ISSN 2456-3110
Vol 7 · Issue 3
April 2022

JAiMS
INTERNATIONAL

Journal of Ayurveda and Integrated Medical Sciences

www.jaims.in

JAIMS

An International Journal for Researches in Ayurveda and Allied Sciences

Maharshi Charaka
Ayurveda

Indexed

Journal of
Ayurveda and Integrated Medical Sciences
ISSN 2456-3110
ORIGINAL ARTICLE April 2022

Relation of *Prakriti* and Skin Color - An Observational Study

Rajeshwari Vantagodi

Assistant Professor, Department of Shareer Rachana, BVV'S Ayurved Medical College, Bagalkot, Karnataka, India.

ABSTRACT

Prakriti is one of the most important concepts in Ayurveda which is of 7 types i.e., *Vataja*, *Pittaja*, *Kaphaja*, three *Dwandaja* and one *Sannipataja*. *Prakriti* is first *Pariksha* mentioned in *Charaka Samhita* among *Dashavidhapariksha*. Assessment of *Prakriti* is done based on Anatomical, Physiological, Psychological, and Behavioural factors. *Twak Shareera* is one of the important anatomical features used in the assessment of *Prakriti*. In this article, an attempt is made to understand the color of *Twak* and its relationship with *Prakriti*. An observational study of 150 healthy subjects was conducted to assess the *Prakriti* of individual and its relationship with *Twak Shareera*. We used Von Luschan's chromatic scale (VLS) and The Fitzpatrick scale for classifying skin color. The more the VLS Score, the darker the skin color is. The present study showed that VLS Score increases wherever there is involvement of *Vata* and Fitzpatrick scale showed that *Vataja Prakriti* are more of Dark brown in color compared to *Pitta*. Thus, it can be said that skin color is Genetic in nature and correlated with our theory of *Prakriti*.

Key words: *Prakriti, Skin color, Von Luschan's chromatic scale, Fitzpatrick scale, Ayurveda*

INTRODUCTION

Prakriti one of the most important concepts in Ayurveda is a state which is formed at the time of fertilization due to dominance of *Dosha*. It remains unchanged from fertilization till death. *Prakriti* of an individual is determined on the basis of the dominant *Doshas* when they initially unite in the form of fetus. Therefore, *Prakriti* of some people is dominated by *Kapha*, some others by *Pitta*, some others by *Vata* and some others by the combination of two *Doshas*. In some other cases, however, the combination of all the *Doshas* is found, thus making it to 7 types of *Prakriti*. i.e., *Vataja*, *Pittaja*, *Kaphaja*, three *Dwandaj* and one *Sannipataja*.[1,2,3] *Prakriti* is first *Pariksha* mentioned in *Charaka Samhita* among *Dashavidha Pariksha*[5] for investigating the patients. Assessment of *Prakriti* is done based on Anatomical, Physiological, Psychological, and Behavioral factors.[6] *Twak Shareera* is one of the important anatomical features used in the assessment of *Prakriti*. The parameters for assessment of morphological features in skin are its colour, consistency, tactile features such as dryness/oiliness of skin and body temperature.

Charaka has explained 4 normal colors of the skin - 1) *Krishna* - Black, 2) *Shyama* - Dark, 3) *Shyamaavadata* - Mixture of dark and pale, 4) *Avadata* - also called as *Gaura* (White or pale red).[7] *Ayurveda* explains the factors responsible for the formation of the particular skin complexion right from the time of the union of the *Shukra* and *Shonita*. Normal persons with different *Prakriti* have different skin color presentation i.e., individual color variation. Such individual variation has been broadly, categorized in accordance to *Prakriti* in Ayurveda such as *Vata Prakriti* individuals show lusterless skin and dusky skin color, while the *Pittaja Prakriti* person's body is yellowish and their eyes, lips,

Address for correspondence:
Dr. Rajeshwari Vantagodi
Assistant Professor, Department of Shareer Rachana, BVV'S Ayurved Medical College, Bagalkot, Karnataka, India.
E-mail: vantagodirajeshwari@gmail.com

Submission Date: 17/02/2022 Accepted Date: 22/03/2022

Access this article online

Quick Response Code

Website: www.jaims.in

DOI: 10.21760/jaims.7.3.4

ISSN: 2456-3110 ORIGINAL ARTICLE April 2022

palms and soles are coppery color. The complexion of *Kapha Prakriti* person is *Shweta* (Whitish) or *Avadatgatra* (fair complexion).

In the present study, an attempt was made to assess the *Prakriti* of individual using a special proforma and to understand the color of *Twak* and its relationship with *Prakriti*.

METHODOLOGY

An observational study was conducted to assess the *Prakriti* of individual using a special proforma and to understand the structure of *Twak Shareera* and its relationship with *Prakriti*. Eligible subjects were screened for *Prakriti* using a special proforma of *Prakriti* Assessment. Detailed *Twak Shareera* of the subjects total 150 healthy volunteers were studied and database of their skin color and texture was prepared.

150 Healthy volunteers between 18-60 years of age were recruited for the present study irrespective of their sex, caste and socio-economic status. The subjects were examined in detail as per *Prakriti* proforma for the study. Subjects with any known condition known to hamper the skin color and texture and with known systemic illness were excluded from the study.

Assessment Criteria

The healthy volunteers were assessed with the following parameters.

1. Von Luschan's chromatic scale (VLS) - VLS is a method of classifying skin color. It is also called the von Luschan scale or von Luschan's scale. It is named after its inventor, Felix von Luschan. The equipment consists of 36 opaque glass tiles which is compared to the subject's skin, ideally in a place which would not be exposed to the sun.
2. The Fitzpatrick scale (also Fitzpatrick skin typing test; or Fitzpatrick photo-typing scale) is a numerical classification schema for human skin color. Developed in 1975, the system classifies skin type according to the amount of pigment skin has and skin's reaction to sun exposure.

RESULTS

Table 1: *Prakriti* wise distribution of 150 subjects

Prakriti	**No of subjects**	**%**
Vataja	25	16.67
Pittaja	38	25.33
Kaphaja	10	6.67
VataPittaja	44	29.33
VataKaphaja	7	4.67
Pittakaphaja	25	16.67
VataPittaKaphaja	1	0.67

Table 2: Showing the mean values of Von Luschan's chromatic scale (VLS) Score in difference *Prakriti.*

Prakriti	**VLS Score (Mean + Stdev)**
Vataja	31 ± 4.5
Pittaja	17 ± 7.0
Kaphaja	16 ± 2.6
VataPittaja	25 ± 7.7
VataKaphaja	27 ± 7.2
PittaKaphaja	18 ± 7.6

Table 3: Showing One Way Analysis of Variance of VLS Score in different *Prakriti*

One-way analysis of variance (ANOVA)	
P value	< 0.0001
P value summary	***
Are means signif. different? (P < 0.05)	Yes
Number of groups	6
F	17
R square	0.38

ISSN: 2456-3110 ORIGINAL ARTICLE April 2022

There was significant difference between the groups (p<0.05). The Mean VLS Score was highest in *Vataja* (31 + 4.5) followed by *VataKaphaja* (27 + 7.2) and *VataPitta* (25 + 7.7). The Mean VLS Score in *Pittaja*, *Kaphaja* and *Pittakaphaja* was 17 + 7.0, 16 + 2.6 and 18 + 7.6 respectively.

In Tuckey's multiple comparison test, it was found that there is significant difference between all the groups except *VataPitta* vs *VataKapha*, *VataKapha* vs *Vata*, *Pitta* vs *PittaKaphaja*, *Pitta* vs *Kapha* and *PittaKapha* vs *Kapha*.

Table 4: showing the Fitzpatrick scale in different *Prakriti.*

Prakriti	Light brown	Medium brown	Beige	Dark brown	White	Black
Vataja	1	1	0	17	0	6
Pittaja	18	10	8	2	0	0
Kaphaja	3	0	7	0	0	0
VataPittaja	11	10	2	20	0	1
VataKaphaja	1	1	0	5	0	0
PittaKaphaja	11	4	7	2	1	0

Table 5: Showing the Chi-square analysis of Fitzpatrick scale in different *Prakriti.*

Chi-square	
Chi-square, df	111, 25
P value	< 0.0001
P value summary	***
Statistically significant? (alpha<0.05)	Yes

When analyzed, there is significant difference between the groups (p<0.0001). We found in our study, among 25 *Vataja Prakriti* subjects, 6 were black and 17 were dark brown color. Among 38 *Pittaja Prakriti* Individuals, 18 were light brown, 10 were medium brown, 8 Beige color and only 2 were of black color. Among 44 *Vata Pittaja*, 11 were light brown, 10 were medium brown, 2 were of light color and 20 were of dark color. On the contrast in *Pitta Kaphaja*, 11 were of light brown, 4 were of medium brown, 7 were of beige and only 2 were of dark brown.

Discussion

Our study showed that VLS Score increases wherever there is involvement of *Vata*. The more the VLS Score, the darker the skin color is, i.e., The Mean VLS Score was highest in *Vataja* (31 + 4.5) followed by *Vata Kaphaja* (27 + 7.2) and *Vata Pitta* (25 + 7.7). VLS Score does not make much difference between *Pittaja* and *Kaphaja Prakriti* and their combination. Even, the Fitzpatrick scale shows that *Vataja Prakriti* are more of Dark brown in color compared to *Pitta* and *Kaphaja Prakriti* are comparatively light brown and Medium brown and beige color.

Skin color is determined by a pigment called melanin, and while everyone has melanin (both fair and dark-skinned people), it comes in different forms and ratios. The two forms of melanin are called eumelanin and pheomelanin. Eumelanin comes in primarily brown and black hues, while pheomelanin appears as red and yellow hues. It is produced by a specialized group of cells called melanocytes. Melanin functions as a shield against ultraviolet radiation, thus protecting the cells from the many dangers of excess exposure. The expression of pigment is controlled by six main genes in the body, and this genetic makeup is largely determined by parents and the generations that came before. The majority of genes that control pigmentation have now been identified, and progression of skin color across the world and throughout history can be traced out. Thus it can be said that Skin color is Genetic in nature and correlated with our theory of *Prakriti*.

References

1. Agnivesha. Charak Samhita. Varanasi: Chaukhamba Bharti Academy. Sutrasthana, Vol 7, Vidyotini Hindi

ISSN: 2456-3110 **ORIGINAL ARTICLE** April 2022

Commentry by Kashinath Shastri and Gorakhanath Chaturvedi; 1998;pp39–40.

2. Sushruta. Sushruta Samhita. Varanasi: Chaukhamba Sanskrit Samsthana. Sharirsthana, Vol 4, Ayurvedatatva Sandipika Hindi Commentry by Kaviraj Ambikadutt Shastri; 2001;p62.
3. Vagbhatt. Ashtang Hridya, Vidvanamanoranjini Hindi Commentry by Kashinath Shastri. In: Tripathi Indradev, Tripathi Shrikant, editors. Varanasi: Krishnadas Academy. Sutrasthan, Vol 1, 1194;pp9-10.
4. YT Acharya (Ed). Charaka Samhita of Agnivesha, Vimansthana; chapter 8, Verse 94. Chaukhamba Surbharati Prakashan, Varanasi, 2011, reprint 2011.
5. Harish Rotti, Ritu Raval, Suchitra Anchan, Bellampalli, Sameer Bhale, Ramachandra Bharadwaj, et al. Determinants of *Prakriti*, the Human Constitution Types of Indian Traditional Medicine and its Correlation with Contemporary Science. J Ayurveda Integr Med. 2014 Jul-Sep; 5(3): 167–175.
6. Agnivesha. Charak Samhita. Indriyasthana. Varnasvariyamindriyam, 8th Quote accessed from http://niimh.nic.in/ebooks/ecaraka/(e-Samhita Designed and Developed by National Institute of Indian Medical Heritage, Hyderabad) accessed on 18th March 2018
7. Agnivesha. Charak Samhita. Indriyasthana. Varnasvariyamindriyam, 8th Quote accessed from http://niimh.nic.in/ebooks/ecaraka/(e-Samhita Designed and Developed by National Institute of Indian Medical Heritage, Hyderabad) accessed on 18th March 2018

How to cite this article: Rajeshwari Vantagodi. Relation of Prakriti and Skin Color - An Observational Study. J Ayurveda Integr Med Sci 2022;3:23-26. http://dx.doi.org/10.21760/jaims.7.3.4

Source of Support: Nil, **Conflict of Interest:** None declared.

****