

An Observational Study To Find Relation Between Sharirik Prakruti & Nakha Sharir

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Abstract

Background:

The Human Body (*Sharir*) Is Composed Of *Dosha*, *Dhatu*, And *Mala*, Collectively Regarded As The Fundamental Roots Of The Body In Ayurveda. *Dhatus* Are Structural And Functional Units That Sustain Life. Among The Seven *Dhatus*, *Asthi Dhatu* (Bone Tissue) Plays A Vital Role In Providing Support (*Dharana*) To The Body. Ayurvedic Classics Describe Various *Upadhatus* And *Malas* For Each *Dhatu*, With *Nakha* (Nails) Identified As The *Mala* (Waste Product) Of *Asthi Dhatu*.

Aim:

To Explore The Significance Of *Nakha* As The *Mala* Of *Asthi Dhatu* And Its Relevance In Assessing *Deha Prakriti* And Life Expectancy As Per Ayurvedic Literature.

Materials And Methods:

A Textual Review Was Conducted Using Classical Ayurvedic Treatises Such As *Charaka Samhita* And *Ashtanga Hridaya*. The Analysis Focused On References To *Nakha*, *Asthi Dhatu*, *Prakriti Pariksha*, And Prognostic Indicators Based On Physical Features.

Results:

Acharyas Have Correlated *Nakha* Features (Color, Texture, Strength) With *Deha Prakriti* (Bodily Constitution). *Charaka* Includes *Prakriti Pariksha* Within The *Dashavidha Pariksha* (Tenfold Examination) To Understand An Individual's Inherent Nature. *Vagbhata* Emphasizes External Markers Like *Nakha* For Predicting Longevity, Suggesting A Deep Link Between Nail Characteristics And Systemic Health.

Conclusion:

Nakha, As A Reflection Of *Asthi Dhatu*, Provides Valuable Insights Into An Individual's *Prakriti* And Potential Health Outcomes. Examination Of *Nakha* (*Nakha Pariksha*) May Aid In Early Assessment And Preventive Strategies In *Ayurvedic* Diagnostics.

Keywords: *Asthi Dhatu*, *Nakha Pariksha*, *Prakriti*, *Dashavidha Pariksha*, *Deha Prakriti*, *Ayurveda*

1. Introduction

Prakruti Formed At Time Of Sperm Ovum Union In Accordance To Attributes Of Predominant *Doshas*. It's

The Genetic Makeup Of An Individual Which Remains Constant Throughout One's Life. According To *Dalhana*

These Predominant *Dosha* Are Of Two Types Normal And Abnormal Of Which The Forms Emerging

Simultaneously With The Body Are The Source Of Natural Constitution Which Later Causing Abnormality In Fetus. Acharya Sushruta Stated That "As The Poison Of The Poisonous Insect Does Not Harm Itself, In The Same Manner Prakruti Although Born Out Of Doshas, Doesn't Harm An Individual. Charaka Has Described That The Following Bhavas Are Responsible For The Formation Of Prakruti I.E

1. *Shukrashonit Prakruti (Sperm/Ovum)*
2. *Kal Garbhashaya Prakruti(Season And Condition Of Uterus)*
3. *Nature Ahar-Vihar Prakruti(Food And Regime Of Mothers)*
4. *Mahabhutvikar Of Prakruti*

Types Of Prakruti Are:

1. *Doshaja (Due To Predominance Of Dosha),*
2. *Gunaja (Due To Reflection Of Psychological Effects)*

Nail Is An Important Part Of Body, Which Plays Crucial Role In The Beauty Of Female; A Pink And Lustrous Nail Is Always Equated With Good Health.

5. Objectives

- To Study The Literature Of Prakruti And Nakha.
- To Evaluate The Prakruti Of Male And Females Using Standardized Ccras Performa.
- To Study About Nakha As Mala In Details From Different Ayurvedic Samhitas, Commentaries, Modern Literature, Dictionaries And Handbook Etc.
- Assessment Of Nakha Of Subjects Of Different Prakruti.
- To Evaluate The Association Between The Sharirik Prakruti And Length, Breadth And Thickness Of Nails.

6. Methods

For The Purpose Of Present Study, A Total Number Of 60 Students Were Screened And Selected. All The Students Were From Patanjali Ayurveda College. With The Help Of Online **Ccras Proforma**, *Prakruti* Of Each Student Was Filled. *Nakha Praman* Of Different *Prakruti* Was Taken Using **Digital Vernier Caliper**. The Resultant Data Was Then Analysed Using **Anova Test**.

a) Selection Of Volunteers: Random Male / Female Subjects With The Mean Age Of 18-30 Years From *Patanjali Ayurvedic College* Was Considered For The Study, Irrespective Of Their Religion, Occupation Etc. The Subject Fulfilling The Inclusion & Exclusion Criteria Were Registered For The Purpose Of Study.

b) Inclusion Criteria

1. Age- 18 To 30 Years.
2. Sex- Male And Female.
3. Under Graduate & Post Graduate Students & Volunteers Between The Same Age Group From College Campus.

c) Exclusion Criteria

1. Volunteers Below 18 Years And Above 30 Years.
2. Volunteers Who Have Painted Their Nails.
3. Volunteers Having Long Nails, Or Have Undergone Nail Extension Procedures.
4. Volunteers With Nail Related Disorders.
5. Volunteers Having History Of Infection, Injury In Hands Or In Fingernails.

d) Steps In Study: Random Subjects Were Selected And *Prakruti* Was Analysed Using Online Ccras Proforma. In Order To Evaluate The Range Of Normal Fingernails The Length, Width And Thickness Of Right-Hand Index Finger Nail Was Taken. The Width Of Finger Nail Was Defined As The Greatest Transverse Distance Between 2 Lowest Point Of The Fingernails In Lateral Nail Grove. The Length Of The Fingernail Was Defined As Greatest Longitudinal Length Between The Tip Of The Finger And The Groove At The Junction Of Proximal Nail Fold And Eponychium. The Thickness Of The Central Part Of The Nail Plates Were Measured By Using A Vernier Calipers.

Statistical Analysis:

The Inference Was Made On The Basis Of Statistically Analysed Data. Since Observations Are Quantitative, **Anova** Test Was Carried Out For Comparison Of *Nakha Pramana* (Length, Breadth And Thickness) Among Different *Prakruti* Individuals.

7. Results And Discussion

During The Study Observational Study Of *Nakha* In *Doshaja Prakruti* 60 Volunteers Were Selected Randomly.

Ayurvedic Review Of Nakha

- *Kha*-Means Cavity/Srotas
- Part Present At Top Of Finger Without Channel Conduction Is Known As *Nakha*
- Described As *Pratayanga*.
- **Utpatti**- Vagbhata Stated That *Nakha* Forms In 6th Month Of *Garbhaavastha*, Emerges As Result Of *Asthi Poshak Ansha* As Mala Part Of *Asthi Dhatu*. Nails/Hairs Are Said To Be The Mala Of *Asthi Dhatu*.

Nakha Is A *Jangam Sharir Bhava*, All Mammals Have *Nakha* As Appendages. According To *Ayurveda Nakha* Is *Pitraj Bhava*. Nails Are Protusion Of *Kandra* Present In *Hasta* And *Pada* Region. *Nakha* Is The Considered To Be The *Mala* Of *Dhatu*.

Mala Of *Asthi Dhatu* According To Different *Acharyas*:

<i>Asthi Mala</i>	<i>Cha.Su</i>	<i>Su.Sa</i>	<i>Bhavaprakash</i>
<i>Kasha</i>	+	-	-
<i>Loma</i>	+	-	+
<i>Nakha</i>	-	+	+

Roma	-	+	-
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Nakha In Different Prakruti

Vata Prakruti	Pitta Prakruti	Kapha Prakruti
Parush Nakha	Tamra Nakha	Parush Nakha
Alpa Nakha (A.S)	_____	_____
Stabdha Nakha (A.S)	_____	_____

Acharya Sushruta Described Nakha As Anushastra Used For Bhedan Karma In Those Patients Who Are Afraid Of The Sight Of Surgical Instrument, Sushruta Invented Nakha Shastra Was 8 Angul In Length, Fitted Into Fingers. Nakha Was Also Considered As Upyantra I.E Accessory Or Subordinate Instrument Used To Remove Foreign Body

Nakha Sankhya: - 20

Swaroopa: - Charaka Elaborates That Nakha Has Properties Like Stula, Sthira, Murta, Guru, Khar And Kathin. These Characteristics Can Be Linked To The Malas Of Asthi Dhatu.

Subparts Of Nails Describe In Samhita Are-

- **Upnakha** - Unula
- **Nakhanthara** - It Is The Middle Of Nail.
- **Nakhasandhisthana** - Meeting Point Of Nail.
- **Nakhaagra**-Free And Nonsensitive Part Of Nail.

Modern Review Of Nail

Nail Is The Thin Hard Layer That Covers The Ends Of Fingers And Toes. Nail Unit Represent An Integral Part Of The Tip Of The Digits. The Fingernail Is A Keratinized Structure With A Rectangular, Translucent, And Transparent Appearance. The Fingernail Covers The Nail Bed And Is Curved In Both The Longitudinal And Transverse Axes.

Function-

- Part Of Defense Or Attack Mechanism
- Scratching Or For Cosmetic Purpose
- Serves As Protective Layer Over Dorsal Aspect Of Each Distal Phalanx Of Both Hands
- Our Fingertips Are Extremely Important Sensory Organs And Nail Enhances This Function

Rate Of Growth-Unlike Hair, Nails Grow Continuously At A Rate Of Approximately 0.1mm/Day Or 3mm A Month. Toe Nails Grow At About 1/2 To 1/3 The Rate Of Finger Nails.Fingernails Regenerate In 4-6months Whereas Toe Nails In 8-12month.

Development Of Nail Unit- Finger And Toe Nails Are Discernable At 8th Week Of Gestation. There Is An Invagination Of Primitive Epidermis To Form An Uninterrupted Groove Delineating A Flattened Surface At The End Of Each Digit, Known As Nail Field. A Group Of Cells Forms The Proximal Part Of The Nail Fold Then Grow Proximal Into The Digit, Stopping Approximately 1mm From The Phalanx & This Gives Rise To Primodium. This Site Will Eventually Contribute To The Epithelium Of Proximal Nail Fold As Well As Distal And Intermediate Matrix Epithelium. At 13th Week Of Gestation Both Proximal Nail Fold Is Formed Band The First Sign Of Nail Plate Growth Is Observed From The Lanula. At 18th Week Gestation The Granular Layer Recedes And The Nail Bed Takes Post -Natal Appearance. At 20th Week Gestation The Process Of Cellular Differentiation And Maturation In Matrix Is Similar To That Of Adult Nails. At 32nd Week Of Gestation, Virtually All Components Of Nails Can Be Recognized.

Biochemistry Of Nails- The Protein Constituents Of The Nail Unit Can Be Categorized Into Three-

- Low Sulfur Keratin (40-60kda)
- High Sulfur Keratin (10-25kda)
- High Glycerin Tyrosine Matrix Protein (6-9kda)
- The Main Lipid Of Nail Is Cholesterol
- Fat Content Is Only 0.1%-1%
- Water Content Is 7%-12%

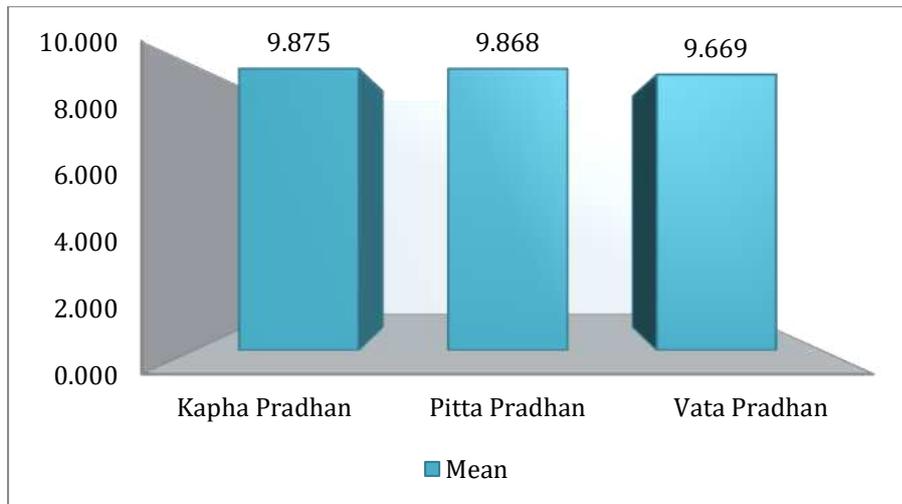
Biophysical Properties: Rigidity And Strength Of The Nail Plate Due To-

- Double Curvature Of The Nail Plate
- Very Low Water Content, Is Highly Permeable To Water

The Orientation Of The Keratin Fibrils In A Plane Parallel To The Surface And Perpendicular To The Direction Of Growth

Table I (Length Of The Nail)

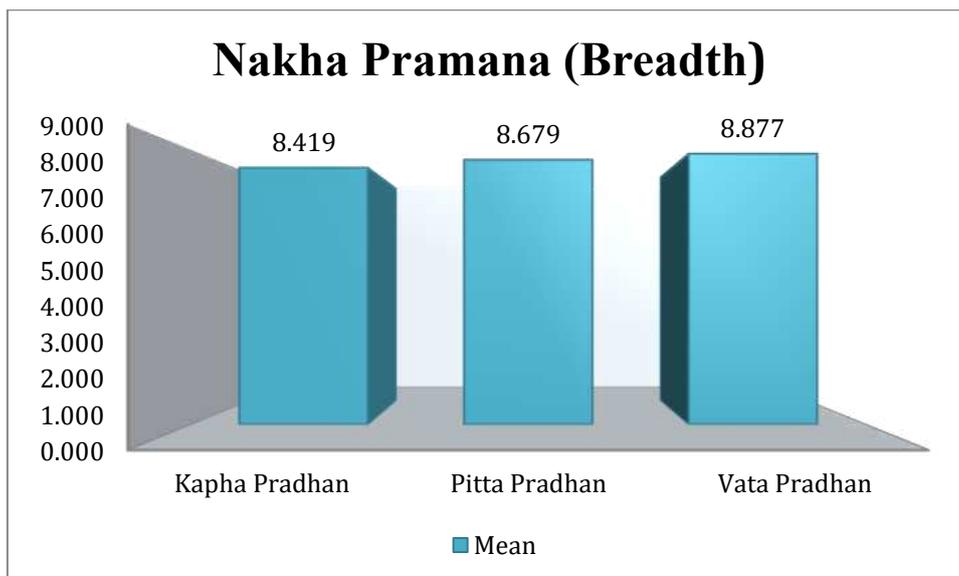
<i>Nakha Praman (Length)</i>	N	Mean	Sd	Se	F-Value	P-Value	Result
<i>Kapha Pradhan</i>	13	9.875	1.183	0.265	0.154	0.858	Ns
<i>Pitta Pradhan</i>	13	9.868	1.422	0.326			
<i>Vata Pradhan</i>	24	9.669	1.435	0.313			



From Above Table, It Can Be Observed That, P-Value Is Greater Than 0.05. Hence, We Can Conclude That, There Is No Significant Difference In *Nakha Pramana* (Length) Based On *Prakruti* Of An Individual.

Table Ii (Breadth Of The Nail)

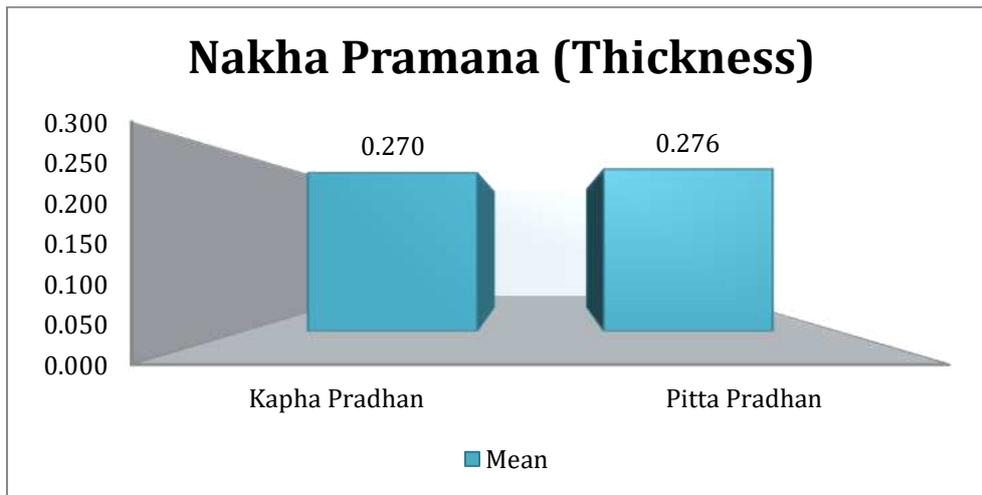
<i>Nakha Pramana</i> (Breadth)	N	Mean	Sd	Se	F-Value	P-Value	Result
<i>Kapha Pradhan</i>	13	8.419	0.936	0.209	0.986	0.380	Ns
<i>Pitta Pradhan</i>	13	8.679	1.198	0.275			
<i>Vata Pradhan</i>	24	8.877	0.998	0.218			



From Above Table, It Can Be Observed That, P-Value Is Greater Than 0.05. Hence, We Can Conclude That, There Is No Significant Difference In *Nakha Pramana* (Breadth) According To *Prakriti*.

Table Iii (Thickness Of The Nail)

<i>Nakha Praman (Thickness)</i>	N	Mean	Sd	Se	F-Value	P-Value	Result
<i>Kapha Pradhan</i>	13	0.270	0.130	0.029	0.523	0.595	Ns
<i>Pitta Pradhan</i>	13	0.276	0.151	0.035			
<i>Vata Pradhan</i>	24	0.236	0.122	0.027			



From Above Table, It Can Be Observed That, P-Value Is Greater Than 0.05. Hence, We Can Conclude That, There Is No Significant Difference In *Nakha Pramana (Thickness)* According To *Prakriti*.

8. Conclusion

Prakruti Is The One Of The Important Tools To Decide The Normal Physiology Of Human Body. The Makeup Of *Dhatu* Inside The Human Body Is Dependent On The Individual *Daihiik Prakruti*. The Respective Status Of *Dhatus* Is Responsible For The Normal Functioning Of Body. The *Acharyas* Have Mentioned Only Physical Attributes Of Nails In Different *Prakrutis* And There Is No Mention Of The Effect Of *Prakruti* On Length, Breath And Thickness Of Nails. So, The Theory Given By *Acharyas* On Physical Attributes Justifies Here. Thus, Null Hypothesis Is Accepted, Which Explains That There Is No Correlation Between The *Sharirik Prakruti* On Length, Breadth And Thickness Of Nails.

References

- [1] Dr. A. R. Sharma, *Susruta Samhita Of Maharsi Susruta Vol Ii*, Reprint Edition 2004, Choukhamba Surbharati Prakashan, Varanasi, Su. Sha 4/79-Page No. 64
- [2] Vd. Jadvaji Trikamji Acharya, *Charak Samhita Of Agnivesa (Chakrapanidatta)*, Reprint Edition 2000, Choukhamba Surbharati Prakashan, Varanasi, Cha. Su 7/39-40-Page No. 52
- [3] Dr. Shivprasad Sharma Editor, *Ashtanga Sangrah Samhita: Chaukhamba Prakashan, 2016, Sharir Sthan, Chapter 8, P328.*
- [4] *Charak Samhita*, By Shri Satya Narayana Shastri, Reprinted Year 2013, Chaukhamba Bharti Academy.
- [5] *Ayurvedic Kriya Sharir*, By Vaidya Ranjit Rai Desai Reprinted Shree Baidyanath Ayurveda Bhawan Limited 2015.

- [6] Baran R, Dawber Rp. Baran & Dawber's Diseases Of The Nails And Their Management. 4th Ed. Chichester: John Wiley & Sons; 2012. [Google Scholar]
- [7] Dr. Pooja Pandurang Patil, Dr.Abhaysingh Jaykumar Patil (2021). Descriptive Study Of Prakrutik Nakha Parikshan. *Ayushi International Interdisciplinary Research Journal*,8(1),31-32