

## CONCEPTUAL REVIEW ON TYPE OF PRAKRITI AND SEASONAL VARIATION FOR DISEASES SUSCEPTIBILITY OF CHILDREN

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### ABSTRACT

*Prakriti* (constitution) means natural constitution of the human body. *Prakruti* comprises of both “physical body” and “mental body”. All the physiological process are directly controlled by *Vata-Pitta* and *Kapha* and *Mansika Doshas* (functional psychic factors) thus by the predominant *Dosha* is a particular type of *Prakriti*. As per *Sushruta Samhita*, *Sharira Sthana*, *Acharya Sushruta* has mentioned that different *Prakriti* individuals have susceptibility for particular disease. 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.<sup>[5]</sup> The environmental condition in various seasons and also the food habits of the children may control his diet but cannot protect oneself totally against the environmental

factors. These factors cast their influence on the entire system and bring about changes in the equilibrium of the *doshas*. *visarga* is "sending forth", "shedding", or "giving away". In this period the moon (*soma*) is predominant and endows to all living beings nourishment and thus increases their bodily strength. *Adana* is means "taking away", "seizing" or "pulling out". In this period the sun is powerful and saps the strength and energy (*Ojas*) from the living being.

**KEYWORDS:-** *Prakriti, visarga, Adana, Kapha, Vata-Pitta, Mansika Doshas.*

### INTRODUCTION

*Prakriti* (constitution) means natural constitution of the human body. *Prakruti* comprises of both “physical body” and “mental body”. All the physiological process are directly controlled

by *Vata-Pitta* and *Kapha* and *Mansika Doshas* (functional psychic factors) thus by the predominant *Dosha* is a particular type of *Prakriti*. *Prakriti* based guidelines for diet and lifestyle result in healthy tissues and homeostasis of *Doshas*. The natural constitution of the body (*Prakriti*) is determined by these three *Dosha* at the time of fertilization. *Prakriti* of an individual does not change except when the end of life is approaching.

*Charaka*<sup>[1]</sup> has mentioned several additional factors which determine the *Prakriti* such as nature of the season, condition inside the uterus, food of mother, during pregnancy, other regimens adopted by mother during pregnancy, *Sukra-Sonita* (sperm-ovum) of father and mother and *Mahabhuta Vikara*. These factors get afflicted with one or more of the *Doshas* which are dominantly associated with the above mentioned factors. Therefore, *Prakriti* of some people is dominated by *Vata*, some others by *Pitta*, some others by *Kapha* and some others by the combination of two *Doshas* and some cases, equilibrium are maintained by *Dosha*<sup>[2]</sup> *Vata* governs movements, *Pitta* is concerned with functions of digestion, metabolism and energy production and *Kapha* governs physical structure, fluid balance and immune response of the body.<sup>[3]</sup>

*Susrutha*<sup>[4]</sup> defines *prakriti* as “the group of character inherited by an individual from *sukra* of the parents depending upon predominance of *dosha*’s prevailing at the time of sexual intercourse.

According to *Ayurveda*, state of equilibrium of *Doshas*, *Dhathu* (body tissue) and *Mala* (metabolic waste) responsible for the state of health of the patient and un-equilibrium of above factors towards the manifestation of diseases. Food, behaviors and environmental factors similar to the properties of the three *doshas* interact and tend to create an imbalance in the *doshas* of the body. Unbalanced state of the *doshas* thereby affects the *dathu* (body tissues) and the *Mala* (waste products) and is leads to manifestation of disease. The imbalance created in the body is reflected in the form of manifested symptoms which is unique to the different *doshas*.

As per *Sushruta Samhita*, *Sharira Sthana*, *Acharya Sushruta* has mentioned that different *Prakriti* individuals have susceptibility for particular disease. 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.<sup>[5]</sup>

The homeostasis among the supporting elements of the mind and body is known as *Dhatusaamya*. Health status of an individual can be compared with the *Ojas* and *Bala* in *Ayurveda*. *Ojas* is our vital energy which pervades all tissues, cells, and spaces; it is the ultimate distillation of each tissue combined together and is the main determinant of immune status and resistance to disease. Different Deha-Prakriti persons have different *Sharirikabala* that is the physical strength. It varies from person to person.

*Charaka* mentioned *thrivida bala* i.e *Sahaja*, *Kalaja* and *Yuktikruta bala*. The *Sahajabala* is the one which exists in the mind and body from the very time of birth.<sup>[6]</sup> *Kalaja Bala* is inclusive of the time of day, day of the week; season, age, and place of birth are important factors for enhancing immunity. Certain places having stronger and healthier climatic and environmental conditions and *kapha* dominating areas contribute to stronger immunity. Also, strength is greater in the early morning, spring, and in youth than in evening, summer and old age. *Yuktikruta Bala* represents acquired immunity, in which disease can be defended against through *Ayurveda*.<sup>[7]</sup>

According to *Charaka*, the *Vata Prakriti* individuals possess *Alpa Bala* and *Ayu*, *Pitta prakriti* individuals possess *Madhyama Bala* and *Ayu* whereas *Kapha Prakriti* individuals possess *Uttama Bala* and *Ayu* hence it is praised as, *Uttama Prakriti* and are less susceptible to diseases.<sup>[8]</sup>

*Vyaadhikshamatva* which appears in the ancient texts is *bala*, generally translated as "strength" and both terms are used *Bala*. *Charka*, while explaining *lakshanas* of different *Prakriti*, said *Vataja prakriti* persons is endowed with *Alpa Bala* and *Ayu* etc, *Pittaja prakriti* persons with *madhyama bala*, and *kaphaja prakriti* persons is with *uttama bala*.<sup>[9]</sup>

### 1. *Vata dominant Prakriti* and Susceptibility of diseases

In *vata prakriti* children who are more prone to diseases of the neurological system especially motor functions. The disease mostly affects the lower limbs since they are the predominant seat of *vata doshas*. Also, these diseases are more pronounced in old age which is the period of *vata* (*vataja kala*).

**Vata Constitution children are prone to the following diseases or symptoms**

**Table no. 1: Neurological disorders.**

<b>Epilepsy</b>	<b>Hemiplegia</b>	<b>Paralysis</b>
Convulsion	Neural tube defects	Deafness
Headache	Tremors	Numbness of foot
Tinnitus	Ptosis of eye	Loss of co-ordination-Ataxia

**Table no. 2: Musculoskeletal disorders.**

<b>Diseases of joints (Arthritis)</b>	<b>Cramps in the calf</b>
Duchenne and Becker muscular dystrophies	Floppy infant
Emery- dreifus muscular dystrophy	Pain in chest
Atrophy of muscles	Stiffness of neck
Pain around the pelvic girdle	Spinal muscular atrophy

**Table no. 3: Developmental anomalies.**

<b>Congenital hydrocephalus</b>	<b>Cleft palate</b>
Cleft lips	Hare-lips
High arch palate	Trachea esophageal fistula
Club foot	Imperforated anus

- ◆ Speech disorders and learning disabilities
- ◆ Psychiatric problems-ADHD, Autism, Asperger's disorder
- ◆ Others

**Table No. 4: Other type of vata disorders.<sup>[10]</sup>**

<b>Weight loss</b>	<b>Abdominal flatulence</b>
Cracking of nails	Abdominal pain
Pain in Chest, pain in eye, earache	Hiccough
Hoarseness of voice	Constipation
Giddiness	Body ache
Dry skin	Memory loss
Anxiety	Palpitations

## **2. Pitta dominant Prakriti and Susceptibility of diseases**

*Pitta* is responsible for various metabolic activities taking place in body. Children who are *pittaja prakriti* more prone towards diseases of the digestive and metabolic systems. This type of diseases mostly affect to the abdomen, and also *pitta* disorders are pronounced in the middle aged which is the period of *pitta* (*pittaja kala*.)

**Table no. 5: Pitta Constitution children are prone to the following diseases or symptoms.<sup>[11]</sup>**

Skin diseases	Bleeding tendencies
Jaundice	Internal burning sensation of the whole body
Urticaria	Gastritis
Excessive sweating	Hyper-pyrexia
Cracking of the skin	Itching of skin
Anemia	Inflammatory diseases (stomatitis), Pharyngitis, conjunctivitis etc.)
Fainting	Herpes zoster
Diseases due to impurities in the blood	Infectious diseases.
Hyperacidity	Peptic ulcer

### 3. Kapha dominant Prakriti and Susceptibility of diseases

*Kaphaja prakriti* children more prone to the respiratory system disorders especially phlegmatic disorders. This type of disorders affects to the upper parts of the body, and also these disorders are pronounced during the early ages (childhood) which is the period of *kapha* (*kaphaja kala*).

**Table No. 6: Kapha Constitution children are prone to development of the following diseases or symptoms.<sup>[12]</sup>**

Allergic respiratory disorders	Asthma
Cold ,Cough	Obesity
Sweet taste in mouth	Excessive salivation in the mouth
Drowsiness	Excessive sleep
Heaviness of body	Laziness of body
Indigestion and	Atherosclerosis
Diabetes mellitus	Hypertension
Coronary heart diseases	Itching problems with or without skin Diseases

### 4. Dwandaja and Samadhatu prakriti

The children with combinations of any two *doshas* are susceptible to diseases of both types of the *doshas*, (i.e. *vata-pitta*, *pitta-kapha* or *kapha- vata* types) It is mentioned in *Ayurveda* that these types are worst in terms of health due to combination of opposite qualities and thereby, selection of drugs to combat the same is a difficult task especially for children of *kapha-pitta* predominance.

1. *Sama prakriti* children are the best in terms of health. They have constitution in which the three *doshas* are in perfect equilibrium. As such they do not have an inborn or natural 'susceptibility' to any type or group of diseases. They are considered as the ideal in terms

of health. They possess a constitution in which the three *doshas* are in perfect equilibrium.<sup>[10]</sup>

### 5. Specific type of *Prakriti* and Susceptibility of diseases<sup>[12]</sup>

- ◆ *Sama dosha prakriti* children are found to be least affected with hereditary ailments.
- ◆ Children belonging to specific *doshas prakriti* are more susceptible to diseases having the predominance of the same *doshas*.
- ◆ Children belonging to *dwandaja* (dual) *prakriti* were found to be more susceptible to ailments than those belonging single *prakriti*.

Here's the list of some of the diseases has been provided which can explain the susceptibility of peculiar *prakriti* on genetic basis.

**Table no: 7: Correlation between specific *Prakriti* and susceptibility of diseases.<sup>[13]</sup>**

S.No.	Gender	Profile	Name of Gene.	Disease	System
	Female	V-K+P+	ATP-binding cassette subfamily C (CFTR/MRP).	Ear wax wet/dry	Cancer cardiovascular immune metabolic and psychiatric.
	Female	V+K-P-	Aryl hydrocarbon receptor	-	Cancer developmental metabolic psychiatric reproduction and vision
	Female	V+K-P+	Alanyl (membrane) amino peptidase (M,N,microsomal CD13, p150)	-	Immune normal variation
	Female	V+K-P+	BCL2-associated athanogene	-	Neurological
	Female	V+K-P+	Bardet – Biedl syndrome 2	Bardet Biedl syndrome	-
	Female	V+K-P-	CD44 molecule (Indian blood group)	Blood group	Immune
	Female	V+K-P+	Complementary Factor H	Factor Hand factor H-like 1(3) Hemolytic uremic syndrome Nephropathy, Macular degeneration and age related	Cardiovascular, Immune Metabolic vision.
	Female	V+K-P-	Heat Shock 70K Da protein	-	Cancer Renal
	Female	V-K-P+	Interleukin receptor type 2	-	Immune infection, Neurological

	Female	V+K-P+	Insulin receptor	Diabetes mellitus, Insulin, resistant, Leprechaunism, Rabson Mendenhall syndrome.	Aging, cardiovascular immune metabolic
	Female	V+K-P-	Janus Kinase 1 (a protein tyrosine kinase)	-	Infection
	Female	V-K+P-	V-Ki-ras2, Kirsten rat sarcoma viral oncogenic homolog	Bladder cancer Breast cancer Somatic Leukemia Lung cancer, Noonan syndrome 3, Pancreatic Carcinoma stomach cancer	Cancer
	Female	V-K+P+	Neurofibromin -I (Neurofibromatosis, Von reckling hausen disease, watson disease)	Hepatic adenoma leukemia (all type) neuro fibromatosis Noonan's syndrome severe congenital neutropenia, sertoli cell syndrome, stem cell leukemia lymphoma syndrome, Watson syndrome diabetes mellitus diabetes insipidus.	Cancer Cardiovascular Psychiatric
	Female	V-K+P-	Nerve growth factor receptor (TNFR Super family member 16)	-	Psychiatric
	Female	V+K-P+	PDZ and Lim Domain	-	Psychiatric
	Female	V+K-P-	Pleckstrin	Spino cerebella ataxia, Age related maculopathy	-
	Female	V-K+P+	Protactin receptor	-	Cancer, Immune
	Female	V+K-P+	Protein Tyrosine phosphatase, Non receptor type -12	Breast cancer	Cancer
	Female	V+K-P-	RAD 51, Homolog (Rec A homolog, E.coli)	Breast Cancer	Cancer
	Female	V+K+P-	Rh blood group,D-antigen.	Rh-negative blood group.	Cardiovascular, Hematologic Psychiatric
	Female	V+K+P-	Testicular Soluble - adenylyl cyclase	Epiphyseal dysplasia multiple spastic ataxia, Hypercalcinuria	-
	Female	V-K-P+	Sec 63 homolog (S.Cervisiae)	Polycystic liver disease	-
	Female	V-K+P-	Thioredoxin	Spinocerebellar ataxia, Machado-Joseph disease	-



	Female	V+K-P+	Aminoadipate semialdehyde synthase	Hyperlysinemia, Saccharopinuria	-
	Female	V-K+P+	Adrenomedulin	Acetyl-CoA, dehydrogenase cow chock syndrome, Glomerulocystic Kidney disease with hyperuricemia, Hyperuremic nephropathy familial juvenile, Kaliman syndrome Macular dystrophy, cystic kidney disease	Cardiovascular Metabolic
	Female	V-K+P+	Adenosine A1 receptor	-	Cardiovascular, Psychiatric
	Female	V+K-P+	A Kinase (PRKA) Anchorprotein -10	Longevity reduced	-
	Female	V+K-P+	Arachidonate 5 lipooxygenase-activating protein	Myocardial in -farction stroke	CVS, Immune
	Female	V+K-P-	Type 1 Tumor necrosis factor	-	Cardiovascular
	Female	V-K+P-	CD 24, Molecule	Multiple sclerosis	Immune
	Female	V+K+P-	Cyclin dependant kinase inhibitor IC	Back with Wiedemann syndrome	Metabolic
	Male	V-K+P-	Cox10 homolog, cytochrome oxidase assembly protein haem A	Encephalopathy progressive mitochondrial	-
	Male	V+K-P+	Chronic somatotropin hormone 2	-	Metabolic
	Male	V-K+P-	Cathespins 4	-	Cardiovascular Neurological
	Male	V-K+P-	Dihydropyrimidine dehydrogenase	Thiamine uraciluria, Fluorouracil toxicity	Cancer development, metabolic normal variation, Pharmacogenomics

## 6. Seasonal Variation and Susceptibility of diseases

The environmental condition in various seasons and also the food habits of the children may control his diet but cannot protect oneself totally against the environmental factors. These factors cast their influence on the entire system and bring about changes in the equilibrium of the *doshas*.



If the qualities of these factors are opposite to those of the constitutional qualities, the individual enjoys perfect health. On the contrary, if the qualities of the constitution are similar, the result would be accumulation of *doshas* and change in the equilibrium culminating in diseases.

A year can be broadly divided into six parts or seasons. They are *varsha* (monsoon or rainy season), *sharada* (autumn), *hemanta* (early winter), *sishira* (late winter), *vasanta* (spring) and *grishma* (summer). Each of these seasons is associated with the characteristic environmental factors by which they are identified. Each has specific effects on the equilibrium of the *doshas* of an individual.

### Concept of *Adana* and *Visarga kala*<sup>[14]</sup>

The six seasons or *ritus* can be broadly classified into two groups based on the movement of the sun. When the sun is in the southern course (*dakshinayana*) it is called as *visarga Kala* and the three seasons corresponding to it are *varsha*, *sharada* and *hemanta*. When the sun is in the northern course (*uttarayana*) it is called as *adana kala* and the three seasons corresponding to it are *sishira*, *vasanta* and *grishma*.

The Sanskrit meaning for the term *visarga* is "sending forth", "shedding", or "giving away". In this period the moon (*soma*) is predominant and endows to all living beings nourishment and thus increases their bodily strength. This period bestows *bala* (strength) and is soft (*somya*) in nature. Human beings are endowed with natural strength during this period which begins with the *varsha ritu* and reaches its peak energy (*Ojas*) during the *hemanta ritu*.

*Adana* means "taking away", "seizing" or "pulling out". In this period the sun is powerful and saps the strength and energy (*Ojas*) from the living being. This period starts with the *sishira ritu* (Early Winter) and culminates with *grishma ritu* (summer). During this period human beings begin to lose their nature strength and energy which reaches the minimum during the *grishma ritu*.

### Effect of seasons on the *prakriti* types<sup>[15]</sup>

In summer, due to extreme heat and its dry and rough qualities, the digestive power is very low and the body loses water due to perspiration. These factors aggravate *vata dosha* which has similar properties and causes accumulation of *vata*. The excessive heat, which is antagonistic to the cold quality of *vata*, prevents it from being vitiated.

During the rainy season, this follows the summer, the sudden change from hot to cold weather results in the vitiation of *vata*, thus causing diseases. The excessive heat in summer leads to increased exhaustion and reduction of body strength. Heat also results in the increase of the *pitta dosha*. With the advent of rains on the dry and hot earth, the pungent taste of the land becomes sour and these results in the accumulation of *pitta dosha*. The cool environment does not allow the *pitta dosha* to be vitiated due to antagonistic action. Autumn, which follows the rainy season, is hotter and this leads to the vitiation of the already accumulated *pitta dosha* and results in diseases.

The extreme cold of winter leads to accumulation of *kapha*. Due to extreme cold, the *kapha* solidifies. Spring is warm, causing liquefaction of the accumulated *kapha* and vitiates it causing disorders.

Here are some guidelines given according to *doshas* type. It will help to improve one's immunity and decrease the chance of disease susceptibility.

**Table no. 8: Guidelines for *prakriti* types.**<sup>[16]</sup>

S. No.	Psychological condition	<i>Vata</i>	<i>Pitta</i>	<i>Kapha</i>
1	i. Contraindicated	Anger, Sorrow, Anxiety, worries	Ambition, Anger Fear	Calm and quiet nature
2	ii. Indicated	Calm and cool mind, Music	Calm and cool mind, enjoyment, Dance, Music	Should be actively engaged
3	Smell	Sweet and mild like garlic, cloves cinnamon, ginger etc.	Fragrant/ cold and pleasing like sandalwood, camphor, rose, ushira, priyangu.	Sharp and penetrating smell like pepper, Vacha, Ginger, Agru.
4	Taste	Sweet, Sour, Salty	Sweet, Bitter and astringent	Pungent bitter and astringent
5	Color	Red, Yellow, brown, white, violet, orange	Green, blue white	Red, Orange
6	Touch (Massage with)	Sesame oil, ghee cream of Milk, fomentation spray application of oil past to body.	Coconut oil ghee cream of milk, cold touch, spray	Mustard oil, sand fomentation
7	Sound	Soft and slow	Medium	Harsh and high
8	Activity/ Exercise	Light Indicated	Moderate Indicated	Heavy indicated.
9	Speech	Avoid on necessary speaking, low	Low tone and soft speech	Long, High tone speech singing.

		speech		
10	Exposure to sun	Evening sun good.	Contraindicated	Indicated
11	Exposure to wind	Contra indicated	Cold breeze indicated	Indicated

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