



ROLE OF PRAKRUTI IN CLINICAL DIGNOSIS

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ABSTRACT-

Prakruti is unique psychosomatic temperament of an individual, encompassing his or her physical, functional and behavioral characteristics. *Ayurveda* has also explained the food and lifestyle as per individual constitution including the factors which aggravate and pacify *doshas*: *Prakriti*, thus refers to genetically determined physical and mental constitution of an individual. Every person has his/her own unique constitution which determines the biological functions, response to environmental factors, drugs and also susceptibility to diseases making it one of the earliest known concepts of preventive and personalized medicine.

Key words: Prakruti ,Tridosh ,Health ,Disease

Introduction

In above quotation Acharya said that *Prakriti* remains unchanged since birth to the death that is *Doshik* constitution(predominance) which was present from birth is same for ones throughout life.Acharya *Sushruta* told that *Prakriti* was decided at the time of union of male & female gametes that is fertilization or conception. For example, at the time of birth if, *Vatadosha* is predominant (quantitatively & qualitatively) compared to *Pitta* and *Kapha*, then we call the individual having *VatajaPrakriti*. Predominant *VataDosha* affects anatomy, physiology, psychology and immunity of that person. Features are seen according to properties and functions of *VataDosha*.

According to one of the references in Veda, the word Prakruti is related to consciousness (Svadhaya BrahmanI creation). The literary meaning of the word Prakruti is 'natural condition or state of anything in its natural form'. It is opposite of 'Vikruti' which indicates

change or effect. To come to one's senses or to retain one's consciousness is indicated by term "Prakrutimapad". Another meaning of Prakruti is nature (as distinguished from 'Purusha'). According to Sankhya philosophy, it is mother of all nature and is responsible for creation. It is also called as coefficient or multiplier. There are many other meaning of the word Prakruti in Indian Philosophy. Many references are also available in Veda. In Ayurvedic Medicine, the term 'Prakruti' indicates natural disposition, temper, temperament, nature or constitution. It is also an indicator of natural character, make, form or figure. In Ayurved 'Prakruti' is indicated as one's constitution dependent on once prominent Dosha at the time of conception.

MATERIAL AND METHODS-

The word prakruti means 'nature' and this reflects the natural state of human beings an anatomical, physiological, and psychological level ¹. In Ayurveda, no two people are alike, or we can say that every person is born with a definite genetic constitution. This is vital in determining our body type, behavior patterns, needs, and our predispositions. Prakruti knowledge is most essential for selection of a drug. The individual can be given suggestions regarding diet & life style during disease as well as during health for maintaining optimal health. Every case presentation will be incomplete if 'Prakruti vinishchaya' is not made. Thus Prakruti plays a vital role in preventive aspect.

There are three forms of energy that work as a team in the body, like executives of an organization. There is certain relation between parents and inborn child in blood grouping. The hereditary gene is directly concerned with the inborn child's metabolic pattern too. The inborn metabolic pattern of an individual is the continuation of metabolic pattern of the parents. So this relation according to modern discovery is due to gene ². But around thousands of years ago no word called "gene" was used. In fact the Father's character [pitruj bhav] and mother's character [matruj bhav] refer to gene xx and xy, it is not so direct but pointing towards these genes. Still re-discovery of it is not there in modern techniques.³ Some questions are still unanswered, why someone is successful, rich, poor and variation in their life? Is this also inborn character that one gets success every time? No answer but Philosophy in Ayurveda is trying to show path for the answers.

Prakruti Vinishchaya (Prakruti analysis) is an important part of Ayurveda as there is no other contemporary science that emphasizes on Prakruti analysis. By definition, Prakruti of a person is the predominance of a dosha at the time of conception. This predominance of dosha takes its effect on the development of the fetus and gives the impression of the body by which, in due course, the individual is identified. The Prakruti of a person could be defined as individual trait and is thus unique to that individual. There are two aspects of Prakruti, (1) genotype and (2) phenotype.

Sama Prakruti (all balanced) people are best of all, as per this system, three mutually reciprocal mechanisms known as namely, vata, pitta and kapha are responsible for the maintenance of homeostasis, and thus, the health ⁴

BENEFITS OF PRAKRUTI VINISHACHYA-**1] Preventive and promotive health care according Prakriti-**

A person is able to prevent various disorders from developing and is also able to promote his health by knowledge of his/her prakruti. It helps in analyzing and observing dietary habits, lifestyles, daily and seasonal regimens etc. Ayurveda also prescribes various foods and lifestyles according to one's prakruti and suggests that one should follow these guidelines to prevent various disorders and to promote health ⁵.

2] Diagnosis of the diseases according Prakriti-

The analysis of prakruti is very important to diagnose the underlying disorders and to treat that patient. By observing the prakruti, diagnosis of a particular disease becomes more simple, as it not only provides an idea about the vitiated Dosha but also provides the treatment principles for that person.

3] Role of Prakruti in the management of disease-

Treatment is dependent on the acceptability of body to medications. By determining prakruti it shows that which types of herbs, diets, and lifestyles will help in the treatment of that person. With the help of prakruti vinischay, we can assess the patient very well for his physical and mental strength, appetite, likes and dislikes and his adaptability to food and medicines.

There are distinct properties of each *dosha*. The main properties of *Vata dosha* are – dry, cold, light, subtle, clear, rough, astringent taste, responsible for movements and catabolic in nature. *Pitta dosha* possesses properties of hot, unctuous, sharp, liquid, spreading, sour-pungent-bitter taste, responsible for digestion and metabolism, *Kapha dosha* possesses the qualities of cold, heavy, soft, oily, stable, slimy, sweet taste and anabolic in nature ⁵

There are seven types of physical *prakriti* viz., *Vata*, *pitta*, *kapha*, *vata-pitta*, *pitta-kapha*, *kapha-vata* and *tridosha prakriti* – (combination of all three *doshas* *vata*, *pitta-kapha* in equal proportions), and three broad types of mental constitution viz., *satwa*, *rajas* and *tamas prakriti* ⁷ Even though, Ayurvedic texts have explained the characteristic features of all seven types of physical and three types of mental constitution, only three main types of *Prakriti* viz., *Vata* predominant, *Pitta* predominant and *Kapha* predominant constitution are usually taken for the examination of a person/patient. Ayurveda system primarily aims at treating the cause of the disease (and not just the symptoms) by identifying the imbalance of the *Tridoshas* ⁸

Table no.1:- Common lifestyle diseases and type of *Prakriti* most prone for some disorders:

Sr.	Lifestyle disorder	Correlated Ayurvedic condition	Most prone <i>Prakriti</i>
1	Atherosclerosis	<i>Dhamanipraticaya</i>	<i>Kapha</i> and <i>Vata</i>
2	Alzheimer's disease	<i>Smriti Bhransha</i>	<i>Kapha</i> and <i>Vata</i>
3	Some types of cancer	<i>Granthi</i> and <i>Arbuda</i>	<i>Kapha</i>
4	Asthma	<i>Shwasa</i>	<i>Kapha</i>
5	Liver cirrhosis	<i>Kamala</i>	<i>Vata</i> and <i>Pitta</i>
6	Type 2 diabetes	<i>Prameha</i>	<i>Kapha</i> and <i>Vata</i>
7	Chronic obstructive pulmonary disease	<i>Shwasa Roga</i>	<i>Kapha</i>
8	Heart disease	<i>Hridaya Roga</i>	<i>Kapha</i> and <i>Pitta</i>
9	Metabolic syndrome	<i>Agnimandya</i> , <i>Aruchi</i> , <i>Amlapitta</i> , and <i>Grahani</i>	<i>Kapha</i> and <i>Pitta</i>
10	Chronic renal failure	<i>Mutra Roga</i>	<i>Kapha</i> and <i>Vata</i>
11	Osteoporosis	<i>Asthisushirata</i>	<i>Vata</i> and <i>Pitta</i>
12	Obesity	<i>Sthoulya</i>	<i>Kapha</i>
13	Depression	<i>Avasada</i>	<i>Vata</i> and <i>Pitta</i>

Sedentary lifestyle is one of the distinctive features of urbanization, development and progress. Almost all inhabitants of cities are engaged in occupations that require little physical activity and most don't even permit much time to engage in any physical activity. This is a

huge contributing factor responsible for malfunctioning of *Dosha* (especially in *Kapha* and *Pitta Prakriti*) and thereby increased risk of lifestyle diseases and chronic conditions like hypertension, high cholesterol and it can subsequently lead to problems with obesity, heart disease, diabetes, strokes, and so on. It can also increase levels of stress and anxiety and raise the risk of suffering from various other health conditions.⁹ Persons having *Kapha Prakriti* are more prone to hyperlipidemic disorders as *Kapha* has similar characteristics to that of fatty and lipid tissues. Obesity has become one of the greatest problems for modern society as it greatly increases the risk of numerous health conditions from diabetes and hypertension to sleep apnea, osteoarthritis, lower back pain and gallbladder disease.¹⁰

Vata has similar characteristics which can be compared with psychosomatic functions. Therefore *Vata Prakriti* is considered to be more prone to malnutrition and stress related disorders. Stress doesn't just affect us emotionally or mentally, it also has a clear physical effect as it aggravates and increases the risk of conditions like obesity, cardiac disease, diabetes, asthma, Alzheimer's disease, rapid aging and gastrointestinal problems. Stress and anxiety can also affect one's ability to relax and get proper sleep, contributing to a further deterioration in health and a host of other problems. Chronic depression poses even greater risks to one's health and this problem often goes hand in hand with other unhealthy habits like comfort eating, which contributes to the problem of unhealthy eating, as well as a lack of physical activity.¹¹

Sleep is one of the vital factor related with maintaining normal functioning of *Dosha*. It is understood from the classical information that sleep upto 8 hours and day time sleeping is good for *Vata Prakriti*, however day time sleeping is not recommended for *Kapha* and *Pitta Prakriti*. Maximum 6 hours sleep is sufficient in *Kapha* and *Pitta Prakriti*. Sleep is one of the most neglected requirements for human health and well-being. Several studies have clearly indicated the importance of sleep in terms of both quantity and quality for general health as it affects various metabolic, endocrine and neurological functions of the body. Sleep deprivation, whether through a lack of sufficient sleep or interrupted and poor quality sleep significantly imbalances normal functioning of *Doshas* and increases the risk of hypertension, heart disease, elevated cholesterol and triglyceride levels, obesity, sleep apnea and a number of other health conditions. Smoking and alcoholism are the factors which affect normal functioning of *Dosha* in *Vata* and *Pitta Prakriti*. Smoking is one of the biggest public health problems because of the high risk it poses. Smoking is associated with various lifestyle diseases such as numerous respiratory disorders like bronchitis and asthma, lung cancer, oral cancer and other cancers, cardiovascular diseases, strokes and numerous other health conditions.

Since *Prakriti* is related to certain physical and mental tendencies that determine susceptibility to diseases, the ancient texts of Ayurveda also provide guidelines for maintaining lifestyles in accordance with one's *Prakriti* for continued healthy living in a personalized manner.¹² Although numerous publications exist in all the above mentioned topics, on assessing the present literature we felt the need for synthesizing the current state of evidence regarding Ayurvedic *Prakriti*, its relation to metabolism, chronic disease, and genotypes, and the future direction. In this review we have attempted to correlate evidence with regards to the relation of *Prakriti* with metabolism, chronic disease and genotypes known so far. We also take this knowledge further to predict a future where it will be possible

to screen newborns using their genotype and thus determine their *Prakriti*, which can then help us decide the type of most healthy and suitable lifestyle for such newborns to lead a disease free and productive life. This will be a novel step towards personalized preventive medicine for humans.

Vata, *Pitta*, and *Kapha Prakriti* are found to have unique metabolic activities. According to Ayurveda, *Kapha* is slow, *Pitta* is fast, and *Vata* is considered to have variable metabolism. Various studies have tried to establish correlation between specific *Prakriti* types and different metabolic activities occurring in the body. Recently, a study reported that body mass index (BMI) in *Vata-Pitta Prakriti* was significantly less as compared to *Kapha-Pitta Prakriti* and the *Vata-Pitta Prakriti* individuals were found to be having maximum platelet aggregation.¹³ One of the associations of *Tridoshas* has been hypothesized by Hankey (2005) in which it was suggested that the peptide coenzyme A, which occurs in all cells across all species preserved through evolution and is associated with lipid metabolism, is linked with the *Tridoshas* at the cellular level.¹⁴ One more study describes the concept of *Prakriti* in aging stating that the *Pitta* predominance *Prakriti* type individuals have high basal metabolic rate (BMR) and energy consumption leading to tissue destruction and premature aging and average life span, while *kapha* predominance *Prakriti* type have a tendency to delayed manifestation of aging and longer life span.¹⁵

A research study demonstrated probable genomic basis for metabolic differences attributed by *Prakriti* and concluded that *Pitta Prakriti* are fast metabolizers and *kapha* ones are slow and are influenced by different doses of CYP2C19 substrates.¹⁶ Thus it was apparent from this study that fast and slow metabolism was one of the major differentiating phenomena with respect to correlations between CYP2C19 genotypes and *Prakriti*. Another research work explained connection between Ayurveda *Tridosha* system with psychological and endocrinological components of a human being and suggests possible biomarkers related to the three body types.¹⁷ According to this research work, the genopsyo-somatotyping of humans as comprised by the *Tridosha* theory of Ayurveda is mediated by certain nuclear receptors; mainly those related to androgen, T-cells, and thyroxine which are related to *Pitta* (mesomorphic or andrus), *Kapha* (endomorph or thymus), and *Vata* (ectomorph or thyrus), respectively.¹⁸

Prakriti or a person's constitution of his/her *Tridoshas* also has a clear link to the susceptibility one has for chronic diseases. Based on the properties of the three body types, the predominance of *Kapha* body types for gaining weight is quite well known.¹⁹ This propensity to gain weight and for obesity is in turn linked with a number of chronic lifestyle diseases such as heart disease, hypertension, and diabetes; all of which are increasingly viewed collectively as metabolic syndrome. Similarly looking at the properties of *Pitta* body type it can be predicted that such individuals can have a propensity to develop ulcers, bleeding disorders, and skin disorders more common.²⁰ *Vata* body types can have propensity to develop neurological problems, dementia, movement and speech disorders, arrhythmias, and related chronic diseases as well.²¹ However, of the three body types, classical texts suggest that *Vata* type individuals will have maximum propensity for chronic lifestyle related disease.²²

A recent study have discovered *Vata-Kapha* body type is significantly correlated with diabetes mellitus, hypertension, and dyslipidemia with highest levels of inflammatory markers such as IL6, TNF alpha, hsCRP, and HOMA IR. These inflammatory markers were also found to be higher in *Kapha* body type.²³ Thus; the patterns of association that might be expected from Ayurvedic *Prakriti* theory have been shown to have clear links with certain chronic disease conditions. In addition to obesity and related disorders of heart, blood pressure, and diabetes; *Doshas* have been linked to other types of chronic disease as well such as rheumatoid arthritis (RA).²⁴ Juyal *et al.*, (2012) discovered that inflammatory genes were more associated with *Vata* subgroup of patients, while oxidative stress pathway genes were more observed in *Pitta* and to some extent *Kapha* subgroup. This study delineated the fact that there were discreet pathways for the same disease for RA etiology in different *Prakriti*-based subgroups which according to them took us closer to validating concepts of *Prakriti* and personalized medicine as defined by Ayurveda.²⁵

Links of *Prakriti* has also been made with aging and cancer. 2011 one paper was published and outlined the fact that the aging process was associated with the *Prakriti* of an individual with the *Pitta* predominant individuals supported by *Vata* being prone to premature aging since they have increased BMR and this tends to destroy the tissues faster compared to the other two *Doshas*.²⁶ In another article, it was inferred that cancer patients had primarily *Pitta* dominance followed by *Kapha* dominance compared to normal controls.²⁷ *Vata* is associated with bone, *Pitta* with blood, while *Kapha* is associated with other tissues related to structure and storage such as adipose tissue. As such, it is difficult to treat when people with *Vata Prakriti* develop bone cancer, people with *Pitta Prakriti* develop leukemias, and people with *Kapha Prakriti* develop cancer of soft tissues according to Ayurveda.²⁸ All these works represent close relation between *Prakriti* and lifestyle diseases.

DISCUSSION-The science has made a break through in genetics. Genetic mapping for predicting future diseases and managing them using genetic engineering is possible. World also have realized that classification of humans in major groups is not sufficient, and individual classification is required. Knowledge of *Prakruti* (genotypes) will be useful in these experiments. Many dreaded diseases can be explored with the knowledge of *Prakruti*. The principles of *Prakruti* analysis suggest different medicine for different individuals for the same illness. Understanding of this concept is a step towards customized or designer medicine. Genome can be studied using knowledge of *Prakruti* for preventing many dreaded diseases. Ayurved has given lot of importance to *Prakruti*, because it has power to predict future illnesses. *Prakruti* indicates proneness of that individual for dosha specific diseases by which his *Prakruti* is decided. That means an individual who belongs to *Vata* predominant *Prakruti*, will get *Vata* vitiated diseases more frequently and easily than an individual of *Pitta* or *Kapha* *Prakruti*. The severity of diseases will also be more, if the dosha is *Prakruti* and vitiation is common.

CONCLUSION-

The concept of in Ayurveda holds good factor that it takes the individual's constitution, susceptibility to diseases, mental makeup, and lifestyle and diet factors into consideration for treatment. Thus in this method of treatment they consider the individual as a whole rather than just focusing on the diseases. Once the patient's constitution is known the treatment in Ayurveda is carried out in such a way which helps in leading a balanced optimal health in all

fields One's holds the key to health, liberation, and ultimately self-realization. Thus, analysis or knowledge of prakriti is essential for all to remain healthy and to achieve the goals of a human life.

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