



Research Article

CLINICAL ASSESSMENT OF HYPOTHYROID SYMPTOMS IN DIFFERENT TYPES OF PRAKRITIV.V.L. Prasuna^{1*}, Bandari Srinivasulu²^{1*}Medical Officer, Sagarlal Memorial Hospital and Matadin Goel Research Centre, Hyderabad, Andhra Pradesh, India.²Consultant (Ayu.), National Institute of Indian Medical Heritage, Revenue Board Colony, Gaddiannaram, Hyderabad, Andhra Pradesh, India.

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ABSTRACT

Ayurveda gives utmost importance to personalized therapy. It upholds individual physiology, pathology, treatment methods and lifestyle adaptations by means of *Prakriti* (body constitution), *Prakriti* is the unique psychosomatic temperament of an individual, encompassing the person's physical, functional and behavioural characteristics. Like genetic coding, every individual has a different combination and is therefore a distinct entity. Each and every person is different and their physiological (*Agni, Koshta*) and pathological manifestations vary accordingly. Each person responds differently though exposed to same stimuli. Lot of research works has been carried out to establish the role of *Prakriti* in different diseases. In the present study, an attempt is made to evaluate the role of *Prakriti* in the manifestation of hypothyroidism in different individuals. 100 hypothyroid patients are selected and grouped according to their *Prakriti* and their clinical features were studied. The group of patients belonging to the same *Prakriti* have showed similarity in their clinical features. This approach will help in assessing the susceptible clinical features of each *Prakriti* type and also helpful to take preventive measure in arresting the progression of disease.

KEY WORDS: *Prakriti*, Psycho-somatic constitution, Hypothyroidism, Constitutional diseases.**INTRODUCTION**

The symptoms of hypothyroidism are nonspecific. There are no specific symptoms that all hypothyroid patients will always have and its manifestation varies from person to person.^[1] *Ayurvedic* system of medicine is one of the oldest healthcare systems which adopts a personalized approach towards the patient by means of *Prakriti*. *Prakriti* is the psycho-somatic constitution of an individual, which is determined at the time of

conception^[2] and later, influenced by environmental factors like diet and regimen of mother, race, age etc.^[3] There are 7 *Prakriti* types based on the relative preponderance of *doshas* (body humors) at the time of conception, they are *Vata, Pitta, kapha, VataPitta, Vatakapha, kaphaPitta* and *Sama/Sannipata*.^[4] This inherent predominance of *Dosha* imparts the person with peculiar physical, physiological and anatomical features (summarised in tables 1.1, 1.2 and 1.3.).

Table 1.1: Showing the physical characteristics of different *Prakriti* [5]

PHYSICAL CHARACTERISTICS			
	<i>Vata Prakriti</i>	<i>Pitta Prakriti</i>	<i>Kapha Prakriti</i>
Body	Thin, lean, slender, under developed, long or short, disproportionate, lustre less body with prominent veins and tendons	Good looking and delicately shaped	Well formed, proportionate, compact, glossy body with stable movement and majestic gait.
Joints	Unstable, stiff joints with crackling sounds	soft and loose Joints, muscles and limbs	Strong, well hidden joints
Body organs	short/less/thin/cracked, stiff, dry, rough organs	coppery nails, eye, palate, tongue, lips palm and soles	Compact, firm and full grown organs, long arms, big and elevated chest, wide forehead.

Skin	Dry, rough, cracked and cold skin with dark, brownish, black, grey or dusky complexion	Warm, soft, delicate, sensitive skin with freckles and moles, wrinkled skin with fair, reddish, yellowish or pinkish complexion	Smooth, moist, cold, non wrinkled or glossy, oily skin with light, clear and whitish complexion
Hair	Thin, scanty, less, dry, rough, cracked with split ends	Thin, fine, soft, blonde or red, early greying	Thick, glossy, firmly rooted, wavy and bee-black hair
Body hair	Scanty	Coppery colored	Thick and plentiful
Nails	Short, rough, brittle, dark and lustreless	Slightly oily, coppery or pink coloured	Thick, smooth, shinny
Eyes	Dry, unsteady and blinking	Sharp and penetrating with blonde or copper eye lashes; eyes easily becomes red and desirous of cold	Large, attractive and full with thick eye lashes, moist and pleasant eyes
Lips	Dark, dry, cracked	soft, pink, copper coloured	Full, thick moist and oily
Teeth	Small, crooked, easily cracked	Moderate size, yellowish	Strong, large, white
Pulse	Fast, easily changing	Moderate, jumping	Slow, broad, steady
Voice	Low, hoarse voice	high-pitch, commanding	Pleasant voice
Speech	Talkative	Authoritative, contending debater	Calm and quiet

Table 1.2: Showing the physiological characteristics of different *Prakriti*

PHYSIOLOGICAL CHARACTERISTICS			
Appetite and digestion	Inconsistent, varies between strong and weak	Intense and sharp, cannot skip the meal	Weak and slow digestion, can skip meal
Quantity of food intake	Sometimes large, Sometimes poor	Always large and frequent food intake	Remain strong even though consume food which is bitter, astringent, pungent, hot, dry and less in quantity
Diet habits	Irregular diet habits and likes	Eats too often and too much	Regular eating habits and likes, slow food intake
	Likes unctuous, hot, sweet, sour, salty foods	likes sweet, bitter, astringent and cold foods and drinks	Likes sweets
Groups of tastes desired	Sweet, salt and sour	Sweet, bitter and astringent	Pungent, astringent and bitter
Thirst	Irregular	Excessive and intense	Less
Excretions	Constipated bowel	Loose stools, Excessive sweating and urination	Normal steady evacuation
Vigour	lesser quantity of strength and procreation	Insufficiency of semen, sexual desire and procreation	great vigour, sexual prowess, desire in tastes; more of semen, children and attendants
Sleep	Interrupted and less, snoring/grinding teeth, eyes half open during sleep	Normal	Excessive and deep sleep
Dreams	Dreams of Flying, jumping, climbing hills, storms in the sky, etc.	Dreams of Bright and lustrous object (such as fires and flames), Violence, fights, struggle	Dreams of earth and water (Water birds and flora sighted) Clouds, romance, etc.
Physical activity	Very quick with swift movements	Often complaining	Slow and steady gait and activities
Disease tendency	Catches diseases very easily	Moderate resistance	Good resistance
Likes and dislikes	Changes with time	Medium	Constant
	Intolerant to cold climate	Intolerant to hot climate	not much bothered
	desirous of music, humour, hunting, gambling, gardens, history, biographies	Fond of women, garlands, unguents (perfumeries), water	obedient to teachers (and elders)
Life style	Spends more money, impulsive most times	Spends more money but planned, often showy	Spends less money/money saving

Table 1.3: Showing the psychological characteristics of different *Prakriti*

PSYCHOLOGICAL CHARACTERISTICS			
Intelligence	Intelligent but not well organized	Brilliant	Steady intelligence
Grasping	Fast	Moderately fast	Slow
Enthusiasm	Very high	Moderate	Less
Memory	Good short term	Medium	Good long term
Fear	Easily frightened	Fearless, courageous	Courageous
Enmity	Forgets quickly	Forgive and forget	Concealed & long term
Performance of activities	Quick with a lot of initiative, Poor finishing	Moderately medium initiation, accurate planning and finishing	Very slow/lazy to start, Thoroughness oriented, deeply attached to work
Social-relations	Interact with others easily	Relations with purpose	Shy/slow to start relations
Friends	many, keeps on changing	Very selective	Stable/old friends
Jealousy	Sometimes jealous	Very jealous and competitive	Not much concerned
Thankfulness	Varies	Moderate	Very high
harsh/rude	Unintentional	Intentional	Never been harsh
Religiosity	Atheist/frequently changing	Flexible	deeply religious
Honesty	Variable	moderate	strong
Charitableness	Impulsive in donating	moderate	Donating after long consideration
Luck/fortune	less fortunate	moderate	very lucky
Behaviour	Quick attachment and detachment, thief, unstable thinking, no control over senses, not civilized, impolite, biting nails, shaking legs	afraid of discomfort, desirous of grandeur, likes to be praised, proud, very clean, cultured behaviour, good conduct, affectionate to dependents	righteous, benevolent nature, greedless, peaceful, calm and patient, bashful, dignified, firm in scriptural knowledge and views

Apart from *Agni, Koshta* (digestion and metabolic functions),^[6] pathological manifestations also differ according to *Prakriti*. So each and every person is different and each person responds differently though exposed to same stimuli.^[7] *Caraka* mentioned constitutional diseases, i.e. the incidence of diseases which are more prone to their *Prakriti*.^[8] In the recent past there have been several interesting studies indicating constitutional basis for the diseases like obesity,^[9] diabetes,^[10] peptic ulcer^[11] and cancer^[12] etc. Apart from this, recent studies on *Prakriti* showed variations in genetic,^[13] biochemical^[14] and haematological levels.^[15] When parameters like this show variability according to *Prakriti*, it was logical to assume that clinical features of hypothyroidism might as well show similar variability. So an attempt is made to evaluate the role of *Prakriti* in hypothyroid individuals. 100 hypothyroid patients are studied for their *Prakriti* to find out whether there is any difference in the manifestation of clinical features. In the present study 35 most common clinical features are selected and their early and late symptoms were observed after thorough examination of *Prakriti*.

AIM OF THE STUDY

- To analyze the influence of *Prakriti* on the disease hypothyroidism
- To evaluate the role of *Prakriti* in the manifestation of clinical symptoms in hypothyroid patients.

Subjects and Methods: 100 patients with proven hypothyroidism attending the OP department of Sagarlal memorial hospital were selected randomly as per the inclusion and exclusion criteria and studied for their *Prakriti* and their clinical features were analyzed to evaluate the relation between the clinical features of hypothyroidism and *Prakriti*.

Place of study: This clinical trial is carried out at Sagarlal Memorial Hospital and Matadin Goel Research Centre in the year 2012, Hyderabad.

Diagnostic criteria: The diagnosis of hypothyroidism is made. TSH is the best way to confirm the diagnosis of hypothyroidism. TSH level above 10mU/L is conformed as Hypothyroidism.

INCLUSION CRITERIA

After thorough physical examination and by thyroid profile, *Prakriti* assessment is done by physical examination and by questionnaire. The symptoms of hypothyroidism are non specific, so the most common 35 symptoms are taken into consideration.

Clinical features: ^[16,17,18]

1. Anxiety
2. Brittle/ rough hair
3. Cold intolerance
4. Constipation
5. Disturbed concentration/slow thought

6. Depression
7. Drowsiness
8. Dry/rough skin
9. Easy fatigability
10. Easy irritability
11. Edema/periorbital/pedal edema
12. Goiter
13. Hair fall
14. Hoarseness of voice
15. Hyperlipidemia
16. Indigestion
17. Irregular menstruation
18. Oligomenorrhea
19. Lethargy
20. Muscle and joint pains
21. Muscle Cramps
22. Muscle Stiffness
23. Myxedema
24. PMS
25. Peripheral neuropathy
26. Poor appetite
27. Poor memory
28. Recurrent URTI
29. Sluggishness
30. Skin infections
31. Unable to lose weight
32. Unsteadiness
33. Vertigo
34. Weakness
35. Weight gain

ASSESSMENT OF PRAKRITI

After the conformation of hypothyroidism, assessment of *Prakriti* is made by physical examination and by questionnaire that is already in use and recommended by CCRAS. This questionnaire contains 47 marks and the results are carried out in terms of percentage. Generally, the single dominant *Dosha* must be at least 2.5 times as much as the other *Doshas* for an individual to be considered a single *Dosha* type. E.g. If the person scores *Vata*-33, *Pitta* -7, *Kapha* -5 than that persons constitution would be considered as *Vata* type. If the person scores *Vata* 20, *Pitta* 18, *Kapha* 7 than that person would be considered as *Vata- Pitta* type. Likewise, assessment of *Prakriti* is made in 100 patients.

EXCLUSION CRITERIA

- Cases of juvenile hypothyroidism
- The patients aged above 65 years
- Patients with severe cardiac and other complications
- Patients who are suffering from hypothyroidism for more than 20 years

RESULTS

In the present study the incidence of hypothyroidism is found considerably high among *Kapha-Pitta* individuals (32%) followed by *Kapha Prakriti* (20%), and the incidence is low in *Sama Prakriti* (3%) and *Vata-Pitta* patients (6%) as shown in table 2.

Table 2: Showing the incidence of hypothyroidism according to Prakriti

<i>Prakriti</i>	V	P	K	VP	VK	KP	VPK
No. of patients	10	12	20	6	17	32	3

In the present study, 32 cases are fresh cases and 68 cases are chronic cases. The symptoms of fresh cases are taken as early symptoms and those with the chronicity of more than 6 months are considered as late symptoms. The clinical features observed in each *Prakriti* types are mentioned here as early and late symptoms.

The symptoms observed in Vata Prakriti

The early symptoms of *Vata Prakriti* patients are hair fall (60%), dry skin (50%), hoarseness of voice (40%), anxiety (40%) and constipation (30%). Most of the *Vata Prakriti* individuals complained about hair fall along with dryness/roughness of the hair with frequent split-end problems. Though it is not a complaint from the patient, dry skin is noted more in this *Prakriti*. The clinical features of the *Vata* patients suffering from hypothyroidism for more than six months are muscle and joint pains (50%), cold intolerance (40%), muscle cramps (30%) and brittle rough hair (30%). (Table: 3)

Table 3: Showing the % of clinical features of hypothyroidism in Vata Prakriti

Clinical features	% of symptoms seen in <i>Vata Prakriti</i> (n=10)
Hair fall	60
Dry skin	50
Hoarseness of voice	40
Anxiety	40
Constipation	30
Late symptoms	
Muscle and joint pains	50
Cold intolerance	40
Brittle rough hair	30
Muscle cramps	30

The symptoms observed in Pitta Prakriti

In the present study, 12 patients are of *Pitta Prakriti*. The early symptom most of them complained was vertigo/giddiness, a feeling of falling down (50%), weakness (41.7%) easy irritability (33.3%) and disturbed concentration (33%). Another feature is premenstrual tension (33.3%) with the complaints like aggressiveness, irritability, depression, nausea, headache, and mood swings etc. In late symptoms, patients complained irregular menstruation (25%), easy fatigability (25%), poor memory (16.7%) and repeated attacks of skin infections (16.7%). (Table: 4)

Table 4: Showing the % of clinical features of hypothyroidism in Pitta Prakriti

Clinical features	%of symptoms seen in Pitta Prakriti (n=12)
Vertigo	50
Weakness	41.7
Easy irritability	33.3
PMS	33.3
Disturbed concentration	33.3
Late symptoms	
Irregular menstruation	25
Easy fatigability	25
Poor memory	16.7
Skin infections	16.7

The symptoms observed in Kapha Prakriti

In the present study, 20 patients are *Kapha Prakriti* patients. The main complaint is recent weight gain (75%). The other complaints are lethargy (75%), oligomenorrhea (60%) and depression (35%). The main complaint of the chronic patients is unable to lose weight despite eating less and regular exercise (40%). Other symptoms are drowsiness (35%), hyperlipidemia (35%), weakness (35%) and edema (20%). Peri-orbital and pedal-edema is observed more in this *Prakriti*, whereas myxedema is seen more in *Kapha-Pitta Prakriti*. (Table: 5)

Table 5: Showing the % of clinical features of hypothyroidism in Kapha Prakriti

Clinical features	% of symptoms seen in Kapha Prakriti (n=20)
Weight gain	75
Lethargy	75
Oligomenorrhea	60
Depression	35
Late symptoms	
Unable to lose weight	40
Drowsiness	35
Hyperlipidemia	35
Weakness	35
Edema	20

The symptoms observed in Vata-Pitta Prakriti

In the present study, only 6 patients are *Vata-Pitta* patients. The early symptoms are weakness (33.3%) and hair-fall (16.7%), which responded quickly with hypothyroid treatment. The late symptoms are voice changes (16.7%) and irregular menstruation (16.7%). (Table: 6)

Table 6: Showing the % of clinical features of hypothyroidism in Vata-Pitta Prakriti

Clinical features	% of symptoms seen in VP Prakriti (n=6)
Weakness	33.3
Hair-fall	16.7
Late symptoms	
Voice changes	16.7
Irregular menstruation	16.7

The symptoms observed in Vata-kapha Prakriti

In the present study, most of the *Vata-kapha* patients complained about recurrent attacks of cold, cough, sinusitis, tonsillitis, ASOM, DNS and allergic rhinitis (47%). The other symptoms are disturbed concentration/slow thought (41%), sluggishness (35%), lack of interest (35%), unsteadiness (26.7%) etc. The main feature observed in chronic *Vata-kapha* patients is goiter (58%). Of the total 31 goiter patients, 10 patients are *Vata-kapha* patients. The other symptoms are weight gain (40%), depression (26.7%) and muscle cramps (26.7%). (Table 7)

Table 7: Showing the % of clinical features of hypothyroidism in Vata-kapha Prakriti

Clinical features	%of symptoms seen in VK Prakriti (n=17)
Recurrent URTI	47
Disturbed concentration/slow thought	41
Sluggishness	35
lack of interest	35
Unsteadiness	26.7
Late symptoms	
Goiter	58
Weight gain	40
Depression	26.7
Muscle cramps	26.7

The symptoms observed in Kapha-Pitta Prakriti

The incidence of hypothyroidism is more in this *Prakriti*. In the present study, 32 patients out of 100 belong to *Kapha-Pitta Prakriti*. The main complaints of these patients are weight gain (66%), lethargy (63%), drowsiness (34%), myxedema (34%), digestive problems (31%) and anxiety (31%). In the late symptoms are 14 patients out of 32 patients complained about unable to lose weight (44%). Out of 14 patients, 6 patients are suffering

from PCOS problem. The other complaints are joint pains (44%), peripheral neuropathy (31%) and oligomenorrhea (31%). In this group 12 patients are chronic patients and hyperlipidemia is observed in these 10 patients (25%). (Table 8)

Table 8: Showing the % of clinical features of hypothyroidism in Kapha-Pitta Prakriti

Clinical features	% of symptoms seen in KP Prakriti (n=32)
Weight gain	66
Lethargy	63
Drowsiness	34
Myxedema	34
Indigestion	31
Anxiety	31
Late symptoms	
Unable to lose weight	44
Joint pains	44
Oligomenorrhea	31
Peripheral neuropathy	31
Hyperlipidemia	25

The symptoms observed in Sama Prakriti

Sama Prakriti is a very rare *Prakriti*. They are usually healthy compared to others and in the present study, only 3 patients are *Sama Prakriti* patients. Their complaints are sluggishness (33%), weakness (33%) and joint pains (33%). (Table 9)

Table 9 Showing the % of clinical features of hypothyroidism in Sama Prakriti

Clinical features	%of symptoms seen in Sama Prakriti (n=3)
Sluggishness	33
Weakness	33
Joint pains	33

DISCUSSION

Like genetic coding, *Prakriti* is determined at the time of conception itself. The relative predominance of *Doshas*, imparts the person with specific *Agni, Koshta* etc., each person reacts differently to same stimuli. Therefore, pathological manifestations also differ according to their *Prakriti* type. In the present study, nearly 60 clinical features are observed ranging from mild rhinitis to striking myxedema. One patient's only complaint is allergic rhinitis and any other symptoms is not at all seen; her TSH level is 60. In the present study, the disease incidence is observed more in *Kapha-Pitta Prakriti* (32%) and very low in *Vata-Pitta Prakriti* (6%). The clinical symptoms also showed variation according to *Prakriti*. The main clinical features observed in *Vata Prakriti* are hair fall, dry skin, muscle and joint pains. Mild cases of anxiety are observed in *Vata Prakriti*, which relieved quickly whereas, depression, severe anxiety and anxiety with phobia is seen in *Kapha-Pitta* patients. The main features in *Pitta Prakriti* are vertigo, easy fatigability; weakness and pre menstrual tension are the main features. The symptom weight

gain is seen more *Kapha Prakriti* patients followed by *Kapha-Pitta* people. *Oedema, generalised, periorbital, myxedema* is seen more in *Kapha* predominant *Prakritis*. Psychological features like lack of interest, unsteadiness, sluggishness, disturbed concentration, poor memory are seen more in *Vata-kapha Prakriti* and incidence of goiter is also more in this *Prakriti*, followed by recurrent attacks of upper respiratory tract. *Vata-Pitta* patients showed wonderful response towards treatment. Their symptoms relieved within very short period; as the sample size is low (n=6) in the present study, some more work is needed in this area.

CONCLUSION

From the present study and its observations, it is clearly evident that *Prakriti* plays a role in the manifestation of clinical features of hypothyroid patients. The incidence of hypothyroidism is more in *Kapha-Pitta Prakriti* individuals. The symptoms more prevalent in *Vataja Prakriti* individuals are hair fall, muscle and joint pains, dry skin and constipation. The main complaints of *Pittaja Prakriti* are- easy irritability, disturbed concentration, vertigo and skin infections. The symptoms seen more in *Kaphaja Prakriti* patients are weight gain, unable to lose weight, oligomenorrhea and hyperlipidemia. The symptoms of *Vata-Pitta Prakriti* are weakness, hair fall and dry skin. The symptoms of *Vata-kapha* individuals are recurrent upper respiratory tract infections, muscle cramps and goiter. The main complaints of *Kapha-Pitta Prakriti* individuals are weight gain, unable to lose weight, myxedema, lethargy and joint pains

In the above background, it can be concluded that *Prakriti* plays very important role on the manifestation of disease and it is also possible to predict the probable clinical features of each *Prakriti* type. This would give us an opportunity to *predict* clinical features and helpful in taking preventive measures on how they should be avoided and cured. This kind of study would further help in selecting the drugs and treatment modalities and also helpful in the prevention of progression of the disease.

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***Address for correspondence**

Dr. V.V.L. Prasuna
D/O: V.Satyanarayana
Manager
Sripadavallabha anagha datta
kshetram, Agraharam
Near cattle market
Pitapuram, E.G. Dist
Andhra Pradesh, India.
Ph: +91-9493647918
E-mail: prasuna.dr@gmail.com