td>Rasa, Rakta, Kleda, Mutra</td>
</tr>
<tr>
<td>Teja</td>
<td>Jatharagni, Shareera-Ushmata, Drishti</td>
</tr>
<tr>
<td>Vayu</td>
<td>Pancavata – Prana, Apana</td>
</tr>
<tr>
<td>Akasha</td>
<td>Sthoola and Sukshma Srotas</td>
</tr>
</tbody>
</table>
Law of Predominance:

All the scholars propose the theory of ‘pancabhoutikata of dravya’. i.e., each drug is made up of five elements namely prithvi, ap, teja, vayu and akasha. Owing to the mutual combination (paraspara samsargaat), mutual cooperation (paraspara anugrahaat) and mutual entry (paraspara anupraveshaat) among bhuta, all the mahabhoota in a dravya remain in close proximity (sanidhya) to each other. Thus, they do not oppose the functioning of each other even though may possess opposite properties. For example, hot nature of agni doesn’t oppose the functioning of cold nature of jala within a substance.

Though all matter of the universe is made of the basic five elements, each has its own identity. Diversity of the drugs in terms of appearance, properties and functions are due to varied proportion of mahabhoota. Each drug consists of a predominant mahabhoota (1/2 part) along with smaller proportions (1/8th part each) of the remaining. Thus, they exhibit more of the properties and functions of predominant mahabhoota. This is technically called as “vyapadeshastu bhuyasa”.

Prithvi Mahabhoota

Parthiva dravya have properties like guru, khara, kathina, manda, vishada, sthoola, sthira, sandra and specific property of gandha. Intake of parthiva dravya has certain effects on the body like bala (strength), upacaya (development), sanghata (compactness), gaurava (heaviness) and sthairya (firmness). During the formation of garbha, it gives samhanana (dridtha – firmness to the body) effect.

Jala mahabhoota

Jaliya dravya are drava, sheeta, guru, snigdha, manda, mridu, pichchila in nature and is specific to rasa. Because of these properties, they act on the body to achieve upakleda (moistening), snehana (unction), bandhana (binding), vishyandana (liquifying), mardava (softening) and pralhada (exhilaration). During garbhotpatti, its action is kledana (providing liquid medium for growth).

Teja mahabhoota

Taijasiya / agneya dravya have properties such as ruksha, teekshna, ushna, vishada, sukshma and laghu. Among the vishesha guna, they are specific to roopa. Thus, they are responsible for producing daha (burning sensation), paka (metabolism), prabha (lustre), prakasha.
(lustre), varna (complexion) in the body\textsuperscript{15}. During the formation of garbha, it does the pacana (helps in maturation)\textsuperscript{16}

**Vayu mahabhoota**

Vayaviya dravya have general properties such as ruksha, vishada, laghu, sheeta, khara and sukshma\textsuperscript{17}. They are specific to sparshaguna. Raukshya (roughness), Glani (fatigue), Vicara (movement), Vaishadya (non-sliminess) and Laghava (lightness) are the effects on the body by the intake of vayaviya dravya\textsuperscript{18}. During garbotpatti, it acts by vibhajana (vibhaga – division)\textsuperscript{19}

**Akasha mahabhoota**

Akashiya dravya are mridu, sukshma, vishada, laghu and shlakshna in nature. Also, they are specific to shabda guna\textsuperscript{20}. Mardava (softening), soushirya (porosity) and laghava (lightness) are their effects on the body\textsuperscript{21}. During the formation of garbha, it acts by vivardhana (kshetравardhana – increasing the space)\textsuperscript{22}

**Application of Pancamahabhoota Theory in Ayurveda Medicine:**

**Application in Preventive Medicine:**

Balance of the five elements, i.e., pancamahabhoota in the body promotes health while their imbalance causes various ailments. Human body undergoes destruction every moment (sheeryata iti shareeram). Thus, to maintain the balance, the body desires for the substances that need to be replenished and vice-versa\textsuperscript{23}. For example, whenever there is decrease of jala mahabhoota in the body due to any cause like excessive sweating, the person starts to feel thirsty. On the contrary, if there is increase of agni mahabhoota in the body, the person gets aversion to ushna veerya dravya. This self-defense mechanism prevents the undue imbalance of each of the element (mahabhoota) in the body.

**Application in Pathology:**

Whenever a person involves in nidana sevana, there is disturbance to the health due to imbalance of five elements in the body. Imbalance can occur either in two ways, either depletion (kshaya) or in excess (vridhi)\textsuperscript{24}. If the cause is not avoided, pathogenesis progresses to develop various ailments as shown below.
Table 2: Diseases developed due to imbalance of mahabhoota composition

<table>
<thead>
<tr>
<th>Mahabhoota</th>
<th>Diseases due to vriddhi</th>
<th>Diseases due to kshaya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prithvi</td>
<td>Urushtambha, Pleehodara, Kandu, Amajirna, Sthoulya</td>
<td>Kshataksheena, Asthimajjagata Vata, Karshya</td>
</tr>
<tr>
<td>Ap</td>
<td>Atisara, Chardi, Jalodara, Shotha, Prameha, Hridroga, Amavata</td>
<td>Trishna, Shosha, Mutrakrucchra, Vibandha, Badhirya</td>
</tr>
<tr>
<td>Teja</td>
<td>Jvara, Bhasmaka, Vidagdhajirna, Visarpa, Raktapitta</td>
<td>Agnimandya, Timira, Pandu, Artavakshaya</td>
</tr>
<tr>
<td>Vayu</td>
<td>Adhmana, Udavarta, Vatavyadhi, Shvasa, Kasa</td>
<td>Moha, Mookatva, Badhirya</td>
</tr>
</tbody>
</table>

Akasha is vibhu in nature. Hence, it cannot undergo vriddhi or kshaya alone. Instead, increase or decrease of other mahabhoota have contrary effect on akashiya bhava in the body.

For eg, formation of granthi in karna reduces akashiya bhava in karna. Decrease of jala mahabhoota in shiras increases akashiya bhava in shiras.

Tridosha siddhanta, which is popularly used for determining hetu-linga and aushadha, is also derived from pancamahabhoota siddhanta. Vayu and akasha mahabhoota constitute vata dosha. Pitta is agneya in nature and kapha is made of prithvi and jala predominance.

Table 3: Drugs responsible for Dosha Vriddhi-Kshaya

<table>
<thead>
<tr>
<th>Dosha</th>
<th>Vriddhikara dravya</th>
<th>Kshayakara dravya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vata</td>
<td>Akasha, Vayu</td>
<td>Prithvi, Teja, Jala</td>
</tr>
<tr>
<td>Pitta</td>
<td>Agneya</td>
<td>Prithvi, Jala, Vayu</td>
</tr>
<tr>
<td>Kapha</td>
<td>Prithvi, Jala</td>
<td>Akasha, Vayu, Agni</td>
</tr>
</tbody>
</table>
Dhatu and mala are termed as *dushya* which get conglomerated with vitiated *dosha* in the pathogenesis. They are also *pancabhoutika* in composition with predominance of few of them.

Table 4: *Dushya* and *Mahabhoota* Composition

<table>
<thead>
<tr>
<th>Dushya</th>
<th>Mahabhoota predominance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rakta</td>
<td>Teja, jala</td>
</tr>
<tr>
<td>Mamsa</td>
<td>Prithvi</td>
</tr>
<tr>
<td>Meda</td>
<td>Jala, prithvi</td>
</tr>
<tr>
<td>Asthi</td>
<td>Prithvi, vayu</td>
</tr>
<tr>
<td>Majja</td>
<td>Shukra, Jala</td>
</tr>
<tr>
<td>Mutra</td>
<td>Jala</td>
</tr>
<tr>
<td>Purisha</td>
<td>Parthiva</td>
</tr>
<tr>
<td>Artava</td>
<td>Agni</td>
</tr>
<tr>
<td>Sveda</td>
<td>Jala</td>
</tr>
<tr>
<td>Stanya</td>
<td>Jala</td>
</tr>
</tbody>
</table>

Thus, assessment of a patient in terms of *dosha-dhatu-mala* and *vridhi-kshaya* is actually indicating the status of *pancamahabhoota* constitution of the body.

**Application in Therapeutics:**

The primary aim of Ayurveda is to attain *dhatusamyata*. Ayurveda explains various treatment methodologies to attain this goal like *bahirparimarjana chikitsa* (external application) and *antarparimarjana chikitsa* (internal medication). Broadly, these treatment modalities act through two ways – *shodhana* and *shamana*. *Shodhana* is the action of the drug where undesirable components of the body are eliminated out.
of the body while shamana acts by palliative effect within the body.

Selection of drugs for shodhana or shamana requires the knowledge of constituent elements of the drugs. Drugs possessing predominance of prithvi and jala mahabhoota are purgative in nature by virtue of guru property. Emetic drugs are laghu in nature with predominance of vayu and agni mahabhoota. Shamana effect is seen when akashiya dravya are used. Vayaviya dravya being shoshanatmaka in property acts as sangrahi. Carminative action is achieved by the use of agneya dravya. If a drug is predominant in vayu and agni, it acts in lekhana. On the contrary, prithvi and ap predominant drug acts as brihmana. Other therapeutic actions of the drugs can be explained in similar way.

Once the drugs are administered, they result in replenishment of diminished element in the body or subsiding excess element. This treatment principle is classically termed as samanya-vishesha siddhanta. For instance, if prithvi mahabhoota is decreased in the body, it needs to be replenished by the drugs having properties like guru, sthira and sthoola. Similarly, jala mahabhoota requires drugs with properties like drava, sheeta, guru and snigdha. These examples depict the principle of samanya. On the contrary, whenever there is excess of mahabhoota in the body, drugs having opposite qualities are used. For instance, increase of vayu in the body is pacified by the use of drugs with snigdha and guru qualities. Similarly, ap mahabhoota is pacified by using the drugs of rooksha, laghu and ushna properties. These examples show the principle of vishesha.

Table 5: Examples of drugs in relation to predominant mahabhoota

<table>
<thead>
<tr>
<th>Drugs</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parthiva</td>
<td>Jeevanti, Madhaparni, Vidarikanda, Masha</td>
</tr>
<tr>
<td>Jaliya</td>
<td>Narikela, Ksheera, Takra, Dadima</td>
</tr>
<tr>
<td>Agneya</td>
<td>Chitraka, Marica, Bhallataka, Haritala</td>
</tr>
<tr>
<td>Vayaviya</td>
<td>Puga, Apamarga, Tamra, Aluka</td>
</tr>
<tr>
<td>Akashiya</td>
<td>Soorana, Tuttha, Madana</td>
</tr>
</tbody>
</table>
A drug can act by various modes. Few drugs may act through *rasa* while some may act through *guna*. Similarly, other drugs can act by either *veerya*, *vipaka* or *prabhava*. These modes of action function through their *mahabhoota* constituency. Thus, each *rasa*, *guna*, *veerya* and *vipaka* is actually depicting the actions of the five elements.

### Table 6: Relation between *rasa*-*guna*-veerya-vipaka and *mahabhoota*

<table>
<thead>
<tr>
<th>Rasa</th>
<th>Predominant Mahabhoota³²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madhura</td>
<td>Prithvi, Jala</td>
</tr>
<tr>
<td>Amla</td>
<td>Agni, Prithvi</td>
</tr>
<tr>
<td>Lavana</td>
<td>Jala, Teja</td>
</tr>
<tr>
<td>Tikta</td>
<td>Akasha, Vayu</td>
</tr>
<tr>
<td>Katu</td>
<td>Agni, Vayu</td>
</tr>
<tr>
<td>Kashaya</td>
<td>Prithvi, Vayu</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guna-Veerya</th>
<th>Predominant Mahabhoota³³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ushna</td>
<td>Teja</td>
</tr>
<tr>
<td>Sheeta</td>
<td>Jala</td>
</tr>
<tr>
<td>Teekshna</td>
<td>Agni</td>
</tr>
<tr>
<td>Picchila</td>
<td>Jala</td>
</tr>
<tr>
<td>Snigdha</td>
<td>Prithvi, Jala</td>
</tr>
<tr>
<td>Mridu</td>
<td>Jala, Akasha</td>
</tr>
<tr>
<td>Ruksha</td>
<td>Vayu</td>
</tr>
<tr>
<td>Vishada</td>
<td>Prithvi, Vayu</td>
</tr>
<tr>
<td>Vipaka</td>
<td>Predominant mahabhoota</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Madhura</td>
<td>Prithvi, jala</td>
</tr>
<tr>
<td>Amla</td>
<td>Agni, Prithvi</td>
</tr>
<tr>
<td>Katu</td>
<td>Agni, Vayu</td>
</tr>
</tbody>
</table>

Sattvavajaya chikitsa plays an important role in avoiding the causative factors of the disease and helping in speedy recovery. This is attained through the action on manasika guna. Mahabhoota also have effect on the manasika guna, namely sattva, rajas and tamas. Akasha mahabhoota is predominant in sattva, vayu is rich in raja guna, agni has predominance of sattva and raja, jala is predominant in sattva and tama qualities and prithvi has tamo bahulyata.

It is clear that the parameters of assessing the patient in terms of dosha-dushya-bala-kaala-sattva and treatment principles explained as rasa pancaka are indicative of mahabhoota constituency in the body. Thus, it can be concluded that pancamahabhoota theory forms the base for other doctrines of Ayurveda.

DISCUSSION

The primary aim of Ayurveda is to promote health and to cure ailments. This is achieved by various techniques like dravyabhoota (requires the use of drugs - yuktiyapashraya) and adravyabhootha (Without any internal medication – daivyapashraya and sattvavajaya) chikitsa. Rationality behind prescription of drugs plays an important role in breaking the pathogenesis (samprapti) at the earliest. In present days, Ayurveda clinicians use the parameters such as dosha, dushya, bala, kaala, etc before planning the line of treatment. But, pancamahabhootha siddhanta forms the primary rational methodology to rectify dhatu vaishamya.

CONCLUSION

A famous quote says, “People without the knowledge of their past history, origin and culture is like a tree without roots.” Thus, it is important for every Ayurveda pupil to know the origin, need and development of various fundamental principles. This helps
in numerous ways like understanding the science and raising various research projects without compromising the basic principles. Hence, an attempt is made to analyze the origin of *pancamahabhoota* theory retrospectively and various other principles derived from this doctrine are briefed in this work from clinical application point of view.

Acknowledgement: Nil

Financial Assistant: Nil

Conflict of interest: Nil
REFERENCES


