



## Review Article

### PRAKRITI ANALYSIS AND ITS CLINICAL SIGNIFICANCE

Bilal Ahmad Wani<sup>1\*</sup>, Sisir Kumar Mandal<sup>2</sup>, Pawankumar Godatwar<sup>3</sup>

<sup>1</sup>M.D. Scholar, <sup>2</sup>Assistant Professor, <sup>3</sup>Associate Professor and Head, P.G. Department of Roga Nidana Evam Vikriti Vigyana, National Institute of Ayurveda, Jaipur, India.

#### ABSTRACT

*Prakriti* is defined as the state of an individual in its natural form. Ayurveda classifies people on the basis of *Prakriti* as every person is supposed to have a fixed *Prakriti* that is formulated by the condition of *Tridosha* at the time of union of sperm and ovum inside the uterus. Predominance of any one, two, or all the three *Dosha* (body humors- *Vata*, *Pitta* and *Kapha*) determines the *Prakriti* of an individual. So *Prakriti* refers to genetically determined anatomical, physiological and psychological constitution of an individual. *Prakriti* also determines the response of an individual to environmental factors, drugs and susceptibility to diseases making it one of the earliest known concepts of preventive and personalized or genomic medicine. Opposite to the *Prakriti* is *Vikriti* which means diseased state of an individual. Until the normal is not known, abnormality cannot be found, so *Prakriti* plays an important role in determining *Vikriti*. *Acharya Charaka* has mentioned *Dashavidha Pariksha* in which *Prakriti* analysis is done first and *Vikriti* analysis next to understand the nature and severity of disease, reaction of body to the drugs (pharmacogenomics), selection of drugs and their doses, prognosis of the disease and preventive measures such as diet, diurnal and seasonal regimes. So *Prakriti* emphasizes on the individuality and plays an important role in diagnosis, preventive medicine, and therapeutics.

**KEYWORDS:** *Prakriti*, *Vikriti*, *Dashavidha Pariksha*, *Dosha*, Genomic medicine, Pharmacogenomics.

#### INTRODUCTION

The term *Prakriti* is derived from two Sanskrit words 'Pra' and 'Kri'. 'Pra' means 'First' and the 'Kri' means 'Creation'. So *Prakriti* is termed as the 'first creation'. The term *Prakriti* also means 'nature' or state of an individual in its natural form.

Ayurveda considers *Panchamahabhuta* (*Aakasha*, *Vayu*, *Teja*, *Jala* and *Prithvi*) to be the basic constituents of this physical universe including the human body. These *Mahabhuta* manifests into *Tridosha* (*Vata*, *Pitta* and *Kapha*). Though all three *Dosha* exist in every human being, one is dominant based on which an individual's *Prakriti* is determined. *Prakriti* are discrete phenotypes and they are determined on the basis of physical, psychological, physiological and behavioral traits, and are independent of social, ethnic and geographical variables.<sup>[1,2]</sup>

*Prakriti* of human being depends on genetic and acquired factors. The genetic constitution depends upon *Shukra* (sperm) and *Shonita* (ovum), while acquired constitution depends on environmental factors like age, race, heredity, climate, season, and region.

*Prakriti* is an important concept of Ayurveda that explains individuality. It expresses unique trait of an

individual that is defined by specific and permanent composition of *Dosha* right from birth. *Prakriti* makes every person unique therefore no two persons can be exactly identical. Anatomical, physiological and psychological characteristics differ from one person to other person depending on his/her *Prakriti*. *Prakriti* remains constant for each individual throughout his/her lifetime.

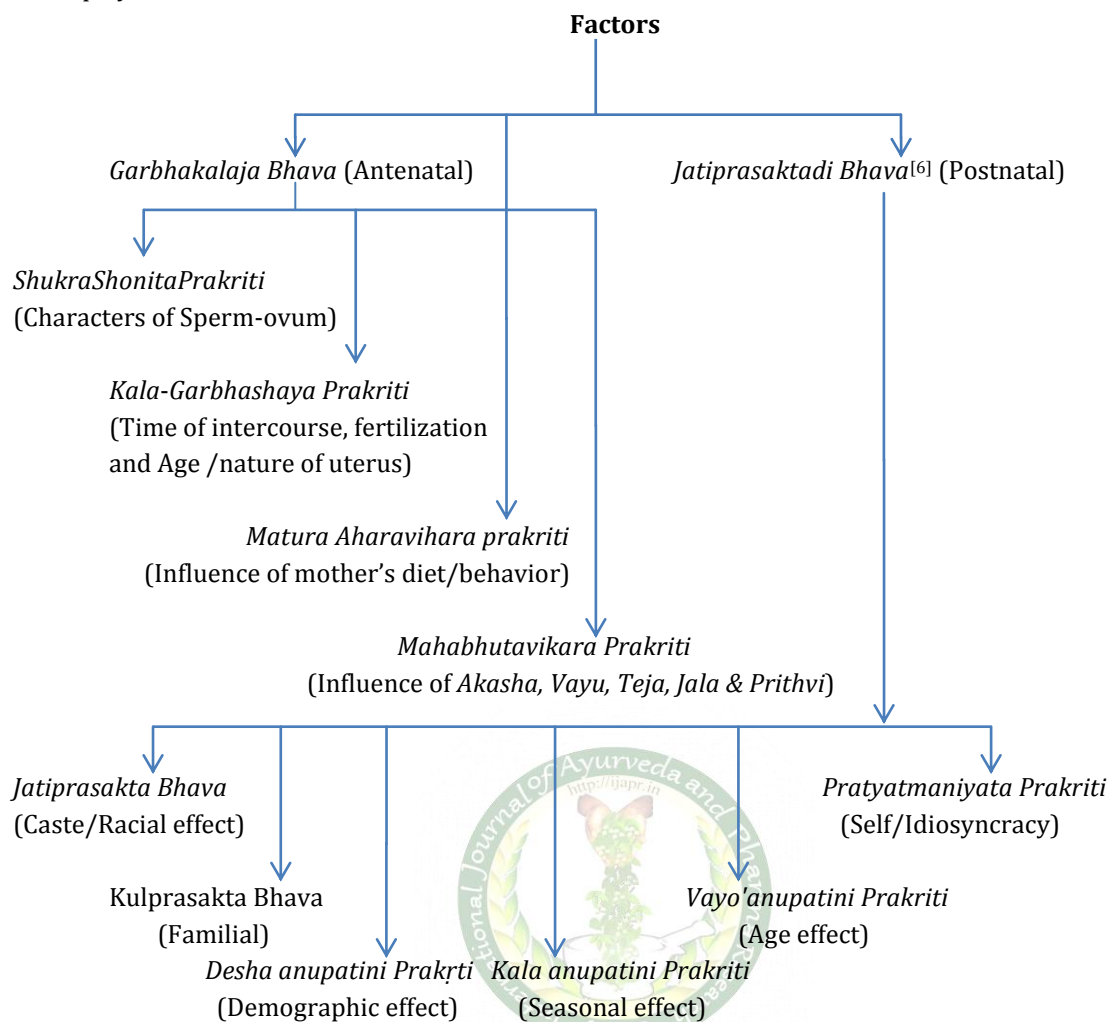
#### *Prakriti* formation of an individual

According to *Acharya Sushruta*, formation of *Prakriti* takes place by the condition of *Tridosha* at the time of union of *Shukra* (sperm) and *Shonita* (ovum) in the *Garbhashaya* (womb) of mother. Predominance of any one, two, or all the three *Dosha* (body humors- *Vata*, *Pitta* and *Kapha*) determines the characteristics features of the future child as *Ekadoshaja Prakriti* (*Vataja*, *Pittaja* and *Kaphaja*), *Dvandvaja* (*Vatapitta*, *Vatakapha*, *Kaphapitta*), and *Samamishra* (*Vata*, *Pitta* and *Kapha* in equal proportions).<sup>[3]</sup>

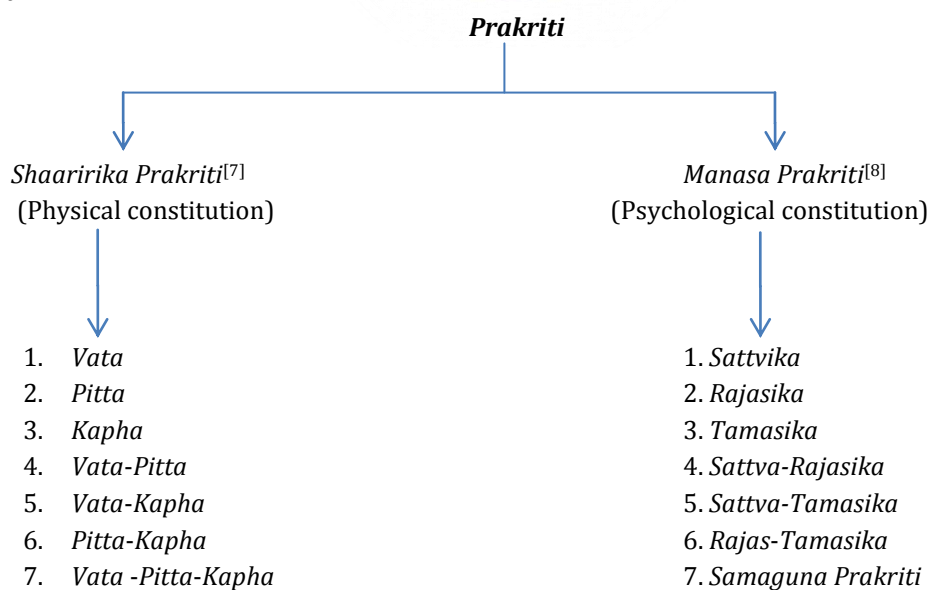
According to *Acharya Charaka Panchamahabhuta* and *Chetana* (soul) unite to form *Purusha* and the nature of this *Sharira* is known as *Prakriti*.<sup>[4]</sup>

**Factors affecting formation of Prakriti<sup>[5]</sup>**

Factors which play direct or indirect role in the formation of *Prakriti* are as-



**Types of Prakriti-**



**Characteristics of Shaaririka Prakriti<sup>[9]</sup>****1. Features of Vata Prakriti**

Attributes	Manifestations
<i>Ruksha</i> (Dry)	Ununctuous, emaciation, and dwarfness of the body; long drawn, dry low broken obstructed and hoarse voice; always keeping awake.
<i>Laghu</i> (Light)	Light and inconsistent gait, action, food and movement.
<i>Chala</i> (Mobile)	Unstable joints, eyes, eyebrows, jaws, lips, tongue, head, shoulder, hands and legs
<i>Bahu</i> (Abundance)	Talkativeness, abundance in tendons and veins
<i>Shighra</i> (Swift)	Quick in initiating actions, getting irritated and the onset of morbid manifestations, quick in affliction with fear, quick in likes and dislikes, quick in understanding and forgetting things.
<i>Shita</i> (Cold)	Intolerance for cold things; often getting afflicted with cold, shivering, and stiffness.
<i>Parusha</i> (Rough)	Roughness in the hair of the head, face and other parts of the body; nails, teeth, face, hands, and feet.
<i>Viashada</i> (Non-Slime)	Cracking of limbs and organs, production of cracking sound in joints when they move.
These persons are endowed with lesser quantity of strength, span of life, procreation, accessories of life and wealth.	

**2. Features of Pitta Prakriti**

Attributes	Manifestations
<i>Ushna</i> (Hot)	Intolerance for hot things, having hot face, tender body of port-wine mark, freckles, black moles, excessive hunger and thirst; quick advent of wrinkles; graying of hair and baldness, presence of some soft and brown hair on the face, head, and other parts of the body.
<i>Tikshana</i> (Sharp)	Sharp physical strength, strong digestive power, intake of food and drink in large quantity; inability to face difficult situations and glutton habits.
<i>Drava</i> (Liquid)	Looseness and softness of joints and muscles; voiding of sweat, urine and feces in large quantity.
<i>Visra</i> (Foul smell)	Putrid smell of axilla, mouth, head and body in excess.
<i>Amla/Katu</i> (Pungent/Bitter)	Insufficiency of semen, sexual desire and procreation.
These persons are endowed with moderate strength, moderate span of life, moderate spiritual and materialistic knowledge, wealth and the accessories of life.	

**3. Features of Kapha Prakriti**

Attributes	Manifestations
<i>Snigdha</i> (Unctuous)	Unctuousness of organs
<i>Shlakshna</i> (Smooth)	Smoothness of organs
<i>Mridu</i> (Soft)	Pleasing appearance, tenderness and clarity of complexion
<i>Madhura</i> (Sweet)	Increase in the quantity of semen, desire for sex-act, and number of procreation.
<i>Sara</i> (Firm)	Firmness, compactness and stability of the body.
<i>Sandra</i> (Dense)	Plumpness and roundness of all organs.
<i>Manda</i> (Slow)	Slow in action, intake of food and movement
<i>Guru</i> (Heavy)	Non-slippery and stable gait with the entire sole of the feet pressing against the earth
<i>Stimita</i> (Stable)	Slowness in initiating actions, getting irritated and morbid manifestations
<i>Shita</i> (Cold)	Lack of intensity in hunger, thirst, heat, and perspiration
<i>Vijjala</i> (Viscous)	Firmness and compactness in joints
<i>Accha</i> (Clear)	Happiness in the look and face; happiness and softness of complexion and voice.
These persons are endowed with the excellence of strength, wealth, knowledge, energy, peace and longevity.	

**4. Features of Dvandvaja Prakriti**

The two *Dosha prakriti* are characterized by the combination of the manifestation of respective *Dosha*.

**5. Features of Sama Prakriti**

*Samadhatu Prakriti* is characterized by combination of the manifestation of all the *Dosha* in a state of equilibrium. These persons are endowed with the qualities of all the three single *Dosha Prakriti*.

**Importance of Prakriti**

**1) Promotion of Health:** Ayurveda encourages a person to take foods & indulge in those activities which are opposite to his/her *Prakriti* to live a healthy life style. The rejuvenative therapies like *Rasayana* and *Vajikarana* benefit most when they are administered according to one's *Prakriti*.

2) **Agni status of individual:** Acharya Charaka has mentioned four types of Agni (Digestive fire) according to one's Prakriti.<sup>[10]</sup>

- Vishmagni (Disturbed) in Vata Prakriti
- Tikshnagni (Increased) in Pitta Prakriti
- Mandagni (Decreased) in Kapha Prakriti
- Samagni (Normal) in Samadosha Prakriti

3) **Determination the Bala (Strength)-** The Comparative strength of different individuals can be decided by the type of Prakriti. The Kapha Prakriti persons are stronger than Pitta and Vata Prakriti persons. Determination of strength is important while treating a person.

4) **Susceptibility to disease/Predictive Medicine:** Each Prakriti type is prone to specific diseases. Prakriti determines proneness of an individual for Dosh specific diseases. For example, Kapha Prakriti persons are more prone to Kaphaja vikara like Agnimandhya, Pratishyaya, Medoroga, Prameha etc. similarly Vata Prakriti persons are more prone to Gulma, Aatopa, Sandhigatavata etc and Pittaja Prakriti persons are more prone to diseases like Amlapitta, Pandu, Kaamla, Raktapitta etc.<sup>[11]</sup>

The various observations show that there is more susceptibility of Vata Prakriti individuals to anxiety neurosis, thyrotoxicosis and tuberculosis, Pitta Prakriti individuals to hypertension, peptic ulcer, bronchial asthma and rheumatoid arthritis and Kapha Prakriti individuals to diabetes mellitus, obesity, hypertension and ischemic heart diseases.<sup>[12]</sup>

Vataja, Pittaja and Kaphaja diseases are a little difficult to treat in persons belonging to Vata, Pitta and Kapha Prakriti respectively. In view of this fact, the different diseases to which an individual is predisposed can be predicted timely and may be prevented or postponed by appropriate diet, drugs or regimen.

5) **Diagnosis of diseases:** Dashvidhpariksa has been mentioned by Acharya Charaka while diagnosing the strength of the diseased person. Prakriti analysis is first one to be done while examining a patient.

6) **Prognosis of diseases:** If the causative Dosh of an ailment is same as the Prakriti of the diseased person, the disease becomes Krichrasadhya i.e. difficult to cure. Similarly if the vitiated Dosh is different from one's Prakriti, it is very easy to treat.

7) **Management of diseases/ Individualized Medicine**

Acharya Charaka has mentioned 'Prati Purusha siddhanta' considering one's Prakriti and other factors specific to the diseased person while treating his/her ailment. The knowledge of Prakriti helps in drawing a line of treatment for diseased person. E.g. In Amajavyadhi like Jvara, for Kaphaja person one can adopt complete Apatarpana Chikitsa whereas in case of Vataja person that cannot be adopted completely.<sup>[13]</sup>

8) **Determination of Drug doses** - The dose of the medicine is decided according to one's Prakriti. In general the Alpa (minimum), Madhya (moderate) and Pravara (maximum) dose of medicine are adopted in

Vata, Pitta and Kapha Prakriti individuals respectively.<sup>[14]</sup>

9) **Preventive Medicine-**In Ayurveda Dinacharya (Diurnal regime) and Ritucharya (Seasonal regimes) have been advised on the basis of Prakriti. The person can adopt these regimes as per need of Prakriti to keep body healthy and Dosha in equilibrium state. For example Kapha Prakriti persons need more exercise, Laghuahara to keep their body fit and they should avoid Divasvapna, whereas Vata Prakriti persons are advised to take nutritious and heavy food, do less exercise and can do Divasvapna.

Ayurveda advocates extensive preventive measures in terms of Sadvrita Svasthavrita, Dinacharya, Ritucharya etc. By determining the Prakriti of every individual, their health can be maintained by advocating them Pathya Ahara (Favorable foods and drinks) and Vihara (behavior and physical activities) and simultaneously restricting them to take Apathya Ahara (Unfavorable food and drinks) and Vihara (Behavior and physical activities).

10) **Genomic Medicine-**The concept of Prakriti and its relationship with genomics was hypothesized over a decade ago.<sup>[16]</sup> Subsequent studies have attempted to correlate Prakriti classification with genetic information and association of single nucleotide polymorphisms (SNPs) in HLA DRB1<sup>[17]</sup> CYP2C19,<sup>[18]</sup> EGLN1,<sup>[19]</sup> inflammatory and oxidative stress related genes,<sup>[20]</sup> CD markers for various blood cells,<sup>[21]</sup> DNA methylation alterations<sup>[22]</sup> and risk factors of cardiovascular or inflammatory diseases have been reported.<sup>[23]</sup>

A preliminary study suggests that the Prakriti classification, as a foundation for the practice of Ayurveda, has a genetic basis and does provide clues for further studies.<sup>[24]</sup>

## CONCLUSION

Prakriti is an important concept in Ayurveda to understand the nature and severity of disease, reaction of body to the drugs (pharmacogenomics), selection of drugs and their doses, prognosis of the disease and preventive measures such as diet, diurnal and seasonal regimes. Prakriti also determines the response of an individual to environmental factors, drugs and susceptibility to diseases making it one of the earliest known concepts of predictive, preventive and personalized or genomic medicine. So Prakriti emphasizes on the individuality and plays an important role in diagnosis, preventive medicine, and therapeutics.

## REFERENCES

1. Sharma, P. V. Charaka Samhita, Chaukhamba Orientalia, Varanasi, India, (1994).
2. Dwarakanath, C. The Fundamental Principles of Ayurveda. (Krishnadas Academy, Varanasi, India, 1952).
3. Sushruta, Sushruta Samhita with Nimandhasamgraha Commentaryon Dalhan edited by Trivikram Yadavji, Chaukhambha orientalia, Varanasi, Sharirasthana Chapter 4 verse 62.

4. Charak, Charak-Samhita, with Chakrapanidatta commentary, Chaukhambha Sanskrita Sansthan, Varanasi, Sharirasthana Chapter 1 verse 16.
5. Charak, Charak-Samhita, with Chakrapanidatta commentary, Chaukhambha Sanskrita Sansthan, Varanasi, Vimanasthana Chapter 8 verse 95.
6. Charak, Charak-Samhita, with Chakrapanidatta commentary, Chaukhambha Sanskrita Sansthan, Varanasi, Indriyasthana Chapter 1 verse 5.
7. Charak-Samhita, with Chakrapanidatta commentary, Chaukhambha Sanskrita Sansthan, Varanasi, Vimanasthana Chapter 8 verse 95.
8. Vridha Vagbhat, Aṣṭāṅga Samgraha with Shashilekha Commentary by Indu, edited by Dr. Shivprasad Sharma, Chaukhambha Sanskrit Sansthan, Varanasi, Sharirasthana Chapter 8 verse 16.
9. Charak, Charak-Samhita, with Chakrapanidatta commentary, Chaukhambha Sanskrita Sansthan, Varanasi, Vimanasthana Chapter 8 verses 96-100.
10. Charak, Charak-Samhita, with Chakrapanidatta commentary, Chaukhambha Sanskrita Sansthan, Varanasi, Vimanasthana Chapter 6 verse 12.
11. Ghodke Y, Joshi K, Patwardhan B, Traditional Medicine to Modern Pharmacogenomics: Ayurveda Prakriti Type and CYP2C19 Gene Polymorphism Associated with the Metabolic Variability, 2009;1-5. Available from: <http://www.ecam.oxfordjournals.org> [Last cited on 2009 Sep 11].
12. Lazarou J, Pomeranz BH, Corey PN. Incidence of adverse drug reactions in hospitalized patients: A meta-analysis of prospective studies. JAMA 1998;279:1200-5.
13. Spear BB, Heath-Chiozzi M, Huff J, Clinical application of pharmacogenetics. Trends Mol Med 2001;7:201-4.
14. Ozdemir V, Shear NH, Kalow W. What will be the role of pharmacogenetics in evaluation of drug safety and minimizing adverse effects? Drug Saf 2001;24:75-85.
15. Olivier C, Williams-Jones B, Godard B, Mikalson B, Ozdemir V. 'Personalized medicine, bioethics and social responsibilities: Re-thinking the pharmaceutical industry to remedy inequities in patient care and international health'. Curr Pharm Pers Med 2008; 6:108-20.
16. Patwardhan, B. Ayu Genomics-Integration for customized medicine. Indian J. Nat. Prod. Resour. 19, 16-23 (2003).
17. Bhushan, P., Kalpana, J. & Arvind, C. Classification of human population based on HLA gene polymorphism and the concept of Prakriti in Ayurveda. J. Altern. Complement Med. 11, 349-353 (2005)
18. Ghodke, Y., Joshi, K. & Patwardhan, B. Traditional Medicine to Modern Pharmacogenomics: Ayurveda Prakriti Type and CYP2C19 Gene Polymorphism Associated with the Metabolic Variability. Evid. Based Complement. Alternat. Med. 2011, 249528 (2011)
19. Aggarwal, S. et al. EGLN1 involvement in high-altitude adaptation revealed through genetic analysis of extreme constitution types defined in Ayurveda. Proc. Natl. Acad. Sci. 107, 18961-18966 (2010).
20. Juyal, R. C. et al. Potential of ayurgenomics approach in complex trait research: leads from a pilot study on rheumatoid arthritis. PloS one. 7, e45752 (2012).
21. Rotti, H. et al. Immunophenotyping of normal individuals classified on the basis of human dosha Prakriti. J. Ayurveda Integr. Med. 5, 43-49 (2014).
22. Rotti, H. et al. DNA methylation analysis of phenotype specific stratified Indian population. J. Transl. Med. 13, 151 (2015).
23. Mahalle, N. P., Kulkarni, M. V., Pendse, N. M. & Naik, S. S. Association of constitutional type of Ayurveda with cardiovascular risk factors, inflammatory markers and insulin resistance. J. Ayurveda Integr. Med. 3, 150-157 (2012)
24. Govindaraj, P. et al. Genome-wide analysis correlates Ayurveda Prakriti. Sci. Rep. 5, 15786; doi: 10.1038/srep15786 (2015).

**Cite this article as:**

Bilal Ahmad Wani, Sisir Kumar Mandal, Pawankumar Godatwar. Prakriti Analysis and its Clinical Significance. International Journal of Ayurveda and Pharma Research. 2017;5(8):86-90.

**Source of support: Nil, Conflict of interest: None Declared**

**\*Address for correspondence**

**Dr Bilal Ahmad Wani**

M.D. Scholar,

P.G. Department of Roga Nidana Evam Vikriti Vigyana, National Institute of Ayurveda, Jaipur, India.

Email: [wanisahl98@gmail.com](mailto:wanisahl98@gmail.com)

Mobile no. 09018027930.

Disclaimer: IJAPR is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJAPR editor or editorial board members.