



"AN OBSERVATIONAL STUDY OF 'KRUSHATA' IN VATAPRADHANA PRAKRITI WITH THE HELP OF BMI"

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ABSTRACT

Background & objective Prakriti is body morphology. Prakriti is enumeration of body features internal as well as external. Prakriti is important factor to evaluate physical and morphological constitution of person. In Ayurvedic samhitas there are many attributes described to evaluate Prakriti of person. In present days there is need to give parameter for subjective criteria. So, this study is designed to revalidate and give parameter to "Krushata" in vatapradhana prakriti with the help of body mass index (BMI). **Objective:** □ to give parameter for Krushata. □ to evaluate Krushata observationally in Vatapradhana Prakriti. **Material and Methodology:** □ Prakriti parikshan of all the volunteers were done with the help of M.U.H.S. prakriti parikshan format □ Krushata parikshan of all the volunteers were done by calculating BMI. □ Data was collected in tubular form. **Result:** Krushata or being underweight in adult is neglected in society. But being underweight is primary causative condition. Person having Krushata suffers from poor physical stamina, weak immune system. So they frequently have minor health related problems. Hence it is important to give objective parameter for Krushata using Body Mass Index. As per observation there is high percentage of krushata in vatapradhana prakriti. Due to vishamagni digestion of food occurs improper which can reflect on body physique as 'krushata' in vatapradhana prakriti. In addition vata prakriti person have disturbed sleep. Due to disturbed sleep there is vataprakopa causing rukshata which can affect health and leads to krushata. Charak samhita clearly mention relation between nidra and karshya. **Conclusion:** On the basis of above study, Sushruta samhita has described an attribute 'krushata' in Vata prakriti and data observed which indicates there is high percentage of 'krushata' in vatapradhana prakriti.

KEYWORDS

Vata prakriti, Krushata, Body mass Index.

Introduction: Prakriti is the one of the basic principle of Ayurveda. Every science based on some specific principles, so Ayurveda an ancient science based on some very important basic principles known as 'Siddhant'

For example – Panchbhautic siddhant, Tridosha siddhant, Prakriti-Purush siddhant and many more.

These siddhants are the basis to achieve the purpose of Ayurveda:- Swasthya Swasthakshanam aaturasya vicar prashamanam| Ch. Su.30/26

Prakritistu swabhav| Ch. Vi. 8/95 (Chakrapani tika)

Prakriti is body morphology. Prakriti is enumeration of body features internal as well as external. Prakriti is important factor to evaluate physical and morphological constitution of person. In Ayurvedic samhitas there are many attributes described to evaluate Prakriti of person. Some attributes are physical, some are psychological, and some are social.

Individual having vata prakriti is lean. Krushata(leanness) is important attribute described by all Samhitas Meaning of 'Krushata'(leanness) explained by Dalhanacharya, the commentator of Sushruta samhita in 'Nibandhasangraha vyakhya' as 'Amedaswi' in sutrasthana and 'Alpa manso-Nirmaso va' in uttatantra. In present days there is need to give parameter for subjective criteria. There are some work done on attributes of prakriti to give it objective parameter, but still much work is remaining, So it is sincere attempt to revalidate 'Krushata' in vatapradhana prakriti with the help of Body Mass Index (B.M.I.) So, this study is designed to revalidate and give parameter to "Krushata" in vatapradhana prakriti with the help of body mass index (BMI).

Aim:

Assessment of 'Krushata' in vatapradhana prakriti with the help of BMI.

Objectives:

1. To give parameter for Krushata.
2. To evaluate Krushata observationally in Vatapradhana Prakriti.

MATERIAL AND METHODS

Design:

The design of this research project is observational.

Materials:

- M.U.H.S. Format for prakriti.
- ISI marked-Weighing machine.
- Measuring tape.
- BMI chart.

Methodology

Selection Criteria:-

More than 200 volunteers were submitted to prakriti assessment till target population achieved.

Target population:-

96 Vatapradhana prakriti volunteers.

Sample Size:-

96 volunteers were selected for this study.

Inclusion Criteria:-

- Age – between 24 years to 40 years.
- Sex - Both male and female.
- Healthy volunteers with vatapradhana prakriti.
- Individual having only vegetarian diet.
- Individual those willing for participating in this project.

Exclusion Criteria:-

- Individual having psychological problem like depression, anxiety, mental disorders.
- Individual having sleep disturbances like insomnia
- Individual having any chronic disease, major illness or

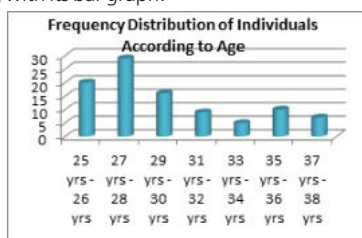
endocrinal disorders.

METHOD OF RESEARCH WORK

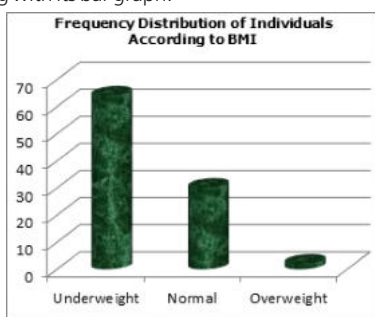
1. Individuals were screened to get desired number of volunteers.
2. Written informed consent of all volunteers was taken. Informed consent form attached at the end.
3. Prakriti parikshan of all the volunteers were done with the help of M.U.H.S. prakriti parikshan format attached at the end.
4. Selected volunteers were submitted to height measurement using measuring tape and recorded.
5. Selected volunteers were submitted to weight measurement using weighing machine and recorded.
6. Krushata (leanness) parikshan of all the volunteers were done by calculating BMI.
7. Data was collected in tubular form.

Observation:

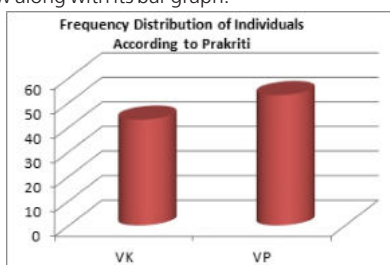
The frequency distribution of individuals according to Age is given below along with its bar graph.



The frequency distribution of individuals according to BMI is given below along with its bar graph.



The frequency distribution of individuals according to Prakriti is given below along with its bar graph.



Data analysis:

Test1:

Aim: To test whether the proportion of vatapradhana prakriti participants with krushata is high.

H0: The population proportion of vata prakriti persons with krushata - low BMI (Underweight) is less than or equal to 50%.

Ha: More than 50% vata prakriti persons have krushata- low BMI (underweight).

The test used is z test for proportions.

The 64 participants out of 96 vata prakriti participants have krushata (leanness).

The test statistic, $Z = 3.26$ & p value = 0.0005.

Since, p value < 0.05, the level of significance.
So there is strong evidence to reject the null hypothesis.

Conclusion:

More than 50% vatapradhana prakriti persons have krushata- low BMI (underweight).

Hence the proportion of vatapradhana prakriti participants with krushata- low BMI (underweight) is high.

Discussion:

Prakriti is basic principle which gives best guideline for healthy life. Daily and seasonal regimes prescribed in Ayurveda are most simple, easily executable, conservative and preventive measures considering prakriti.

Changing habits of diet due to competition and fast lifestyle can leads to krushata (leanness). Krushata or being underweight in adult is neglected in society. But being underweight is primary causative condition. Person having Krushata suffers from poor physical stamina, weak immune system. So they frequently have minor health related problems. Hence it is important to give objective parameter for Krushata using Body Mass Index.

As per observation there is high percentage of krushata (leanness) in vatapradhana prakriti.

The test used is z test for proportions.

H0: The population proportion of vatapradhana prakriti persons with krushata is less than or equal to 50%.

Ha: More than 50% vatapradhana prakriti persons have krushata. ($Z = 3.26$ & p value = 0.0005.)

Since p value < 0.05, the level of significance, there is strong evidence to reject the null hypothesis.

It concludes that more than 50% vatapradhana prakriti individuals have krushata (leanness).

Charak samhita is the only compendium which described prakriti on the basis of guna. So, according to Charak samhita –

Due to ruksha Guna (dry attribute) Vata prakriti person is small frame of body which is ruksha (dry)

Dalhana the commentator of Sushruta samhita mentioned that the ruksha is principle attribute and cardinal sign of vata dosha.

Due to ruksha guna (dry attribute) of vata dosha there is shoshana (absorption) of rasadi dhatu. Shoshan of rasadi dhatu can lead to Krushata (leanness).

Ruksha guna is opposite to snigdha guna (unctusness). Snigdha guna helps to unite (sanghatana) paramanu and helps to nourish body. Ruksha guna suppresses properties of snigdha guna in vatapradhana prakriti.

Due to intense ruksha attribute of vata dosha, vatapradhana prakriti person shows following lakshana – ruksha that is dry, lean, dwarf features of body. Sushruta mentioned Agni in sutrasthana adhyaya 35- 'Aaturopakramaniya' according to dosha.

As Agni influenced by vata dosha is Vishamagni. Vishamagni shows following features.

The Agni which sometimes digest food and sometimes causing aadhmaana, shula, udavarta, atisar, gaurav, pravahana is known as vishama agni.

Vishama agni causes vataja roga.

Charak acharya mentioned types Agni in vimanasthana adhyaya 6 - Roganikvimana that there are four types of agni. Tikshna, manda, sama, and vishama.

In vata prakriti person, if vata dosha influences Agni sthana it represents vishamagni.

Vishamagni is irregularly functioning digestive fire. Such Agni is unpredictable. It sometimes vitiates even after proper care of all rules and regulations of diet and lifestyle. Sometimes this Agni offers astonishing results of functioning properly even after all rules and regulations for diet and lifestyle are ignored.

Due to vishamagni digestion of food occurs improper which can reflect on body physique as 'krushata(leanness)' in vatapradhana prakriti.

In addition vata prakriti person have disturbed sleep. Due to disturbed sleep there is vataprakopa causing rukshata which can affect health and leads to krushata.

Charak samhita clearly mention relation between nidra (sleep) and karshya(leanness).

Nidra(sleep) is responsible for Krushata(leanness) and pushti of sharir(Nourishment).

In another point of view – (panchbhautik vichar)

Dosha are direct descendents of panchamahabhuta. Physiology of dosha is description of their functions. All these functions are due to qualities or attribute these dosha bear. Predominant mahabhuta shows their qualities in dosha.

Vata dosha is combination of two predominant mahabhuta as Aakash and Vayu. Prithvi gives shape to every matter. Since prithvi mahabhuta is extremely less amount in structure of vata dosha, which in vatapradhana prakriti can lead to 'Krushata'(leanness).

So, it indicates that there is high percentage of 'krushata' in vatapradhana prakriti.

CONCLUSION

Observations which are obtained in this study conclude that,

Sushruta samhita has described an attribute 'krushata' in Vata prakriti and data observed which indicates there is high percentage of 'krushata' in vatapradhana prakriti.

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