AN OBSERVATIONAL STUDY OF *KHALITYA* IN DIFFERENT *DEHA PRAKRITI* WITH THE HELP OF HAMILTON NORWOOD SCALE

A thesis submitted to

Tilak Maharashtra Vidyapeeth, Pune

For the Degree of Doctor of Philosophy (Ph.D.)

In *Kriya Sharir* Subject (*Ayurveda*)

Under the Board of *Ayurveda* Studies

Submitted by

Dr. Vishnu Prasad J Sharma

Under the Guidance of
Prof. Dr. Mrs. Kalpana D Sathe

Submission Year 2017

An observational study of *Khalitya* in different *Deha Prakriti* with the help of Hamilton Norwood scale

A thesis submitted to

Tilak Maharashtra Vidyapeeth, Pune

For the Degree of Doctor of Philosophy (Ph.D.)

In *Kriya Sharir* Subject (*Ayurveda*)
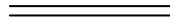
Under the Board of *Ayurveda* Studies

Submitted by

Dr. Vishnu Prasad J Sharma

Under the Guidance of
Prof. Dr. Mrs. Kalpana D Sathe

Submission Year 2017

Ph.D Thesis

Kriya Sharir

An observational study of *Khalitya* in different *Deha Prakriti* with the help of Hamilton Norwood scale

Submission

Year

2017

CERTIFICATE

       This is to certify that the thesis entitled **"AN OBSERVATIONAL STUDY OF *KHALITYA* IN DIFFERENT *DEHA PRAKRITI* WITH THE HELP OF HAMILTON NORWOOD SCALE"** which is being submitted herewith for the Degree of *VIDYAVACHASPATI* **(Ph.D.)** in *Kriya Sharir* of Tilak Maharashtra Vidyapeeth, Pune is the result of original research work completed by **Shri Dr. Sharma Vishnu Prasad** under my supervision and guidance. To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any degree or similar title of this or any other university or examining body upon him.

       The suggestions are incorporated in Draft thesis.

Place…………….

Date: ……………

<div align="right">

Research Guide

</div>

c) 03 Acknowledgement

Table of contents (Index)

Table of contents (Index)

d) 04 Chapter 1- Introduction

Ayurveda is one of the immense of ancient India to human being. It is one of the oldest scientific medical systems in the world with a long evidence of clinical experience. However it is not only the system of medicine in the congenital senses of curing diseases, it is also a way of life that teaches us how to maintain and protect health it shows us both how to make well a diseases and to make available good durability of life. Ayurveda treats human being as an entire which is an amalgamation of body, mind and soul. Hence it is sincerely a holistic and fundamental medical system.

Ayurveda has the system of medicine for whole concept of diseases and health. It is based on *Dosha, Dhatu* and *Mala* concept. Our lifestyle is hastily altering. Due to excessive follow of western life style and food habits, the equilibrium state of *Doshas* is rapidly disturbing results average life expectancy is going shorten and also as they are now prone towards the *Khalitya* (Baldness) in early age. Therefore it becomes clear that modern life style is making change in food, environment and drink which shouldn't be tolerated to maintain a good health. According to *Ayurveda* we can suggest to individual's good life styles, food and drink habits connecting to their *Prakriti* as well as for their hair safeguards accordingly individuals can judge the type of food and other habit to maintain his hairs in respect of *Prakriti.*

Vata properties like *Ruksha, Khara* and *Parusha* dominates in *Vata Prakriti* persons; therefore their hairs are affected with above qualities. These qualities may harm the hairs as well as scalp *'(Keshbhumi)'.* Possessing *Pitta Prakriti* persons have more *'Khalitya'* (hair loss) rather than other two *Prakriti* due to respective properties of *Pitta*.

Age factor may be responsible for *'Khalitya'* (hair loss). Therefore in the study according to age two groups are considered. Age groups are formed keeping in mind average life expectancy in India.

d) 04 Chapter 1- Introduction

Persons having more weight may be more prone from *'Khalitya'* due to less physical activates. So in the case of fatty persons, other *Dhatus, Updhatus* and their respective *Mala* do not grow to the extent, fat grows. In modern era people are becoming heavy weight so it was also to identify the relation between *'Khalitya'* (Baldness or hair loss) and average weight of volunteers.

Education factor effects of hair falling or not it was also to observe. Due to worry and anger *Vata* and *Pitta* increases in body and causes of hair loss. In both groups it was found that graduate and post graduates volunteers are more prone to hair falling.

Very few studies have been based on Norwood Scale gradation of baldness in India except in Gujarat State. An observational study of *Khalitya* in different *Deha Prakriti* with the help of Hamilton Norwood Scale is a first kind of study in India.

There were lacunae to understand nature and extent of hair loss in relation to *Prakriti* for that individual can use safeguards without doctor help. In above scenario this study was selected.

Ayurveda has specific identification of individuals on the basis of physical and mental constitution as *Prakriti*. In this present study, first of all we tried to assess observation & Identification of *Khalitya* (baldness) by Hamilton Norwood Scale and make assessment of the *Prakriti* of 240 healthy volunteers by *Darshan* (Inspection), *Sparsh* (touch), and *Prashna* (question) with a questionnaire. Samples were divided in two groups, according to age variable to observe actual effect of *Doshas* on *Prakriti* for *Khalitya* in relation to early and late changes in baldness. The questionnaire, which is prepared for the assessment of *Prakriti* based on distinctiveness described in standard textbooks of *Ayurveda*.

d) 04 Chapter 1- Introduction

An effort was made to compare of baldness grade according to different *Deha Prakriti* with statistically analysis.

The study designated on a scientific scale to examine the baldness as Hamilton baldness scale on which *Ayurvedic* theory of effecting from baldness can proved having higher presence of baldness in *Pitta Prakriti*.

At the end of study the severity of baldness was found greater in *Pitta Prakriti* rather than *Vata* and *Kapha Prakriti*.

It is also found that group B volunteers have higher percentage of baldness comparatively group A which shows effect of *Doshas* according to age, early and late changes in baldness.

e) 05 Chapter 2 Aim and Objectives

Aim

To assess the *Khalitya* on modern scientific scale parameters in different *Deha Prakriti*.

Objective

To define grade of baldness in different *Deha Prakriti*.

Hypothesis (*Deha Prakriti*)

H_0 (Hypothesis): Effect of *Deha Prakriti* on parameter of hair loss is significant.

H_1 (Null Hypothesis): Effect of *Deha Prakriti* on parameter of hair loss is not significant.

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

निरुक्ति :- क्लिश्+अन् =केश

केश word is used in *Ayurveda* for hair.

क्लिश्+अन् =केश

This *Dhatu* is used as क्लिश्यते क्लिश्नाति वा। [1]

केश स्थान = *Klish*, Un- The hair of the head [2]

शिरोरूह = केश:

According to *Aacharya Chakarpaani Shiroruha* word is used for as a synonym of hair [3] and the word *Shiroruha* means hair of the head as per dictionary [4]

Nature of *Kesha* in *Ayurveda*

Hair is factor derived from *Pitruj Bhava* (Paternal) in foetal body. As propounded by lord *Dhanvantari* describing parts of the foetal body originating that head hair, beards, moustaches and hard parts are the parts which originate from father. [5]

The foetus is produced from out of the father (from sperm). [6] Without father there is no possibility of conception and birth of viviparous creatures. There are some organs those organs which are derived from paternal source, (from sperm) and which are formed because of existence of the father.

They are hair of the head, hair of the face, nail, and small hairs of the body, teeth, bones, veins, ligaments, arteries and semen (These are the organs derived from paternal source).

A special growing nature of hair present in human being that the two- nails and hair- constantly grow by nature in spite of the wasting of body. [7]

5

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

Drastic effect of combing on hairs found that combing is good for hair and removes dust, louse and dirt. [8]

In case of use of poisoned comb there are falling of hair, headache, bleeding from passages and appearance of cysts on head. [9]

The dressing and cutting of hair, beard and nails adds the corpulence, libido, longevity, cleanliness and beauty. [10]

The mind and body together with the sense organs exclusive of '*Kesha*', small hair, tip of the nail, ingested food, excretory fluids and objects of senses are the sites of manifestation of happiness and miseries. The fact that hair etc. is excluded from the purview of consciousness can be ascertained from direct experience. [11]

After performing the rites for giving a name to the child he should be examined with a view to ascertaining the span of his life. Discrete, soft, sparse, unctuous, firmly rooted and black hair is signs and symptoms of children having a long span of life. [12]

Mahabhautic predominance in '*kesha*'(hair)

Body organs are dominated by one or other of the '*Mahabhutas*'. Organs which are gross, stable, having form, heavy, rough, and hard like nail, bone, teeth, flesh; skin, feces and hair are dominated by '*Prithvi*' [13]

'*Kesha*' is as '*Mala*' (waste product)

'*Kesha*' (big hair), and '*Loman*' (small hair) are '*Mala*' (waste product) of '*Asthi Dhatu*' a tissue element. [14]

'*Prakriti*' and hairs [15]

Vata:-

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

Hence persons born with the predominance of '*Vata Prakriti*' generally have hair and body which are cracked and dusky (Lustreless).

Pitta:-

Persons having predominance of '*Pitta*' have very keen thirst, hunger and have brown and scanty hair. They possess grey hair, wrinkles, and blue patches on the skin.

Kapha:-

Persons of '*Kapha Prakriti*' are mild in nature, big elevated chest, and big forehead, thick and blue hair, soft, even, well defined and good looking body.

Hair has little remaining physiologic importance, but great psychological significance.

Hair follicle:-
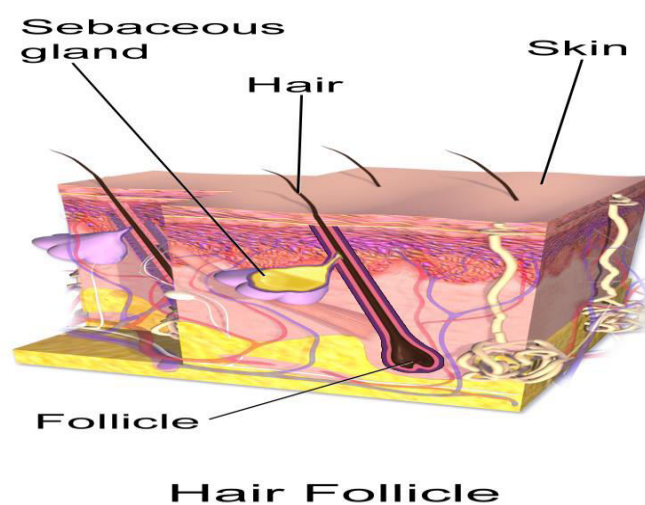
Hair Follicle

Figure No. 1

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

Hair Follicles and Hair

Hair shaft

Arrector pili muscle

Sebaceous gland

Apocrine sweat gland

Hair root

Hair bulb

Hair matrix

Hair papilla
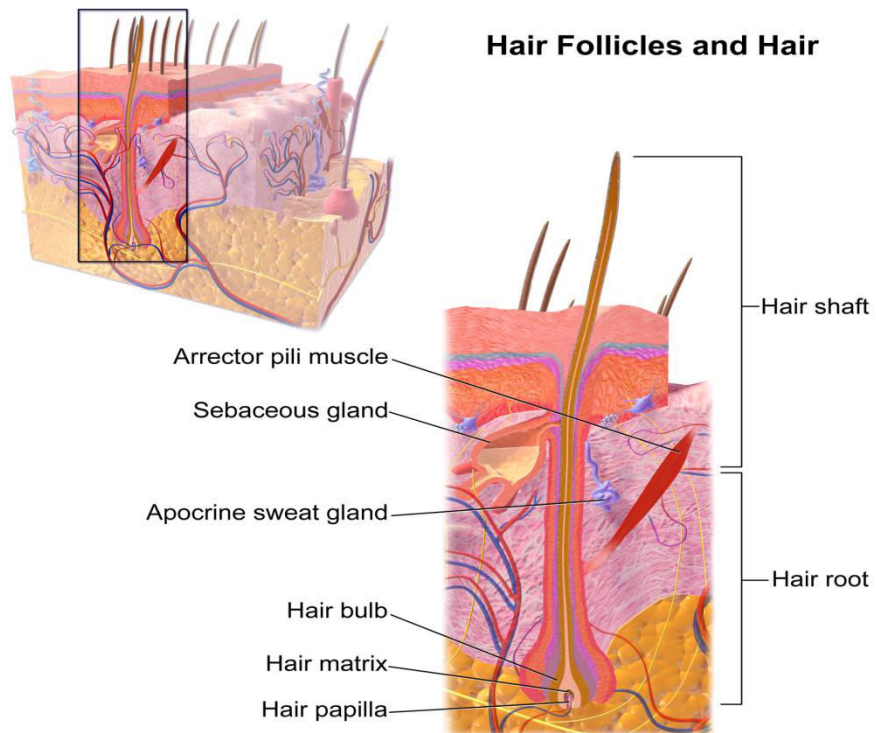
Figure No. 2

A hair follicle is a mammalian skin organ which yields hair. Hair production occurs in three phases, including growth (anagen), cessation (catagen), and rest (telogen) phases. Stem cells are responsible for hair production.

Structure:-

The papilla is a bulky structure at the base of the hair follicle. The papilla is made up mainly of connective tissue and a capillary loop. Cell division in the papilla is either rare or non-existent.

Matrix:-

Around the papilla is the hair matrix. It is a collection of epithelial cells frequently combined with the pigment-producing cells called Melanocytes. Cell division in the hair matrix produces the cells that form the major structures of the hair fiber and the inner root sheath. The hair matrix epithelium is one of the fastest growing cell

populations in the human being, which is why some forms of chemotherapy or radiotherapy, which exterminate dividing cells and may conduct to temporary hair loss. The papilla is usually pear or ovoid shaped. The matrix wraps completely around it, except for a short stalk-like connection to the surrounding connective tissue. This provides access for the capillary.

Root Seath:-

The root sheath is composed of an external and internal root sheath. The external root sheath emerges empty with cuboid cells when stained with H&E stain. The internal root sheath is composed of three layers, Henley's layer, Huxley's layer, and an internal cuticle layer which is continuous with the outermost layer of the hair fiber.

Bulge:-

The bulge is located in the outer root sheath at the insertion position of the arrector pili muscle. It houses several types of stem cells, which supply the entire hair follicle with new cells, and take part in healing the epidermis after a wound. [16]

Other Structures:-

Other structures associated with the hair follicle contain the cup in which the follicle grows known as the infundibulum, the arrector pili muscles, the sebaceous glands, and the apocrine sweat glands. Hair follicle receptors sense the position of the hair.

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

Hair follicle and other structures

Figure showing cross-section of skin with hair follicle and labeled structures: hair shaft, sweat pore, dermal papilla, Meissner's corpuscle (tactile corpuscle), stratum corneum, pigment layer, stratum germinativum, stratum spinosum, stratum basale, arrector pili muscle, sebaceous gland, hair follicle, papilla of hair, nerve fiber, blood and lymph vessels, sweat gland, Pacinian corpuscle, EPIDERMIS, DERMIS, SUBCUTIS (hypodermis), vein, artery.

Figure No. 3

Attached to the follicle is a tiny bundle of muscle fiber called the *arrector pili*. This muscle is liable for causing the follicle lasses to become more perpendicular to the surface of the skin, and causing the follicle to project slightly above the surrounding skin (piloerection) and a pore encased with skin oil. This process results in goose bumps (or goose flesh).

Also attached to the follicle is a sebaceous gland, which produces the oily or waxy substance sebum. The higher density of the hair, the more sebaceous glands there are found.

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

Hairless and hairy skin is found as below.

HAIRLESS SKIN	HAIRY SKIN
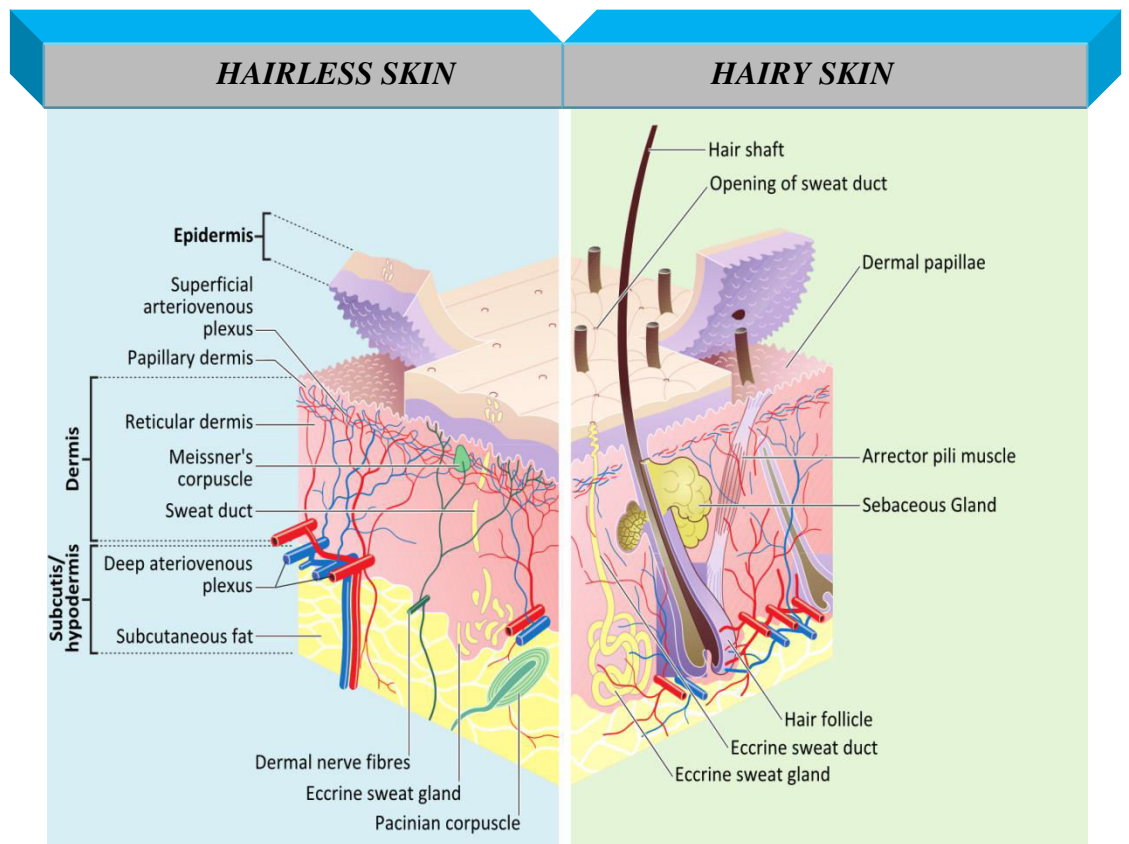
Figure No. 4

The establishment of a dermal papilla (DP) is vital to the development of all hair follicles. DP is a group of specialized dermal fibroblast cells. They are derived from the embryonic mesoderm. They aggregate in the dermis just below the epidermis.

The very first stages of hair follicle embryogenesis are shown in the figures below.

At stage 0; in figure No. 5 before hair follicle development, the epidermis and dermis are uniform. At stage 1, in figure No. 6 a few dermal fibroblast-like cells aggregate below the epidermis and the epidermal cells above the aggregation become larger. At stage 2 in figure No. 7 the epidermal cells start proliferating and push down into the dermis following the dermal papilla cells.

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

Stages of hair follicle embryogenesis
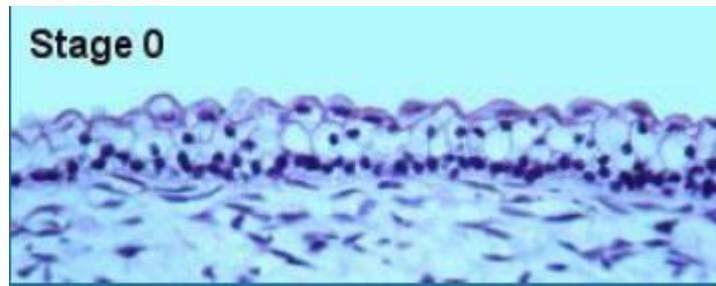
Figure No. 5
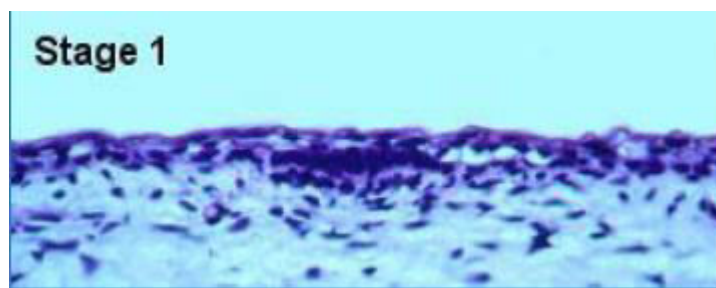
Figure No. 6
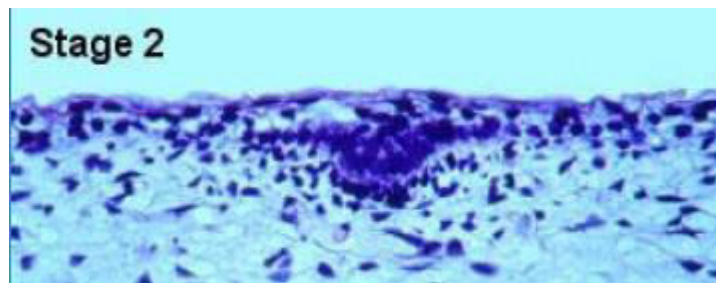
Figure No. 7

The dermal condensate signals the follicular epithelium (peg) to proliferate and grow down into the dermis. The dermal condensate becomes enveloped by the follicular epithelial cells and the Dermal Papilla is formed.

At least 7 different epithelial layers constituting the components of the mature hair follicle are formed.

At this time, 3 bulges appear on the follicle wall.
A. Upper forms APOCRINE glands in appropriate locations

B. Middle forms SEBACEOUS glands

C. Lower forms the important HAIR BULGE and is the site of arrector pili muscle attachment   Melanocytes become interspersed among the keratinocytes

As the epidermal plug penetrates down into the dermis mesodermal cells congregate around it. The mesodermal cells develop into a fibrous follicular sheath or collagen capsule to encase the epidermal cells.

Dermal Papilla

Cross Sectional Anatomy (center to periphery)
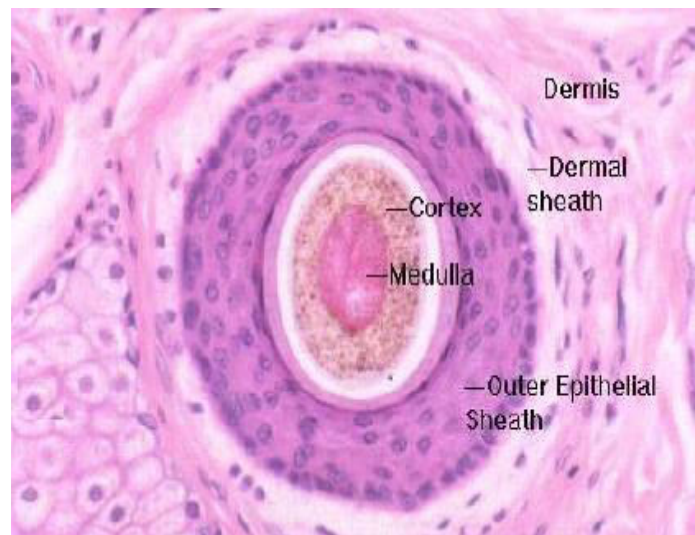
Figure No. 8

1. **Medulla:-**

    Found only in large terminal hairs, generated from matrix cells at tip of dermal papilla.

2. **Cortex:-**

    Thick layer of elongated keratinocytes formed from matrix cells. It makes up the bulk of the hair shaft and contains melanin granules.

3. **Hair Cuticle:-**

Single outer layer of imbricated keratinoytes (like roof tiles).

4. **Inner Root Sheath (IRS):-**

It is made up of 3 layers; does not contain melanin and formed from matrix cells (at periphery of follicle) in pace with the hair shaft.

It dictates the shape of the hair since it hardens (keratinizes) first. IRS cells are shed into the infundibulum as the hair shaft grows. The products of the sebaceous glands help to break down the IRS.

5. **Outer Root Sheath (ORS):-**

It is reservoir for melanocytes, epidermal cells that repopulate the epidermis after injury.

6. **Glassy or Vitreous Membrane:-**

A-cellular basement membrane bounding the entire follicle becomes grooved in catagen, therefore, can be used as marker of this phase.

7. **Fibrous Root Sheath:-**

This is the outermost layer continuous with the dermis.

Hair Growth Cycle:-

Hair grows in cycles of various phases: [17] anagen is the growth phase; catagen is the involuting or regressing phase; and telogen, the resting or quiescent phase. Each phase has several morphologically and histologically distinguishable sub-phases.

Follicular morphogenesis: - Prior to the start of cycling is a phase of follicular morphogenesis (formation of the follicle). There is also a shedding phase, or exogen, that is independent of anagen and telogen in which one of several hair that might arise from a single follicle exits. Normally up to 90% of the hair follicles are in anagen phase while, 10–14% are in telogen and 1–2% in catagen. The cycle's length varies on

different parts of the body. For eyebrows, the cycle is completed in around 4 months, while it takes the scalp 3–4 years to finish; this is the reason eyebrow hair have a much shorter length limit compared to hair on the head. Growth cycles are controlled by a chemical signal like epidermal growth factor. DLX3 is a crucial regulator of hair follicle differentiation and cycling. All animals (except Merino sheep & poodles) have hair those cycles between active (anagen), regression phase (catagen) & resting (telogen) states. Hair length is dependent on length of Anagen. Scalp hair has the longest anagen phase (3-7 years), eyebrows have the shortest anagen phase.

Follicular Morphogenesis
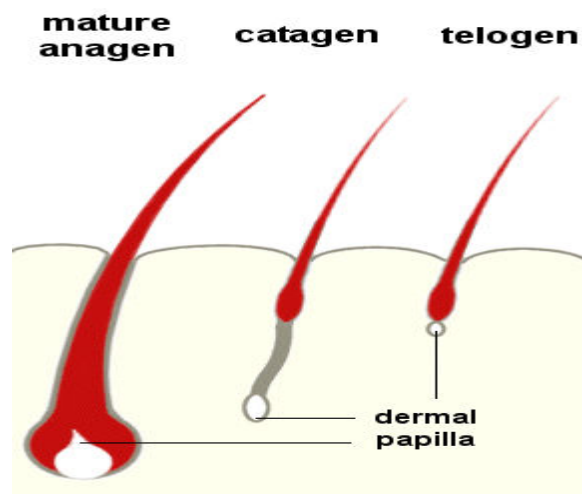
Figure No. **9**

Hair Growth Cycle Anagen

1. It is the growth phase.
2. The root of the hair is embedded deep in the dermis/subcutis.
3. Large and has pigment
4. Lasts for 2-7 years

80-90% of scalp hair is in growing phase. Unclear what physiologic events stimulate growth assumed that factors from the dermal papilla regulate anagen onset.

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

Anagen is the active growth phase of hair follicles [18] during which the root of the hair is dividing rapidly, adding to the hair shaft. During this phase the hair grows about 1 cm every 28 days. Scalp hair stays in this active phase of growth for 2–7 years and is genetically determined. At the end of the anagen phase an unknown signal causes the follicle to go into the catagen phase.

Hair Growth Cycle Catagen

1. Regression phase
2. Hair does not grow
3. Moves closer towards the epidermis
4. Takes the form of a club hair
5. Lasts about 2-3 weeks

The catagen phase is a short transition stage that occurs at the end of the anagen phase. [19]

It signals the end of the active growth of a hair. This phase lasts for about 2–3 weeks while the hair converts to a club hair. A club hair is formed during the catagen phase when the part of the hair follicle in contact with the lower portion of the hair becomes attached to the hair shaft. This process cuts the hair off from its blood supply and from the cells that produce new hair. When a club hair is completely formed, about a 2-week process, the hair follicle enters the telogen phase.

Only 1% of follicles in this stage lives. Mitosis ceases in the matrix and the cells keratinize forming a club hair than apoptosis occurs now melanocytes stop producing pigment. Melanocytes withdraw their dendrites so the club end of the hair is not pigmented.

Hair Growth Cycle Telogen

1. Resting phase

2. Hair can now be considered dead
3. It will fall out
4. Gets smaller and lighter
5. Moves towards the epidermis
6. Pushed out by new hair growing in
7. Lasts 3 months

The telogen phase is the resting phase of the hair follicle. When the body is subjected to extreme stress, as much as 70 percent of hair can prematurely enter a phase of rest, called the telogen phase. This hair begins to fall, causing a noticeable loss of hair. This condition is called telogen effluvium. The club hair is the final product of a hair follicle in the telogen stage, and is a dead, fully keratinized hair. [20] Fifty to one-hundred club hairs are shed daily from a normal scalp.

The period of complete telogen is (inactivity) lasts about 100 days (3 months) in the scalp. 5-10% of follicles scalp loses 100-150 telogen hairs a day, which is only a small percentage of the total of hairs in this phase. Club Hair either falls out during telogen or is pushed out by new hair growth during the next anagen phase.

<u>Control of Hair Growth Hormones Androgens</u>:-

The most important hormonal regulators act through receptors in the dermal papilla. They raise the length of anagen, diameter, and growth rate in susceptible follicles. Paradoxically cause shorter anagen time, miniaturization, and slower growth in areas such as the scalp. Axillary & Pubic hair respond to testosterone, rest of body hair only responds to DHT made by 5-alpha reductase. Estrogen prolongs anagen phase but decreases the growth rate and responsible for the post-partum telogen effluvium. Thyroxin advances onset of anagen increases growth rate. Excesses can be stressful and lead to telogen effluvium. Deficiency can do the same in addition to slowing growth rate.

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

References: - f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

1. शिवराम आप्टे / सन्स्कृत हिन्दी शब्दकोष / कमल प्रकाशन-नई दिल्ली / 1986 / ISBN NO. 8189755/ 16

2. Sir Monier Monier- Williams / Sanskrit English dictionary / Volume-1/Motilal Banarsidas publishers private limited Delhi /1955/310

3. वैद्य जयदेवजी त्रिकमजी आचार्य /च. चि.26/132/606/ चरक संहिता- आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2009/

4. शिरोरूह्राणामिति केशानाम् / Sir Monier Monier- Williams / Sanskrit English dictionary /1451/Volume-2/ Motilal Banarsidas publishersprivate limited Delhi /1955/

5. तत्र गर्भस्य पितृजमातृजरसजात्मजसत्त्वजसात्म्यजानि शरीरलक्षणानि व्याख्यास्याम:। गर्भस्य केशश्मश्रुलोमास्थिनखदन्तसिरास्नायुधमनीरेत: प्रभृतीनि स्थिराणि पितृजानि, / वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 3/33/354/ सुश्रुत संहिता-डल्हण टीका /वाराणसी / चौखम्बा सुभारती प्रकाशन/2008

6. पितृजश्चायं गर्भः। नहि पितु:ऋृते गर्भोत्पत्ति: स्यात्, न च जन्म जरायुजानाम्। यानि खल्वस्य गर्भस्य पितृजानि, यानि चास्य पितृत: संभवत: संभवन्ति, तान्यनुव्याख्यास्याम:; तद्यथा- केशश्मश्रुनखलोमदन्तास्थिसिरास्नायुधमन्य: शुक्रं चेति (पितृजानि) / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा.3/7/310/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

7. शरीरे क्षीयमाणेऽपि वर्धेते द्राविमौ सदा ।

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

स्वभावं प्रकृतिं कृत्वा नखकेशाविति स्थिति: ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/61/360/ सुश्रुत संहिता-डल्हण टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2008/

8. केशप्रसाधनी केश्या रजोजन्तुमलापहा ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.चि 24/29/488/ सुश्रुत संहिता-डल्हण टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2008/

9. केशशात: शिरोदु:खं खेभ्यश्च रूधिरागम: ।
ग्रन्थिजन्मोत्तमाङ्गेषु विषजुष्टेऽवलेखने ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.क. 1/56/562/ सुश्रुत संहिता-डल्हण टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2008/

10. पौष्टिकं वृष्यमायुष्यं शुचि रूपविराजनम्।
केशश्मश्रुनखादीनां कल्पनं संप्रसाधनम् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू. 5/99/43/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

11. वेदनानामधिष्ठानं मनो देहश्च सेन्द्रिय: ।
केशलोमनखाग्रान्नमलद्रवगुणैर्विना ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा.1/136/299 / चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

12. वृत्ते च नाम कर्मणि कुमारं परीक्षितुमुपक्रमेतायुष: प्रमाणज्ञानहेतो: ।
तत्रेमान्यायुष्मतां कुमाराणां लक्षणानि भवन्ति। तद्यथा- एकैकजा मृदवोऽल्पा: स्निग्धा: सुबद्धमूला: कृष्णा: केशा: प्रशस्यन्ते, / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 8/51/350/ चरक संहिता-आयुर्वेद दीपिका-चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

13. तत्र यद्विशेषत: स्थूलं स्थिरं मूर्तिमद्गुरुखरकठिनमङ्गं नखास्थिदन्तमांसचर्मवर्च:केशश्मश्रुलोमकण्डरादि तत् पार्थिवं गन्धो घ्राणं

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

च । / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 7/16/339/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

14. किट्टमन्नस्य विण्मूत्रं, रसस्य तु कफोऽसृज:।

पित्तं, मांसस्य खमला, मल: स्वेदस्तु मेदस: ॥

स्यात्किट्टं केशलोमास्थ्नो, मज्ज: स्नेहोऽक्षिविट् त्वचाम् ।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. चि.15/18-19/515/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

15. प्रायोऽत एव पवनाध्युषिता मनुष्या दोषात्मका: स्फुटितधूसरकेशगात्रा:।/ प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ./शा./3/85/413/ अ. हृ./ वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / प्रथम वोल्युम / 2013/

पित्तं वह्निर्वह्निजं वा………………………………।

गौरोष्णाङ्गस्ततम्रहस्ताङिध्रवक्र: शूरो मानी पिङ्गकेशोऽल्परोमा ॥ / प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ./शा./3/90/414/अ. हृ./ वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / प्रथम वोल्युम / 2013/

&

मेधावी प्रशिथिलसन्धिबन्धमांसो……………………………।

आवास: पलिततरङ्गनीलिकानां भुङ्क्तेऽन्नं मधुर कषायतिक्तशीतम् / प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ./शा./3/92/415/अ. हृ./ वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / प्रथम वोल्युम / 2013/

प्रियङ्गुदूर्वाशरकाण्ड……………………………।

प्रलम्बबाहु: पृथुपीनवक्षा महाललाटो घननीलकेश: ॥ / प्रो. के. आर. श्रीकान्त मूर्ति/ अ. हृ./शा./3/97/416/ / अ. हृ. / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / प्रथम वोल्युम / 2013/

f) 06 Chapter 3 Review of Literature *Kesha* (Hair anatomy and physiology)

16. Epithelial Stem Cells: a folliculocentric view/ Journal Of Investigative Dermatology/ Cotsarelis G/126(7)/ 1459-68/ PMID16778814./2006

17. Controls Of Hair Follicle Cycling/ Physiological Reviews/ American Physiological Society/81(1)/ 449-494/PMID 11152763/2001

18. Anagen Phase/ Brannon, Maryland, Heather/ the New York Times. Retrieved 14-11-2007

19. Anagen Phase/ Brannon, Maryland, Heather/ the New York Times. Retrieved 14-11-2007

20. The biology of hair follicles/ New England Journal Of Medicine/ Paus R; Cotsarelis G/ 341(7)/ 491-497/ PMID 10441606/ August 1999/

g) 07 Chapter 4 Review of Literature *Keshbhumi* (Scalp anatomy and physiology)

Ayurveda has not a large detail of *Keshbhumi*. It is used as the origin place of *Kesha* (Hair). *Aacharya Charka* used this word in chapter of *Trimarmiyachikitsa* as place of *Khalitya* and described that *Teja (Pitta)* of our body in taking part with *Vata* and other *Doshas* scorches up the *Keshbhumi* (Scalp) giving instantaneous rise to *Khalitya* in males. Weather there is partial scorching than this gives rise to premature graying hair. [1]

Scalp [2]

Defination:-

The soft tissues covering the cranial vault form the scalp.

Extent:-

Anteriorly supraorbital margins

Posteriorly External occipital protuberance and nuchal lines Each Sides Superior temporal lines

Structure:-

The scalp is made up of five layers.

1. Skin
2. Super facial Fascia
3. Deep Fascia
4. Loose areolar tissues
5. Pericranium

Skin:-

The skin is thick and hairy. It is adherent to the epicranial aponeurosis through the dense superficial fascia, as in palm and sole.

Figure No. 1

Superfacial Fascia :-

It is more fibrous and dense in the center than the periphery of the head. It binds the skin to the subjacent aponeurosis, and provides the proper medium for passage of vessels and nerves of the skin.

Deep Fascia: -

Occipital frontalis muscles have two bellies, Occipitalis and frontalis, both of which are inserted in to the epicranial aponeurosis. The epicranial aponeurosis or galena apponeurotica is free movable on the Pericranium along with the overlying and adherent skin and fascia.

Fascia
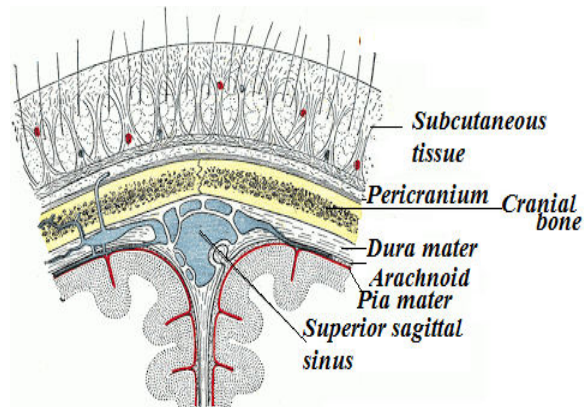
Figure No. 2

23

Loose areolar tissues: -

It is the fourth layer of the scalp. It extents anteriorly eyelids and posteriorly highest and superior nuchal line and on each line the superior temporal line.

Pericranium:-

It is the fifth layer of the scalp. It is loosely attached to the surface of the bones but it is firmly adherent to their structures where the sutural ligaments bind the pericranium to the endocranium.

Applied:-

1. Because of the abundance of sebaceous glands, the scalp is common site for sebaceous cysts.

2. Since the blood supply of the scalp and the superficial temporal region is very rich; avulsed portion need not be cut away. They can be replaced in position and stitched; they usually take up and heal well.

3. Wounds of scalp bleed profusely because the vessels are prevented from retracting by the fibers fascia. Bleeding can be arrested by applying pressure against the bone.

4. Because of the density of fascia, subcutaneous hemorrhages are never extensive and the inflammation in this layer cause little swelling but much pain.

5. The layer of loose areolar tissue is known as The danger area of the scalp because of the emissary veins, which open here may transmit infection from the scalp to the cranial venous sinuses.

6. Collection of the blood in the layer of lose connective tissues cause generalized swelling for the scalp the blood may extent anteriorly in to the root of the noose and in to the eyelids causing black eyes.

7. Wounds of the scalp do not gape unless the epicranial aponeurosis is divided transversely.

8. Because of the pericranium is adherent to sutures collection of fluid deep to the pericardium known as cephalhaenatoma taking the shape of the bone concerned.

Arterial supply of the scalp:-

(Front of auricle)

> 1. Supratrochlear
> 2. Supraorbital
> 3. Superfacial temporal Artery

(Behind of the auricle)

> 1. Posterior auricular artery
> 2. Occipital Arteries

Thus the scalp has a rich blood supply derived from both the internal and external carotid arteries. The two systems anastomosing over the temple

Venous drainage:-

The veins of the scalp accompany the arteries and have similar names. Supratrochlear, Supraorbital- both veins continue down as the facial vein.

Super facial temporal veins drain in internal jugular vein.

Posterior auricular, Occipital vein drainage external jugular vein.

Emissary veins connect the extra cranial veins with the intracranial Venus sinus to equalize the pressure. The extra cranial infections may spread through these veins to intracranial venous sinus.

Lymphatic Drainage:-

g) 07 Chapter 4 Review of Literature *Keshbhumi* (Scalp anatomy and physiology)

The anterior part of scalp drains in to the pre auricular or parotid lymph nodes. The posterior part of the scalp drainage in to the posterior auricular or mastoid and occipital lymph nodes.

<u>Nerve Supply</u>:-

The scalp supplied by ten nerve of each side. Out of these five nerves (Four sensory and one motor) enter the scalp in the front of auricles and the remaining five nerves (again four sensory and one motor) enter the scalp behind the auricle.

<u>References</u>

g) 07 Chapter 4 Review of Literature (Scalp anatomy and physiology)

1. तेजोऽनिलाधै: सह केशभुमिं दग्ध्वाऽशु कुर्यात् खलतिं नरस्य ।डो. रामकरण शर्मा एवं वैद्य भगवानदाश / चरक संहिता चि./ 26/132/509/चरक संहिता /वोल्युम 4/ वाराणसी/चौखम्बा सन्स्कृत सीरीज ओफिस प्रकाशन/ 2013/

2. Human Anatomy- Volume 3/ B D Chaurasia's/Foirth edition/CBS publishers & distributors/ New Delhi/2006

h) 08 Chapter 5 Review of Literature *Prakriti*

According to *Ayurveda* every individual is unique. Not only each individual has different mass and profile but its physiological and even psychological characters are dissimilar. This is because they have predominant *Panchmahabhuta*, *Dosha* or *Triguna* at the time of birth which decides their *Prakriti* (constitution) of an individual. Once this *Prakriti* (constitution) is established, it is stable for that individual. Once this predominance is decided, every tissue, every organ and every system in the body has this mark or predominance in them and hence they function according to this predominance.

If proper care is not taken then this delicate predominance may lead to certain diseases, this is because of *Prakriti* or constitution of an individual. According to this predominance every individual needs certain type of food, drinks, and behavior to keep him healthy and fit [1] Therefore each individual must know his own *Prakriti* so that he can take reverse qualities of food, drinks, etc. to keep him healthy. Such of the diets and regimen, as stand in contradistinction with the *Doshas* responsible for the production of the particular *Prakriti* (Body constitution) are prescribed for the upholding of good health.

Hence *Ayurvedic* physician makes an attempt to identify with *Prakriti* of each and every healthy persons and their patient so that proper guidance of health can be given to them. *Prakriti* is also important for making correct diagnosis of the diseases, for giving appropriate *Rasayana* or other ayurvedic therapies to the patient.

Formation and Etymological Root of word *Prakriti*:

The term '*Prakriti*' is formed by three words [2]

प्र +कृ +क्लिन् (कर्तरी क्लिच् भावादौ क्लिन् वा)

The etymological derivation of word '*Prakriti*' signifies human nature means '*Swabhavikrup*' [3] or nature of the individual as natural state. Each and every individual in the world born with some physical and mental

peculiarities which remain with him through out of life such as peculiarities that are acquired by birth are called *Prakriti* or temperament of an individual.

Dominance of *Vatadi* from the birth is *Prakriti*. [4]

There are numerous meanings of the *Prakriti* in different literature like *Samhita, Ayurvediya Mahakosha, Upnishada, Purana, Vangamaya, Shabdakalpadruma, Vachaspastyam, Amarkosha, Sankhyadarshana,* but here our research project is about *Shukrashonita Dehaprakriti*.

Prakriti related to the *Sharirik Dosha* is called *Dehaprakriti* [5]

Definition and Formation of *Prakriti*:

Aacharya Charaka coated that out of these *Prakriti* whichever is dominated by one or more *Dosha* indicates an unhealthy '*Prakriti*' [6] only such '*Prakriti*' is supposed to be healthy in which all the three *Sharirik Dosha* i.e. *Vata, Pitta* and *Kapha* are in balanced. The *'Samadhatu' Prakriti* is one, in which it resembles the good health and wealth. His estimation that '*Prakriti*' like *Vatala* should better be called '*Vikriti*' or '*Dosha Prakriti*'. It is difficult to discover someone with *'Samaprakriti'*. Hence only that may be considered as '*Prakriti*', therefore it is not proper to call *Vatala* or *Pittala* as *Prakriti*. But even then in general sence or even in *Ayurveda*, word '*Prakriti*' is used for *Vatala* or *Pittala* etc.

Some persons maintain the equilibrium of *Vata, Pitta* and *Kapha* from the very time of conception; some are dominated by *Vata*, some by *Pitta* and some by *Kapha.*

Those of the first category who has equilibrium of *Dosha* are not prone to diseases and the rest of them are always likely to undergo, the body constitution *(Deha Prakriti)* of persons is named according to the predominance of respective *Dosha.*

h) 08 Chapter 5 Review of Literature *Prakriti*

There is an impression of *Dosha (Vata, Pitta, and Kapha)* on the *'Prakriti'* which are situated at the time of conception (There is an impression of *Dosha* on *Prakriti* or not it will also a hypothesis in our research project). It remains the same till the death.

Ultimately *Prakriti* is defined as the group of characters present at conception by an individual form the *Shukra* (Spermatozoon) and *Shonita* (Ovum) of the parents depending upon the predominance of *Dosha* or *Doshas* prevailing at the time of sexual intercourse.

Formation of the *Prakriti:*

1. Formation of *Prakriti* as stated by *Aacharya Charaka:-*

Aacharya Charaka has assumed that the formation of *Prakriti* depends on one, two or more dominant *Dosha* and to these respective *Dosha, Garbha* is related. Later the *Prakriti* developed during *Garbha* formation is called as '*Doshaprakriti.*' [7]

At the time of conception, in certain individuals, there is equilibrium of *Vata, Pitta and Kapha*; some are dominated by *Vata (Vatala)*; some are dominated by *Pitta (Pittala)*; some are dominated by *Kapha (Sleshamala)*; some are dominated by two *Doshas* i.e. by *Vata-Pitta, Vata-Kapha* and *Pitta-Kapha*.

Out of these categories individuals of the first category (equilibrium state of *Doshas*), by nature keep a normal health.

Those belonging to other categories (single or in combination of two *Dosha*) always suffer from one or the other of the bodily defects, although they might apparently be having normal health. For example, even if a person is healthy, but if he is by nature dominated by *Vata*, he will be prone to the cracking of the different parts of the body. This happens because; the very normal condition of the health of such individuals is dominated by the one or the *Dosha*. Such individuals are said to have normal health, because their body conditions are absolutely normal, but they are prone to diseases in respective predominant *Dosha* which they have it since birth.

h) 08 Chapter 5 Review of Literature *Prakriti*

It has been stated by great *ayurvedic* surgeon *Sushruta* "The *Doshas* relating to the natural conditions of the body *(Prakriti)* get never enhanced, transformed or diminished except in the cases of declining individuals". [8]

But then if one possessing equilibrium of *Doshas* or one dominated by *Vata* is subjected to diseases like *Khalitya* caused by the vitiation of *Pitta*, naturally the original *Pitta* is enhanced. Similarly if one dominated by *Pitta* suffers from diseases due to vitiation of *Pitta*, the bodily natural condition of the body *(Prakriti)* having equilibrium of *Doshas* suffer from diseases caused by the diminution of one of the *Doshas*, then the *Doshas* responsible for the care of the natural state of the body *(Prakriti)* are diminished.

If diseases similar to the natural body condition *(Prakriti)* occur, the enhancement is found not in the *Doshas* relating to natural body condition but in the *Doshas* caused by some extraneous factors.

The *Dosha* which is responsible for the causation of *Prakriti* is different from the *Dosha* subsequently vitiated to cause the diseases. *Doshas* of the former category do not play any direct role in the creation of the diseases. The testimony of great *Aacharya Charaka* given underneath corroborates this view. "When a *Dosha* is joined with homologous seasons, tissue elements and *Prakriti*- natural condition of the body, it becomes too powerful to be contested and as such causes the diseases known as *SANTATAM*: this is very difficult to be tolerated. [9]

Thus a being of *Vata Prakriti* suffers from diseases caused by *Pitta* the original physical condition dominated by the *Vata* remains absolutely unaffected causing as it does the cracking in hands and feet; it is neither amplified nor diminished.

Doshas are responsible for the creation of *Prakriti*, which neither gets aggravated, nor changed, nor diminished. So an individual possessing the physical constitution, caused by the equilibrium of *Doshas* at the time of conception cannot imbibe the qualities of individuals having other *Prakritis*. This applies to all other *Prakritis* in general.

h) 08 Chapter 5 Review of Literature *Prakriti*

The *Doshas* aggravated at the time of conception do influence the embryo but they do not all together impair the productivity of sperm and ovum. If however the *Doshas* are too much aggravated, they might even impair the productive power of the sperm and ovum both or one, causing thereby entire obliteration of the embryo. This all depends upon the extent of vitiation of the concerned *Doshas*.

2. Formation of *Prakriti* as stated by *Aacharya Sushruta*:-

Prakriti is formed by the dominant *Dosha* at the time of *Shukra-Shonita Samyoga*. [10]

Dosha predominance, at the time of union of male and female gamete, forms the *Prakriti*. For example, at the time of fusion if, *Pitta Dosha* is predominant (qualitatively and quantitatively) compared to *Vata and Kapha,* then we say the individual have *Pittaja Prakriti*. That particular predominant *Pitta Dosha* affects the physiology and anatomy of that particular subject. Characters are seen according to properties and functions of *Vata Dosha*.

Not only mother but also father's *Ahara-vihara* affects the *Garbha-Prakriti*. Not only the sex but also color of the healthy offspring can desire by the parents and for that, some different types of procedures have been told by the great *Aacharya Sushruta.*

As the creature originating in poison cannot be affected by poison, correspondingly the *Prakriti* also cannot be affect life and later it becomes the identity of particular being. [11] The dominant *Doshas* at the time of conception do not affect the body at a later stage as they compose the very nature of the body. And so, being in separately related to the body, they, in themselves do not cause any body defects. As great *Aacharya Sushruta* states "As an insect produced out of the poison, does not die of his own poison, so the body is not too much affected by the *Doshas* responsible for causing its constitution at the time of conception".

h) 08 Chapter 5 Review of Literature *Prakriti*

3. Formation of the *Prakriti* as stated *Aacharya Vagbhata*:-

The dominance of *Dosha* on' *Prakriti*' is determined by these like the male and female gametes, the *Karma* of individual's *Jivatma* during previous life, the diet and desires of mother, the condition of uterus and period. [12] Depending on the *Dosha* that is predominant in the *Shukra* (semen or the spermatozoon to be more specific), and *Aashrik* (menstrual blood or the ovum to be more specific) at the time of their union, in *Bhojya* (food), *Chesta* (activities) of the *Garbhini* (pregnant women), *Garbhaasaya* (uterus) and *Ritu* (season, time period of ovulation) seven kind of *Prakriti* are produced.

Prakriti-Utpadaka Bhava :-

Factors influential the *Prakriti*:-

The *Prakriti* of the being (to be born) is determined at the time of its conception. According to *Charaka* the following factors which determined the *Prakriti* of the child are. [13]

> a) *Shukra – Shonita Prakriti*
>
> b) *Kala –Garbhashaya Prakriti*
>
> c) Mother's *Ahar- vihar Prakriti*
>
> d) *Mahabhut- Vikara Prakriti*

1. *Shukra Shonita Prakriti:-*

The status of *Dosha* in the *Shukra* (spermatozoon) of the father and *Shonita* (ovum) of mother at the time of conception is.

Garbhotpatti is the ultimate *Karma* of *Shukradhatu* in *Saptadhatwadi*. [14] In male the '*Garbhasambhava Bhava'* is called as *Shukra* and in female it is called as '*Artava*'. *Shukra and Shonita* are supposed to be representatives of mother and father's *Sarira* in '*Garbha'*. *Shukra* is present in all the '*Sukshma Avayava'* of the body so called as '*Sarvasarirvyapi*', *Sarvatranugatam* [15] *Kritsnadehaashritam*. [16]

h) 08 Chapter 5 Review of Literature *Prakriti*

Artava is also called as *Shukra* by some Aacharyas. [17] But 'Garbhaotpatti' is the common function of both *Shukra* and *Artava*. In *Shukra* and *Artava* the '*Sukshma Avayava*' of father and mother are situated respectively. Therefore several Childs resemble their father and several of their mothers.

2. ***Kala Garbhasaya Prakriti:-***

>   (a) *Kala- Dosha* predominance for the period of foundation of pregnancy
>   (b) *Garbhasaya-* The state of the uterus throughout the pregnancy period.

The great *Aacharya* included *Sambhogakala, Garbhadharana -kala* and the situation of *Doshas* in uterus according to the age of mother and father in *Kal-Garbhashaya Prakriti*.

Aacharya Gangadhara had his explanation regarding *Kalgarbhashaya Prakriti* as follows: - [18]

i)   ***Sambhogakala:***

The procedure for the fusion of *Shukra* and *Shonita* is called as *Sambhoga* and the time at which it takes place it is called as '*Sambhogakala*'. It is divided in two types i.e. *Nindyakala* and *Anindyakala*. Aacharya *Charaka* has stated it briefly in *Sarirasthana*. [19]

ii)   ***Garbhadharana Kala:***

There is an impact of *Dosha* on *Vaya*, *Ahoratri*, *and Bhuktakala* according to *Anta*, *Madhhya* and *Aadi* respectively. [20] They are predominant, respectively, during the last, middle and first stages of the life, the day, the night and the food. *Vata* is predominant in old age around after 60 years of age, in the afternoon around between 3 pm and 7 pm, late night around 2am to 6 am and at the end of digestion of the food. *Pitta* is predominant in the middle age, midday and midnight and during the middle period of digestion. *Kapha* is predominant in early

age, in forenoon, in the early part of night and the early period of digestion.

'Ritu' is divided in *Aadankala* and *Visargakala*. [21] There is an impact of these *Ritu* on the body [22] and the *Dosha* get imbalanced. Hence at the time of conception there is an impact of this *Kala* on '*Garbha*'. There is also an impact of day and night on *Garbha*. Thus it is stated by great *Aacharya Charaka* that in the commencement of the stage of emission and the end of stage lack of moisture, weakness prevails in human beings. In the middle of the both strength becomes moderate however at the end of the period of emission and beginning of the period human beings get considerable amount of strength.

The theory mentioned above is absolutely simple. One who has gained enough strength during the last season of the *Visarg Kala*- period of emission will not together looses it during the first season of the *Aadan Kala* (period of absorption) even though weakening process has already started. For example, the night starts getting shorter during the months of January February and March it is still longer than the day by virtue of its having gained considerable length towards the close of December January. All these circumstances affect to *Garbhadhan*.

iii)   **Age of mother and father:**

According to the age of father and mother, the *Vatadi Doshas* are naturally present in the body. There is an impression of *Dosha* on *Vaya* according to *Anta*, *Madhhya* and *Aadi* respectively. [23] So like this age ultimately affects the *Shukra* and *Shonita* in which period they situate. *Shukra-Shonita* are responsible for conception, therefore indirectly the age also affects the *Garbha*. Thus these three *Kala* are related to be uterine *Dosha*. Hence it affects the *Shukra* and *Shonita* and eventually the *Garbha* aslo.

h) 08 Chapter 5 Review of Literature *Prakriti*

Kal-garbhashaya Prakriti is supposed to be one of the causes of *Dosha-Prakriti.*

3. *Maturahara Vihara Prakriti:-* Mother's *Ahara-Vihara Prakriti* :

The diet and behavior of the mother for the duration of pregnancy will have an impression on the body and mind of the being that she is going to deliver.

Mother's *Ahara and Vihara* affects the *Prakriti* of *Garbha.* [24] [25] e.g. if the mother have addiction to the intake of excessive salt this makes the offspring suffer from early commencement of wrinkles in the skin, graying of hairs and baldness, [26] like this the mother do quarrels in pregnancy period; her child will also do quarrels in his future life. Food and regimens of the mother which aggravate *Doshas* at the time also determine the physical constitution. The *Doshas* which ultimately emerge at dominant factors actually determine the *Prakriti* or the physical constitution in individuals. If mother is constantly given to grief, this makes fearful, thin, and short lived. [27] Stealing addiction of the mother also have affect *Garbh Prakriti* and it makes the offspring exceedingly lazy, malicious and of inactive disposition. [28] Also if mother eats *Yavagu* at the eighth month of pregnancy period, her child's eyes will get *Pingala* in color. [29]

4. *Mahabhuta – Vikara Prakriti* :

The dominance of *Mahabhuta* for the duration of pregnancy period will affect the *Prakriti* of an individual. As example-

- If the *Prithvi* and *Jala Mahabhuta* are predominant, then the child will be of *Vata Prakriti*.

- If *Agani* and *Jala Mahabhuta* are predominant, than the *Prakriti* will be of Pitta.

- If *Vayu* and *Akasha Mahabhuta* are predominant, then the child will be of *Kapha Prakriti*.

h) 08 Chapter 5 Review of Literature *Prakriti*

Aacharya Gangadhara has illustrated the *Mahabhuta Vikara Prakriti* in following manner:-

When *Bhutatma* combines with the *Matrujadi Bhava* it appears live and when the *Sukshma Mahabhuta* combines with the same it results in the increase in the *Shukrashonita Samyogaja Mahabhuta*. [30]

The quantitative dominance resulted by such increase is established due to *Sukshma Dosha* of *Bhutatma*, that the *Dosha* are created according to the role of *Panchamahabhuta* and the quantitative presence of *Panchamahabhuta* in the *Dosha* itself.

Aacharya Charaka, apart from the above 4 factors, has also referenced 6 (six) other factors which determinate the *Prakriti* of the human being. [31] He coated that-It is said that the *Prakriti* is under the influence of 6 (six) factors i.e. *Jatipraskta, Kulapraskta, Deshapraskta, Kalapraskta, Vayapraskta,* and *Pratyaatmapraskta* i.e. the nature and type of *Prakriti* is dependent on these factors.

a)   ***Jatipraskta Prakriti* : (Racial Peculiarities)**

The *Prakriti* of a being who is born in specific *Jati* depends on the *Sanskara* (attitudes) of its specific *Jati* and this *Prakriti* is said to be *Jatiprasakta*.

This implies to the race of the individuals. As example, Negros and West indies are black and hyper pigmented while people of western races look like copper color skin and eyes etc. Chinese and Nepalese are generally born with stunted nasal bridge.

b)   ***Kulapraskta Prakriti***: (Familial Peculiarities)

Some families have some sort of peculiarities like-Less or more height. It also affects the *Prakriti*.

The *Guna* and *Dosha* formed in a being born in particular *Kula* are assessed under the course of *Kulpraskta Prakriti*. The contamination of *Raja and Shukra* may cause some disease like

h) 08 Chapter 5 Review of Literature *Prakriti*

Arsha, Prameha, Kushtha, Amavata, Apasmara, Yakshma, Sandhivata, Swasa, and Raktastrava which are inherited from father or mother. These above mentioned diseases are called as *Kulaja* or *Adibalapravrutta*.

c)   **Deshanupatini Prakriti:** (Habitual peculiarities)

The natural variations of the region or locality like desert region, etc. have certain peculiarities.

Desha is of three types. [32]

    i)   *Anupa*

    ii)   *Jangala*

    iii)   *Sadharana*

The *Desha* where there is of a lot of water is called *Anupa Desha* and the *Desha* where there is a shortage of water is called as *Jangala* and the *Sadharana Desha* is the in-between of these two *Deshas*. Thus the form condition of the being depends upon the *Desha* where he is born.

d)   **Kalanupatini Prakriti :** (Time and seasonal peculiarities)

The time like the *Satya Yuga, Treta Yuga, Dwapara Yuga, Kali Yuga* and also unlike times of night and day as well different seasons have certain peculiarities.

Kala is of two types i.e. *Samvatasara kala* and *Avasthika.* [33] There is variation of the *Sharirastha Doshas* according to the season hence it is called as *Nityagakala or Samvatasara Kala.* The Awasthikakala defines the state of the patient.

Kala or time has two meanings, viz. the year and the state of the particular diseases in the patient. Thus the *Prakriti* of the subjects can be determined according to the above *Kala.*

e)   **Vayanupatini Prakriti :** (Age factors)

h) 08 Chapter 5 Review of Literature *Prakriti*

The subject should be examined with position to his age which represents the state of his body depending upon the length of the time that has passed since birth. [34] Age is broadly of three types, viz. young, middle age and old age.

The predominance of *Dosha* in different ages is like this- in the period childhood *(kapha Dosha* predominant*)* in adult hood period *(Pitta Dosha* predominant*)* and during old age *(Vata Dosha* predominant*)* has certain peculiarities. [35]

The age is also divided in three types bearing in mind the position of the *Dhatus* in the *Sharira* i.e. *Bala* (childhood)*, Madhya* (young age) and *Vruddha* or *Jeerna* (old age). The dominance of the *Doshas* also depends on the age factor. In *Balyavastha Kapha Dosha,* in *Yuvavstha Pitta Dosha* and in *Vruddhavastha Vata Dosha* are the dominant respectively.

Young age is again of two types, viz.

(1) Immature stage lasting up to 16th year of age

 (2) Maturing stage lasting up to 30th year of age.

In the period of immature stage a variety of organs of the body are not developed, there is incomplete strength and the dominance of *Kapha Dosha* in the body.

During the second stage i.e. the stage of maturing lasting up to 30th year of age, the mental faculties are not properly developed.

During the middle age lasting up to the 60th year of age, there is well manifested strength, energy, manliness and velour, power of understanding, reaction, memorizing, speech and analyzing facts and the merits of all Dhatus; there is dominance of *Pitta Dosha.*

Thereafter during old age lasting up to 100th year of age, there is reduction of the *Dhatus*, strength of sense organs, energy,

masculinity, boldness, and power of understanding, reaction, memorizing, speech and analyzing facts. There is gradual shrinking in the qualities of *Dhatus* and dominance of *Vata* during this age.

f) ***Pratyatmaniyata Prakriti*** (Individual factors)

According to different individuals the peculiarities like force etc. are considered as *Pratyatma Niyata*

In *Pratyatmniyata Prakriti* the factors are measured which are liable for the formation of specific *Prakriti* of a being like;-*Satmya, Ahara, Vihara, Vyasana, Nidra, Bala, Kosthaa, Agni, Satva, Malapravriti, Vyavasaya, Dehaprakritti, Purvajanmakrittakarma* etc.

In view of that the above factors are considered in the formation of *Prakriti.*

Classification of *Prakriti*

Actually not a single individual is a like the other. In this way there may be incalculable verities of individuals or incalculable *Prakriti*. But for practical purpose, *Prakriti* has been classified as follows in the *Ayurvedic Samhitas.*

There are three basic relations for types of Prakriti classification

A. **In relation to *Samhitas***
1. *Doshaj Prakriti (Deha Prakriti or Sharir Prakriti-Physical constitution)*
2. *Bhautika Prakriti (Elemental Constitution)*
3. *Manasa Prakriti (Satva Prakriti or Mansik Prakriti-Psychological constitution)*

B. **In relation to the *Bhagwadgeeta Adhyay* 16, 17 as below**: [36]
1. *Satwika Prakriti*
2.   *Rajasika Prakriti*
3. *Tamsika Prakriti*

h) 08 Chapter 5 Review of Literature *Prakriti*

C. In relation to modern science *Prakriti* involve:-

1. Nature
2. Constitution
3. Temperament

In relation to *Samhitas*

1. *Doshaja Prakriti*:-

The *Doshaja Prakriti* is of an individual determined on the basis of domination of *Doshas* in ovum and sperm at the time when they at first unite in the form of foetus. [37]

Aacharya Charaka, Sushruta and *Vagbhata* have described seven types of *Prakriti. Aacharya Charaka* stated in *Sutrasthana Adhaya 7*(seven) that there are 4 (four) *Prakriti*. Later he also stated in *Vimanasthana Adhyaya* 8 (eight) and 6 (six) types in *Indriyasthana* like that *Aacharya Sushruta* stated in *Sharirsthana* 4 (four).

There are seven *Doshaja Prakriti* as follows:-

➢ *Eka Doshaja Prakriti*

The *Prakriti* which is formed due to one *Dominant Dosha* out of three *Dosha* is called as *Ekdoshaja Prakriti*. [38]

❖ *Vataja Prakriti*
❖ *Pittaja Prakriti*
❖ *Kaphaja Prakriti*

➢ *Dwi-Doshaja Prakriti*

The *Prakriti* in which there are combined symptoms of two *Prakriti* (two *Doshaja Prakriti*) is called as *Dwidoshaja Prakriti*.

1) *Vata- Pittaja Prakriti*
2) *Vata-Kaphaja Prakriti*
3) *Pitta-Kaphaja Prakriti*

➢ *Tri-Doshaja Prakriti*

40

h) 08 Chapter 5 Review of Literature *Prakriti*

Aacharya Charaka stated that the *Samavastha* of three *Dosha* is considered as *Dehadharaka* or *Dhatu* and the *Prakriti* formed due to such balanced condition of *Dosha* is called as *Tridoshaja Prakriti*. [39]

When all three *Doshas* are normal and they correspond to the features of *Vata, Pitta* and *Kapha Prakriti* it is known as *Sama Prakriti*. It is called the best one *(Srestha Prakriti)* in which all the three *Doshas* are in equilibrium state and all they execute the good qualities, so that someone leads a healthy life. A person with a *Sama Prakriti* (balanced *Prakriti* or constitution) lives as strong and energetic through the life.

Different characteristics of above three *Prakriti:-*

Vata Prakriti

Aacharya Charaka

The characteristics features of *Vatika Prakriti* individuals are according to the quality of nature of *Vata*. *Vata* is having the qualities of *Rooksha* (Rough), *Laghu* (Light), *Chala* (mobile), *Bahu* (More or many), *Shighra* (Speedy), *Sheeta* (Cool), *Parusha* (Coarse), *Vashada* (Non- sticky), etc. nature. Thus the characteristics are: - [40]

1st. *Rooksha* (**Rough**) [41A]
- ❖ Due to *Rooksha* nature of *Vata*, *Vatik Prakriti* individuals are dry, slim (lean), and small body.
- ❖ The voice is weak, rough, low, cracked tone.
- ❖ They do not get sleep (they are alert have no sound sleep.) and remains awake.

2nd. *Laghu* (**Light**) [41B]
- ❖ As a *Vayu* is *laghu*, their movements, diet and activities of the *Vatik* persons are light and quick.
- ❖ All activities are always very fast and immediate hurry.

3rd. *Chala* (**Mobile**) [41C]

❖ Owing to *Chala* nature of *Vata*, the unsteadiness and excessive movements of joints, eye-brows, jaws, lips, tongue, head, shoulders and limbs (hands and feet) are seen in *Vatik* persons.

4th.   ***Bahu* (More/Many/ Over/ Expansible)** [41D]

❖ Because of *Bahu* nature of *Vata*, the *Vatik* persons are over talkative

❖ Their blood vessels and ligaments are prominent.

5th.   ***Shighra* (Speedy/ Quickly)** [41E]

❖ *Shighra* is one of the *Guna* of *Vayu* which given an unstable temperament i.e. such persons get frightened readily.

❖ Due to the *Shighra* nature of *Vata* the *Vatik* persons are quick to start their works but get tired easily

❖ Quickly upset or emotionally disturbed

❖ Grasp quickly but forget as easily. He can grasp any subject very easily and forgets it at the same place.

6th.   ***Sheeta* (Cool)** [41F]

❖ Being *Sheeta* such persons are always susceptible to cold or the diseases arising out of cold.

❖ Due to *Sheet* nature of *Vata* gives rise to stiffness of body or tremors or shivering.

❖ They are always susceptible to shivering, muscle cramps etc.

7th.   ***Parusha* (Coarseness/roughness)** [41G]

❖ Due to *Parusha* nature of *Vata* results in rough hair, moustache, skin, nails, teeth, face, hand, and feet.

8th.   ***Vishada* (Non- Sticky)** [41H]

❖ Due to *Vishada* nature of *Vata*, *Vatik* individuals will have cracked and scaly skins

❖ Cracking of joints during movements.

Because of the above qualities and characteristics features of *Vatik Prakriti* individuals, such persons are usually week, having few children (progeny) and have short life span, having very poor amenities and wealth. Thus *Vata Prakriti* is the combination of all the above characters and is divided of strength, life, issues, and wealth. [42] The *Vata Prakriti* persons

h) 08 Chapter 5 Review of Literature *Prakriti*

have *Vishama Agni* and *Krura Koshtha* due to *Vataprakopaka* causes they get easily being diseased frequently.

Thus this *Prakriti* has been considered as *Heen Prakriti* [43] (week temperament) and always affected to different diseases. [44]

Aacharya Sharangdhara

According to *Sharangdhara* [45] the features of *Vatik Prakriti* individuals' are- scanty hair, week body, roughness of the skin, more talkative, quick mental grasping power and moving in the sky during dreams. *Vata Prakriti* persons are ugly, wicked, crook, jealous, and angry, in habit of chewing nails and teeth and are inclined towards music.

Aacharya Sushruta

They are ungrateful, not having long term friendship, have a wavering mind, they dream of flying over the sky. *Aacharya* told the *Anukatwa* of *Vataprakriti* i.e. such men are compared with some animals like camel, dog, cow, crow, and donkey. [46A]

The eyes nails, *Swara, Loma* of *Vataprukriti* person are rough and not in fully grown condition because of *Rukshadi Guna* of *Vata Dosha*. These persons experience unstable friendship. [46B]

They are having unstable memory and *Swabhava.* Their movements are very fast. They cannot control their temper. These persons like music, stories, outing, fighting and hunting etc. Such people are prone to dream partially dry rivers, hill and valleys and to fly in the sky. His eye lids remains partially open while sleeping. [46C]

They like sweets, sour and salty and hot food. Such food suits them. They are not gentlemen. They are not popular amongst opposite sex. They have round rough, muddy, ugly and pale eyes which remains open even during sleep. He is *Kleshasahishnu*. [46D]

h) 08 Chapter 5 Review of Literature *Prakriti*

Pitta Prakriti

<u>*AacharyaCharaka*</u>

The characteristics feature of *Pitta Prakriti* individuals are according to *Pitta Dosha*. Thus the qualities of *Pitta* are-

Pitta is *Ushana* (Hot), *Teekshana* (Sharp or penetrating), *Drava* (Liquid), *Vishra* (Foul smelling), *Amla* (Sour) and *Katu* (Pungent) in nature. Thus the features of *Paitika Prakriti* are- [47]

1st. **Because of its inherent *Ushana* nature** [48A]
- ❖ Persons cannot tolerate heat
- ❖ Their face look like hot due to over anxious delicate
- ❖ They are look like *Sukumara* (good looking in color and over anxious delicate)
- ❖ Always suffering from moles, skin eruptions, skin discolorations etc.
- ❖ Have excessive hunger and thirst
- ❖ Having tendency of wrinkles of skin and
- ❖ Premature graying of hair
- ❖ Baldness at in early age
- ❖ Have soft, scanty and yellowish colored hairs and beards.

2nd. ***Teekshan Guna* (Sharpening or penetrating nature)** [48B]
- ❖ The *Paitik Prakriti* individuals are very brave and aggressive mentality
- ❖ Have excellent digestive power and often eat and drink a lot
- ❖ Cannot tolerate strain and have tendency to eat very frequently throughout the day.

3rd. ***Drava* (Liquidity)** [48C]
- ❖ Due to *Drava* nature *Paitik Prakriti* persons have soft and loose muscles and joints
- ❖ They have a lot and excrete large quantities of sweat, urine and stools.

4th. ***Vishra* (Foul smelling or offensive odor)** [48D]

44

h) 08 Chapter 5 Review of Literature *Prakriti*

❖ Due to *Vishra* nature they have foul smelling or offensive odor from their axilla, mouth, grains and foul body sweat.

5th.   *Amla* (**Sour taste**) [48E]

❖ Due to *Amla guna* they have scanty *Shukra* (Semen)

❖ Less sexual power

❖ Less children (Progeny)

6th.   *Katu* (**Pungent taste**) [48F]

❖ Same as per *Amla*

Thus because of above qualities and characteristics features of *Paitik Prakriti* people, such persons have moderate strength, medium life span, moderate knowledge and intellect, moderate means to earn money and wealth. [48G]

Aacharya Sharangadhara

He described briefly the features of *Paitika Prakriti* as beneath [49]

Premature graying of hairs

❖ Intelligent

❖ Have more sweat secretion

❖ Have more anger

❖ Looking fire-burn in their dreams

Aacharya Sushruta

The person of *Paittika* constitution sweats profusely, has foul smell, pallor and slackness in body, coppery nails, eyes, palate, tongue, lips, palm and soles; unlucky, affected with wrinkles, graying of hairs and baldness, eats a lot, is averse to heat, becomes angry and then calms quickly. [50]

He has moderate strength and life span. [51]

He is intelligent, sharp, contending debater, brilliant and of uncontrollable power in battles. In sleep, he dreams of gold, (flowers of) Palasha, Karnikara and fire, lightening and mentor. [52]

h) 08 Chapter 5 Review of Literature *Prakriti*

He never submits by fear, is harsh to the rude but compassionate and charitable to those submitted, and frequently has trouble in mouth and difficult movement. These are the features of the with *Pittika* constitution. [53]

Those *Paittika* constitutions resemble, in character, snake, owl, Gandharva, Yaksha, cat, monkey, tiger and mongoose etc. [54]

Kapha or Sleshma Prakriti

AacharyaCharaka

The characteristics features of *Kapha Prakriti* persons are as beneath- *Sleshma* is *Snigdh* (Unctuous or groveling), *Slakshan* (Smooth), *Mridu* (Soft), *Madhur* (Sweet), *Sar* (Steady), *Sandra* (Dense), *Mand* (Slow), *Stimit* (Rigid), *Guru* (heavy), *Sheet* (Cold), *Vijjala* (limited amount of water), *Accha* (Clean). Thus the features of *Kapha Prakriti* are- [55]

1st. **Snigdh (Unctuous or groveling)** [56A]
- ❖ Because of *Snigdh* Nature *Kapha Prakriti* individuals have unctuous or groveling structures of the body.

2nd. **Slakshan (Smooth)** [56B]
- ❖ Due to *Slakshan* nature they have smooth and fine body parts.

3rd. **Mridu (Soft)** [56C]
- ❖ Because of *Mridu* nature they have attractive and charm full eye, face and body

4th. **Madhur (Sweet)** [56D]
- ❖ Owing *Madhur* nature *Kapha Prakriti* individuals have profuse quantity of semen
- ❖ Have abundant sexual power and have more progeny

5th. **Sar (Steady)** [56E]
- ❖ Due to *Sar Guna* individuals have well built and steady body

6th. **Sandra (Dense)** [56F]
- ❖ *Sandra Guna* of *Kapha* gives them well formed developed body and organs

7th.   *Mand* (**Slow**) [56G]

❖ The *Manda Guna* of *Kapha* produces slow activities including slow eating and behaviors

8th.   *Stimit* (**Rigid**) [56H]

❖ *Stimit Guna* of *Kapha* results slow onset of any activity and will not get upsets even in unhappy of the act that is done

9th.   *Guru* (**heavy**) [56 I]

❖ Because of *Guru* nature of *Kapha* the *Kaphaja* individuals have steady and slow movements

10th.   *Sheet* (**Cold**) [56J]

❖ Due to *Sheet* quality of *Kapha* they have less appetite and thirst

❖ Cold body and scanty sweat secretion

11th.   *Vijjala* (**limited amount of water**) [56K]

❖ Due to the limited amount of water in *kapha* compared to *Pitta* results in nicely integrated strong joints and ligaments

12th.   *Accha* (**Clean**) [56 I]

❖ The *Accha* (Clean) nature of *Kapha* provides rise to pleasant appearance, color and voice.

Thus due to such above qualities and features of *kapha* or *Kaphaja Prakriti* individuals, such *Prakriti* persons are acquired with best strength, wealthy, learned, energetic, and longevity in life span. Hence this *Prakriti* is considered as *Uttama Prakriti* or best of all. [57]

Aacharya Sharangadhara

The great Aacharya mentioned as below of *Kapha Prakriti-*

The *Kaphaja Prakriti* individuals have deep intelligent power, well developed body and parts or organs, oily hairs, well strength and seeing the water in dreams. [58]

h) 08 Chapter 5 Review of Literature *Prakriti*

__Aacharya Sushruta__

The different types of *Prakriti* can be defined according to the dominance of *Doshaja* as follows: - [59]

1) *Vatapradhana Pitta*   2) *Vatapradhana Kapha*

3) *Pittapradhana Kapha*   4) *Pittapradhana Vata*

5) *Kaphapradhana Vata*   6) *Kaphapradhana Pitta*

7) *Sama Vatapitta*   8) *Sama Pittakapha*

9) *Sama Vatakapha*

Thus considering the *Guna* there can be many more types of the *Prakriti.* But broadly only seven types are stated by *Aacharya* considering *Dosha.* By observing features of two or three types together, the physician should decide the mixed types of constitution. [60]

The persons of *Kaphaja Prakriti* has complexion similar to the color of one of these- *Durva, Indivara,* sword, fresh *Nimba* fruit and stalk of *Sara*; is lucky, handsome, sweet lowing, grateful, patient, tolerant, greedless, strong, with delayed acquisition and stable enmity. [61]

He is glorious and has white eyes, firm, curly, and bee black hairs. In dreams, he experiences lotus, *swan, Chakarvaka,* and beautiful lakes. [62]

The person with *Kaphaja* constitution has reddish corners of eyes, well defined organs, unctuous luster, and predominance, of *Sattva* quality. He is tolerant to difficulties and respectful to teachers and other elders. Such person should be deemed as having *Kaphaja* constitution. [63]

Firm in scriptural knowledge and views, with stable friends and wealth, donating plenty after long consideration, always precise in choosing sentences and words, he is ever respectful to teachers and elders. Persons having *Kaphaja* constitution resemble *Brahma, Rudra,* and *Varuna,* lion, horse, elephant, bull, *Garuda* and *Swan.* [64]

h) 08 Chapter 5 Review of Literature *Prakriti*

By nature, the types of constitution do not get aggravated, perverted or diminished except when the end of life is approaching. [65]

2. *Bhautika Prakriti*:-

Aacharya Sushruat stated in *Sharirsthana* 4 that according to the dominance of any one *Mahabhuta*, 5 *Bhautik Prakruties* are formed during the union of S*urkra* and S*onit*. Some *Aacharyas* defined the *Prakriti* according to *Mahabhutas* and called as *Bhut Prakriti*. Thus there are 5 *Bhoutik Prakritis*. Such are- [66]

1. *Vayavya Prakriti*
2. *Agneya Prakriti*
3. *Jaleeya Prakriti*
4. *Parthiva Prakriti*
5. *Nabhasa Prakriti*

The features of *Vayavya, Agneya* and *Jaleeya Prakriti* particulars are corresponding to the characteristic features of *Vata, Pitta,* and *Khapha Prakriti* individuals as mentioned above in *Deihik Prakriti* respectively. The nature of two other *Bhautik Prakriti* individuals is as below-

1. *Parthiva Prakriti*- [67]

❖ The *Parthiva Prakriti* persons have the characteristic features of steady and constant, well developed and big body

❖ Having the quality of pardon, tolerant or excuse nature.

2.*Nabhasa Prakriti*- [68]

❖ The Prakriti having Nabhas conquered persons are the features of –having good moral conduct and behavior

❖ Having big channels and having longevity.

49

3. *Manasa Prakriti:*

Indian philosophers measured the mind is having three qualities like *Satva, Raja* and *Tama*. All of them possess both good as well as bad qualities, according to their predominance in the fetal stage. *Aacharya Charaka*, *Sushruta* and *Vagbhata* have also described the Prakriti according to the *Manas Dosha*. *Sushruta* has coated that these *Prakriti* as *Mahaprakriti*. [69] Firstly *Prakriti* is divided in 3 main types and later in different types considering the dominance of *Dosha*. [70]

A. Satwika Prakriti (Sattvabhuyistha)
B. Rajsika Prakriti (Rajobhuyistha)
C. Tamasika Prakriti (Tamobhuyishta)

By knowing the below mental faculties, the physician should treat accordingly, otherwise it will affect the body. [71]

The different types of the above three *Prakriti* are given in the tables according to *Aacharya Charaka, Sushruta and Kashyapa* as follows:

Satwika Prakriti (Sattvabhuyistha)

Table No. 1

Sr. no	Sushruta	Charaka	Kashyapa
1.	Brahma	Brahma	Brahma
2	Mahendra	Aindra	Aindra
3	Varuna	Varuna	Varuna
4	Kauvera	Kauvera	Kauvera
5	Gandharva	Gandharva	Gandharva
6	Yamya	Yamya	Yamya
7	Rishi	Aarsh	Aarsh
8	---	---	Prajapatya Satva

h) 08 Chapter 5 Review of Literature *Prakriti*

Rajsika Prakriti (Rajobhuyistha)

Table No. 2

Sr. no	Sushruta	Charaka	Kashyapa
1.	Asura	Asura	Asura
2.	Sarpa	Sarpa	Sarpa
3.	Sakuna	Sakuna	Sakuna
4.	Raksasa	Raksasa	Raksasa
5.	Paisach	Paisach	Paisach
6.	Praita	Praita	--
7.	--	--	Yakshasatwa
8.	--	--	Bhutasatwa

Tamasika Prakriti (Tamobhuyishta)

Table No. 3

Sr. no	Sushruta	Charaka	Kashyapa
1	Pasava	Pasava	Pasava
2	Matsya	Matsya	Matsya
3	Vanaspatya	Vanaspatya	Vanaspatya

A. *Satwika Prakriti (Sattvabhuyistha)*

Satwika Prakriti or *Sattvabhuyistha* is one in which the *Satwa guna* dominates. It is considered the best among the other two. This is further subdivided in to seven categories. [72]

All the bellow seven types of *Satwik Prakriti* are all the beneficial kind. The first one that is the *Brahmic Satwa* is to be considered as the purest for the beneficent aspect of the mind is perfectly represented in it.

I.   *Brahm Kaya or Brahma Satwa :* [73]

Sharing the traits of *Brahma*, the features of *Brahma Satwa* persons are-

❖ They are devoted to truth,

- ❖ Believe in the existence of god and read *Vedas* regularly
- ❖ Gives respect to elders and teachers
- ❖ Have good control over self, endowed with science and knowledge, power of exposition and good memory
- ❖ Are free from desire, anger, greed, delusion, infatuation, envy, dejection, intolerance and are equally well behaved to all creatures of the universe.

Purity, love for truth, self controlled; power of discrimination, material and spiritual knowledge; power of exposition, reply and memory; freedom from passion, anger, greed, ego, ignorance, jealousy and intolerance; favorable disposition equally for all creatures. [74]

II.   *Mahendra Kaya or Endra Satwa :-* [75]
Sharing the traits of *Mahendra*,

- ❖ The *Endra Satwa Prakriti* persons are brave, energetic and endowed with wealth and foresight, acted on righteous and virtuous path, do not act the censurable act
- ❖ Enjoy worldly pleasures and learned
- ❖ They are devoted to the aims of *Dharma, Artha* and *Kama.*

Magnanimity, velour, commanding, devotion, to scriptures and supporting dependents- this is the feature of *Mahendra Kaya*. [76]

III.   *Varuna kaya or Varuna Satwa :-* [77]
Sharing the traits of *Varuna*,

- ❖ These persons ere brave, courageous, valiant, clean and intolerant of uncleanness
- ❖ Are devoted to the performance of sacrifices
- ❖ Found of aquatic sports and exposure to cold, are given to pursuits which are not blame worthy.

Accustomed to cold, tolerance, grey eyes, brown hairs, and talking sweetly- this is the feature of *Varuna Kaya.* [78]

IV.   *Kaubera Satwa or kaubera Kaya:-* [79]

Sharing the traits of *Kaubera*,

The persons of having *Kaubera Satwa* are the features of-

❖ Commanding status, honor, luxuries and attendants are devoted to the constant pursuit of virtue, wealth, pleasure, cleanliness and recreation

❖ Get angry easily and favors those whom they like.

Neutrality, tolerance, acquisition, and collection of wealth and high virility- this is the feature of *Kaubera Kaya.* [80]

V.   *Gandharva Kaya Gandharva Satwa:-* [81]

Sharing the traits of *Gandharva*, the feature of *Gandharva* individuals' are-

❖ Very much found of dancing, singing songs, music, praise

❖ They are well versed in poetry, anecdotes, history and legends,

❖ They are constantly addicted to the pleasure of perfumes, ointments, women and recreations.

The person of *Gandharva Kaya* likes fragrance and garlands, is interested in dance and music and travels frequently. [82]

VI.   *Yamya Satwa or Yamya Kaya:-* [83]

Sharing the traits of *Yamya*,

❖ The persons endowed with *Yamya Satwa* are the characteristics features of-Righteous actions carried out in a determined manner

❖ Have firm mind, good memory

❖ They are free from attachment, anger, illusions, fear, and pride, are courageous

❖ Enjoy authority and power.

h) 08 Chapter 5 Review of Literature *Prakriti*

Doing justice, firm, initiation, fearless, with good memory, pure and free from attachment, delusion, pride and aversion- this is feature of *Yamya Kaya.* [84]

VII.   *Rishi Kaya:-* [85]

Sharing the traits of *Rishi or Aarsh*,

- ❖ They are intelligent, learned, devoid of pride, ego, attachment, hatred, delusion, greed, and anger, are endowed with genius, eloquence, understanding and have good memory.
- ❖ They are also kind and have good control over their desires and emotions.

The person having *Rishi Kaya* is devoted to recitation, ritual observance, celibacy, sacrifices and study and is a perfect with knowledge and experience. [86]

VIII.   *Prajapatya Satva.* [87]

Sharing the traits of *Prajapati*, the characteristics features of *Arsha Satwa* persons are devoted to sacrifice, study, vows, sacrificial offerings, maintained celibacy, hospitable disposition, freedom from pride, ego attachment, ignorance, greed and anger; intellectual excellence and eloquence; power of understanding and retention. *Aacharya Charaka* abbreviated it as *Aarsh Satvaa.*

B. Rajsika Prakriti (Rajobhuyistha)

The *Rajasika* type of mental faculty represents wrathful disposition and is of six types. Their characteristic features are furnished as below.

Rajsika Prakriti or *Rajobhuyistha* is the state in which the *Rajas* quality dominates. In *Rajas Prakriti*, the emotions like anger, joy, attachment, jealousy etc. dominate their personality. It is of six types.

i.   Asura Satwa or Asura Kaya:- [88]

Sharing the traits of *Asura*, the characteristic features of *Asura Satwa Prakriti* are

- ❖ They are affluent, valiant, brave, jealous, and gluttonous with enjoy eating without sharing with others.
- ❖ They enjoy position of authority and wealth but are terrifying, pitiless, greedy, and enjoy findings faults with others.

Powerful, fierce, brave, wrathful, envious, eating alone and gluttonous-this is the feature of *Asura Kaya.* [89]

ii.   *Sarpa Satwa or Sarpa Kaya:-* [90]

Sharing the traits of *Sarpa*, the features of this *Kaya* are-

- ❖ Coward but brave when excited
- ❖ They are torturer of an indolent disposition and arouse fear in the persons around, enjoy food, sleep, sex
- ❖ Irritable and easily get excited, remember their enemy for a long time.

Ferocious, exerting, timed, wrathful, tricky and unstable in movement and behavior- such person should be known as *snake's Prakriti.* [91]

iii.   *Shakuna Satwa or Shakun Kaya:-* [92]

Sharing the traits of *Shakuna*, the persons of this *kaya*-

- ❖ Have strong attachment, are constantly devoted to delights of eating and sex, are fickle
- ❖ Unintelligent and coward
- ❖ Change their place of residence like birds.

The person having bird's psyche is lustful and lascivious, eats frequently, and is intolerant and unstable. [93]

iv.   *Rakhasa satwa or Rakhasa Kaya:-* [94]

Sharing the traits of *Rakhasa*, the *Rakhasa Satwa prakriti* individuals are –

- ❖ Cruel, gluttonous
- ❖ Fond of non- vegetarian food.
- ❖ They are fierce and solitary in habits.
- ❖ They hate, mark time and then strike.

❖ They do not forgive others.

Partisanship, fierceness, envy, unrighteousness, and utter inertia-this is the feature of psyche resembling that of *Raksas.* [95]

v.   *Paishachha Satwa or Paishacha Kaya:-* [96]

Sharing the traits of *Paishachha* the persons belonging to this *Satwa* are-

❖ Voracious eaters, enjoy meat
❖ They are found of keeping with women in secret
❖ They are impure, unclean, coward
❖ Enjoy bullying and frightening others
❖ Shameless, irritable and suspicious

Eating left-over, fierceness, adventurous, lasciviousness and absence of shame-this is the feature of psyche as of *Paishachha.* [97]

vi.   *Preta Satwa or Preta Kaya:-* [98]

Sharing the traits of *Preta*, these persons are-

❖ Fond of food, desires and sleep
❖ Their conduct and behavior are notorious and miserable
❖ They are envious and cannot discriminate between right and wrong
❖ They are covetous and not interested to do work. They fail in carrying out their duties.

The person should be known as having psyche of *Preta* who does not make equal distribution, is idle, unhappy, jealous, and greedy and uncharitable. [99]

C. *Tamas Prakriti*

Tamas Prakriti or *Tamobhuyistha* is one which the *Tamas Guna* dominates. In this *Prakriti*, the features like laziness, less intelligent, sleeping even during day are the dominate characteristics.

These are three types:-

h) 08 Chapter 5 Review of Literature *Prakriti*

i. *Pashava Satwa* or *Pashava Kaya:-* [100]

Sharing the traits of animal, the persons belonging to this group are-

- ❖ The features of having forbidding disposition
- ❖ They are unintelligent and disgusting in their behavior, dress and dietetic habits.
- ❖ They enjoy sex and sleep. They cannot ascertain any decision.

Dullness, crookedness, daily coitus in dream and negative attitude-this is the feature of animal's psyche. [101]

ii. *Matashya Satwa* or *Matashyakaya:-* [102]

Sharing the traits of *Matashyakaya*, these persons are-

- ❖ Stupid, greedy, unstable, and coward.
- ❖ They enjoy and are after quarrels, food, water, and sex.
- ❖ They do not bother about others and can be harmful.
- ❖ They have many children.

Instability, foolishness, timidity, and liking for water and mutual quarrel-this is the feature of fish's psyche. [103]

iii. *Vanaspatya Satwa or Vanaspatya kaya:-* [104]

Sharing the traits of *Vanaspatya*, these persons are-

- ❖ Lazy and cling to one place.
- ❖ They are devoted to eating.
- ❖ They are devoid of mental faculties and lack truthfulness, pity and enjoyment.
- ❖ They bear sorrow, environmental changes and physical torture without reacting to it.

The person having plant's psyche likes to stay at one place, is always engaged only eating and devoid of *Satva*, righteousness, enjoyment and wealth. [105]

Maharshi Vagbhatta has briefly described the characteristic features of the above three *Prakriti* as- [106]

h) 08 Chapter 5 Review of Literature *Prakriti*

Satvika (derivations from *Satvaguna*) cleanliness, belief in god, inclination to follow the path of pure virtue (righteousness) is *Satvika* (derivations from *Satvaguna*). Cleanliness is of three kinds- *Kayika* (of the body), *Vachika* (of speech) and *Mansika* (of the mind); gratefulness, obligation, compassion, velour, nobility, ingenuity, good memory and many such virtuous qualities are also from *Satvaguna.*

Talkativeness, pride, anger, vanity and jealousy are *Rajasa* (derivations from *Rajoguna*). Bravery, ungratefulness, sensuality (pleasure seeking, especially in sexual activities) unsteadiness, and other vices are from *Rajoguna.*

Fear, ignorance, sleep, laziness, and grief are *Tamasa* (derivations from *Tamoguna*). Thus the body is composed of the *Bhutas*. Committing errors, poor intellect, memory, courage and strength are some derivations from *Tamoguna*. The human body like all the substances of the universe is made up of *Panchbhutas* only.

Modern view of *Prakriti:-*

The *Prakriti* is called as constitution, temperament and nature and in modern science.

The anatomical features of an individual form one of a set of basic unit characters predetermined by heredity and influenced to some extent by environment, which together make up the constitution. The anatomical aspect is related to psychological, physiological and immunological aspect and it's was a recognition of this fact which formed the basic marvelous unconscious skill of other physicians.

The subject of constitution is bound up with that of heredity. The central doctrine of Greek medicine was that of temperament and constitution and the conception of Hippocrates are worthy of consideration even at present day. Constitution according to draper, whose monograph on the subject should be consulted, is that aggregate of hereditarily characters, influenced were or less

environment, which determines the individual's reaction successful as unsuccessful, to the stress of environment.

The three basic elements of the disease problem are man, the lesion and environmental stress.

Sex has profound influence on disease reactions and this is determined by the presence or absence of the extra-chromosome. Size of the body has been shown in animals to be a unit character. The entire skeleton may be altered by the defect in a single gene and the person may play a part in predisposition to disease. Thus certain disease is peculiar to the race.

The capacity of an individual to react to the environmental stress is a constitution quality, just as specific as body size and capable of the transmitter to his   offspring, longevity which is the result and expression of a good constitution, is certainly inherited. Everyone knows of families, the majority of whose members reach the late seventies or eighties, no matter what kind of life they may have led. This is the case with resistance to infection.

 The general built of the body is the resultant of a combination of height and weight. On this basis, it is possible to divide person into the Asthenic groups and Asthenic.

The Asthenic individual is tall with a narrow costal angle a pallid countenance, easily fatigued and inclined to be melancholy, he has a long dropping stomach which empties poorly and intestines which sag, so that this melancholy may be aggregated by dyspepsia and constipation. He is likely to be subject for peptic ulcer.

The Asthenic individual is short and stout with a wide costal angle and deep chest, inclined to florid of cheerful sanguine disposition, liable to gallbladder disease, arterial coronary occlusion owing to defects in his germ plasma at the time of conception.

h) 08 Chapter 5 Review of Literature *Prakriti*

References

1. विपरीतगुणस्तेषां स्वस्थवृत्तेर्विधिर्हित: । वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू.7/41/52/चरक संहिता- आयुर्वेद दीपिका- चक्रपाणि टीका/वाराणसी/ चौखम्बा सुभारती प्रकाशन/ 2009/

2. शिवराम आप्टे / सन्सकृत हिन्दी शब्दकोष / नई दिल्ली /कमल प्रकाशन- / 1986 / ISBN NO. 8189755/ 16

3. शिवराम आप्टे / सन्सकृत हिन्दी शब्दकोष / नई दिल्ली /कमल प्रकाशन- / 1986 / ISBN NO. 8189755/ 16

4. प्रकृतिश्च जन्मप्रभृतिवृद्धो वातादिरूच्यते । वैद्य जयदेवजी त्रिकमजी आचार्य /च. सू. 17/62/102/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका (चक्रपाणि) / वाराणसी/ चौखम्बा सुभारती प्रकाशन/ 2009/

5. दोषानुशयिता ह्येषां देहप्रकृतिरूच्यते। वैद्य जयदेवजी त्रिकमजी आचार्य / च. सू. 7/40/52/चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका /2009/ वाराणसी/ चौखम्बा सुभारती प्रकाशन/ 2009/

6. तेषामनातुरा: पूर्वे वातलाद्या: सदातुरा: । वैद्य जयदेवजी त्रिकमजी आचार्य च. सू./ 7/40/52/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2009/

7. समपित्तानिलकफा: केचिद्भर्भादिमानवा:। वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू. 7/39/52/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

8. प्रकोपो वाऽन्यथाभावो क्षयो वा नोपजायते ।
प्रकृतिनां स्वभावेन जायते तु गतायुष: ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/78/362/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008

9. कालदूष्यप्रकृतिभिर्दोषस्तुल्यो हि सन्ततम् । वैद्य जयदेवजी त्रिकमजी आचार्य च.
    चि. 3/55/403/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी
    /चौखम्बा सुभारती प्रकाशन/ 2009/

10. शुक्रशोणितसंयोगे यो भवेद्दोष उत्कट:।

    प्रकृतिर्जायते तेन तस्या मे लक्षणं श्रृणु ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा.
    4/63/360/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/
    2008

11. विषजातो   यथा   कीटो   न   विषेण   विपद्यते   ।
    तद्वप्रकृतियो मर्त्यं शक्नुवन्ति न बाधितुम॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/
    सु.शा. 4/79/362/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती
    प्रकाशन/ 2008

12. शुक्रासृग्गर्भिणीभोज्यचेष्टागर्भाशयर्तुषु ।
    य: स्याद्दोषोऽधिकस्तेन प्रकृति : सम्प्रद्योतिताः ॥ प्रो. के. आर. श्रीकान्त मूर्ति /अ.
    हृ. शा. /3/83/413/ अ. हृ. / प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश
    प्रकाशन 2013 /

13. तद्यथा- शुक्रशोणितप्रकृतिं, कालगर्भाशयप्रकृतिं , आतुराहारविहारप्रकृतिं,
    महाभूतविकारप्रकृतिं च गर्भशरीरमपेक्षते ।/ वैद्य जयदेवजी त्रिकमजी आचार्य/
    च. वि. 8/95/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी
    /चौखम्बा सुभारती प्रकाशन/ 2009/

14. शुक्रं तदस्य प्रवदन्ति धीरा यद्द्वीयते गर्भसमुद्भवाय । वैद्य जयदेवजी त्रिकमजी
    आचार्य/ च. शा. 2/4/302/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका /
    वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

15. सर्वत्रानुगतं देहे शुक्रं संस्पर्शने तथा । वैद्य जयदेवजी त्रिकमजी आचार्य/ च. चि.
    2/46/397/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी
    /चौखम्बा सुभारती प्रकाशन/ 2009/

16. कृत्स्नदेहाश्रितं शुक्रं प्रसन्नमनसस्तथा ।

स्त्रीषु व्यायच्छतश्चापि हर्षात्तत् संप्रवर्तते ॥ वैद्य जयदेवजी त्रिकमजी आचार्य /सु.शा. 4/23/357/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008

17. रक्तलक्षणमार्तवं गर्भकृच्छ्र, गर्भो गर्भलक्षणं, स्तन्यं स्तनयोरापीनत्वजननं जीवनं चेति । वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.सू. 15/5/68/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008

18. मातुः कालगर्भाशयप्रकृतिं मातुः कैशोरयौवनतारुण्यप्रोढयाधावस्थिककाले गर्भाशयस्य या प्रकृतिः । आचार्य श्री नरेन्द्रनाथसेन गुप्त/ च. वि. 8/80/1693/चरक संहिता-गंगाधर टीका / तृतीय खण्ड/ राष्ट्रीय संस्कृत संस्थानम्/ 2011/

19. ततः पुष्पात् प्रभृति त्रिरात्रमासीत ब्रह्मचारिण्यधःशायिनी……../ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 8/5/340/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

20. वयोहोरात्रिभुक्तानां तेऽन्तमध्यादिगाः क्रमात् । प्रो. के. आर. श्रीकान्त मूर्ति /अ. हृ. सू./ 1/8/6/ अ. हृ. सू. / प्रथम वोल्युम / वाराणसी / चौखम्बा कृष्णदाश प्रकाशन 2013 /

21. इह खलु संवत्सरं……………वर्षादीन् पुनर्हेमन्तान्तान् दक्षिणायनं विसर्गं च । वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू. 6/4/44/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

22. आदावन्ते च दौर्बल्यं विसर्गादानयोर्नृणाम् ।
मध्ये मध्यबलं, त्वन्ते श्रेष्ठमग्रे च निर्दिशेत् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू. 6/8/45/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

23. वयोहोरात्रिभुक्तानां तेऽन्तमध्यादिगाः क्रमात् । प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ. सू. /1/8/6/ प्रथम वोल्युम / वाराणसी / चौखम्बा कृष्णदाश प्रकाशन /2013

24. तद्यथा- शुक्रशोणितप्रकृतिं, कालगर्भाशयप्रकृतिं , आतुराहारविहारप्रकृतिं, महाभूतविकारप्रकृतिं च गर्भशरीरमपेक्षते । वैध जयदेवजी त्रिकमजी आचार्य/ च.

वि. 8/95/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

25. मातुराहारविहारौ तत्कालीनौ यद्दोषकरणस्वभावौ, सा च प्रकृतिर्गर्भशरीरे भवति । वैद्य जयदेवजी त्रिकमजी आचार्य/ चक्रपाणी / च. वि. 8/95/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

26. लवणनित्या शीघ्रवलीपलितं खालित्यरोगिणं वा ....। वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 8/21/344/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

27. शोकनित्या भीतमपचितमल्पायुषं वा.........। वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 8/21/343/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

28. स्तेना त्वायासबहुलमतिद्रोहिणमकर्मशीलं वा ......। वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 8/21/343-344/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

29. अष्टमे तु मासे क्षीरयवागूं सर्पिष्मतीं काले काले पिबेत्; तन्नेति भद्रकाप्य:, पैङ्गल्याबाधो ह्यास्या गर्भमागच्छेदिति;..........। वैद्य जयदेवजी त्रिकमजी आचार्य / च. शा. 8/32/346/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

30. महाभूतविकारा: शौक्रा आर्तवा आहारद्रव्यरसजा आप्यजाश्च वातादयश्चत्वारश्चतुर्विधास्तेषामाकाशस्य च या या प्रकृति: तां तां प्रकृतिमपेक्षते-। आचार्य श्री नरेन्द्रनाथसेन गुप्त/ च. वि. 8/80/1693/ चरक संहिता-गंगाधर टीका / तृतीय खण्ड/ वाराणसी 2011/ राष्ट्रीय संस्कृत संस्थानम्/ 2011

31. तत्र प्रकृतिर्जातिप्रसक्ताच, कुलप्रसक्ता च, देशानुपातिनी च, कालानुपातिनी च, वयोऽनुपातिनी च, प्रत्यात्मनिमित्ता चेति । जातिकुलदेशकलवय:प्रत्यामनियता हि तेषां तेषां पुरूषाणां भावविशेषा भवन्ति ।। वैद्य जयदेवजी त्रिकमजी आचार्य

/ च. इ. 1/5/354/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

32. भूमिदेहप्रभेदेन देशमाहुरिह द्विधा ।

जाङ्गलं वातभूयिष्ठमनूपं तु कफोल्वणम् ।।

साधारणं सममलं त्रिधा भूदेशमादिशेत् । प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ. सू /1/23-24/13 / अ. हृ. / प्रथम वोल्युम / वाराणसी / चौखम्बा कृष्णदाश प्रकाशन /2013

33. काल: पुन: संवत्सरश्चातुरावस्था च । वैद्य जयदेवजी त्रिकमजी आचार्य/ च. वि. 8/125/281/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

34. वयस्त्श्रेति कालप्रमाणविशेषापेक्षिणी हि शरीरावस्था वयोऽभिधीयते । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/122/280/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

35. श्लेष्मधातुप्रायमाषोडशवर्षं,........पित्तधातुप्रायमाषष्टिवर्षमुपदिष्टम्;......वायुधातुप्रायं क्रमेण जीर्णमुच्यते आवशतम् । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/122/280/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

36. त्रिविधा   भवति   श्रद्धा   देहिनां   सा   स्वभावजा   । सात्विकी राजसी चैव तामसी चेति तां शृणु ॥ अध्याय 17/2/222/ श्रीमद्भगवद्गीता / 0633/168th संस्करण / गीताप्रेस गोरखपुर / 2003

37. सा सा दोषप्रकृतिरूच्यते मनुष्याणां गर्भादिप्रवृत्ता । वैद्य जयदेवजी त्रिकमजी आचार्य/ च. वि. 8/95/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

38. एतानि हि येन येन दोषेणाधिकेनैकेनानेकेन वा समनुबध्यन्ते, तेन् तेन् दोषेण गर्भोऽनुबध्यन्ते; …। वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/95/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

39. समधातव: केचिद्ध्रुवन्ति । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/95/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

40. वातस्तु रूक्षलघुचलबहुशीघ्रशीतपरूषविशद: । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/98/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

41.   A, B, C, D, E, F, G, H तस्य रौक्ष्याद्वातला: रूक्षापचिताल्पशरीरा: प्रततरूक्षक्षामसन्नसक्तजर्जरस्वरा जागरूकाश्च भवन्ति, लघुत्वाल्लघुचपलगतिचेष्टाहारव्यवहारा:, चलत्वादनवस्थितसन्ध्यक्षिभ्रूहन्वोष्ठजिव्हाशिर: स्कन्धपाणिपादा:, बहुत्वाद्बहुप्रलापकण्डरासिराप्रताना:, शीघ्रत्वाच्छीघ्रसमारम्भक्षोभविकारा: शीघ्रत्रासरागविरागा: श्रुतग्राहिणोऽल्पस्मृतयश्च, शैत्याच्छीतासहिष्णव: प्रततशीतकोद्वेषकस्तम्भा:, पारूष्यात् परूषकेशश्मश्रुरोमनखदशनवदनपाणिपादा:, वैशधात् स्फुटिताङ्गावयवा: सततसंधिशब्दगामिनश्च भवन्ति; त एवं गुण योगाद्वातला: प्रायेणाल्पबलाश्चाल्पायुष्श्चाल्पापत्याश्चाल्पसाधनाश्चाल्पधनाश्च भवन्ति । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/98/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

42. त एवं गुण योगाद्वातला: -

प्रायेणाल्पबलाश्चाल्पायुष्श्चाल्पापत्याश्चाल्पसाधनाश्चाल्पधनाश्च भवन्ति । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/98/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

43. तैश्च तिस्र: प्रकृतयो हीनमध्योत्तमा : पृथक् ।

समधातुः समस्तासु श्रेष्ठा, निन्ध्या द्विदोषजाः ॥ प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ. सू. / 1/10/7/ प्रथम वोल्युम / वाराणसी / चौखम्बा कृष्णदाश प्रकाशन /2013/

44. तेषामनातुराः पूर्वे वातलाद्याः सदातुराः ।

दोषानुशयिता ह्येषां देहप्रकृतिरुच्यते ॥ वैद्य जयदेवजी त्रिकमजी आचार्य / च. सू.7/40/52/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

45. अल्पकेशः कृशो रूक्षो वाचालश्चलमानसः ।

आकाशचारी स्वप्नेषु वातप्रकृतिको नरः ॥ वैद्य रणजीतराय देशाई/ अध्याय 42/ 882/शा. पू. 6/21 /आयुर्वेदीय क्रिया शारीर / संस्करण 6 / नागपुर/श्री वैधनाथ आयुर्वेद भवन लिमिटेड / 1992 /

46. A, B, C, D तत्र वातप्रकृतिः प्रजागरूकः शीतद्वेषी दुर्भगः स्तेनो मत्सर्येनार्यो गन्धर्वचित्तः । स्फुटितकरचरणोऽल्परूक्षश्मश्रुनखकेशः क्राथी दन्तखादी च भवति । अधृतिरदृढसौहृदः कृतघ्नः कृशपरूषोधमनीतत: प्रलापी । द्रुतगतिरटनोऽनवस्थितात्मा वियति च गच्छति संभ्रमेण सुप्तः । अव्यवस्थितमतिश्चलदृष्टिर्मन्दरत्नधनसंचयमित्रः किंचिदेव विपत्यनिबद्धं मारूतप्रकृतिरेष मनुष्यः । वातिकाश्चाजगोमायुशशाखूष्ट्रशुनां तथा । गृध्रकाकखरादीनामनूकैः कीर्तिता नराः / वैद्य जयदेवजी त्रिकमजी आचार्य / सु.शा. 4/64-67/361/सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

47. पित्तमुष्णं तीक्ष्णं द्रवं विस्त्रमम्लं कटुकं च। वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/97/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

48. A, B, C, D, E, G, F, G तस्यौष्ण्यात् पित्तला: भवन्त्युष्णासहा:, सुकुमारावदातगत्रा: उष्णमुखा: प्रभूतपिप्लुव्यङ्गतिलपिडका:, क्षुत्पिपासावन्त: क्षिप्रवलीपलितखालित्यदोषा: प्रायो मृद्वल्पकपिलश्मश्रुलोमकेश्च; तैक्ष्ण्यात्तीक्ष्णपराक्रमा: तीक्ष्णाग्नय: प्रभूताशनपाना: क्लेशासहिष्णवो दन्दशूका: द्रवत्वाच्छिथिलमृदुसन्धिमांसा:, प्रभूतसृष्टस्वेदमूत्रपुरीषाश्च, विस्रत्वात् प्रभूतपूतिकक्षास्यशिर:शरीरगन्धा; कट्वम्लत्वादल्पशुक्रव्यवायापत्या: त एव गुणयोगात् पित्तला मध्यबला मध्यायुषो मध्यज्ञानवित्तोपकरणवन्तश्च भवन्ति । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/97/277/ चरक संहिता-आयुर्वेद दीपिका-चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

49. अकाले पलितैर्व्याप्तो धीमान् स्वेदी च रोषण:।

स्वप्नेषु ज्योतिषां द्रष्टा पित्तप्रकृतिको नर: ॥ प्रो. कृष्णकान्त पाण्डे/शा. पू. 6/21/क्रिया शारीर /153/1/107/ वाराणसी / चौखम्बा कृष्णदास अकेडमी/2007/

50. पित्तप्रकृतिस्तु स्वेदनो दुर्गन्ध: पीतशिथिलाङ्गस्ताम्रनखनयनतालुजिह्वौष्ठपाणिपादतलो दुर्भगो वलिपलितखालित्यजुष्टो बहुभुगुष्णद्वेषी क्षिप्रकोपप्रसादो......| वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/68/361/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

51. .....मध्यबलो मध्यायुश्च भवति । वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/68/361/सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

52. मेधावी निपुणमतिर्विगृह्य वक्ता तेजस्वी समितिषु दुर्निवारवीर्यः । सुप्तः सन् कनकपलाशकर्णिकारान् संपश्येदपि च हुताशविधुदुल्काः । वैद्य जयदेवजी त्रिकमजी आचार्य / सु.शा. 4/69/361/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

53. न भयात् प्रणमेदनतेष्वमृदुः प्रणतेष्वपि सान्त्वनदानरूचिः भवतीह सदा व्यथितास्यगतिः स भवेदिह पित्तकृतप्रकृतिः॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/70/361/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

54. भुजङ्गोलूकगन्धर्वयक्षमार्जारवानरैः।
व्याघर्क्षनकुलानूकैः पैत्तिकास्तु नराः स्मृताः ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/71/361/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

55. श्लेषमा हि
स्निग्धश्लक्षणमृदुमधुरसारसान्द्रमन्दस्तिमितगुरूशीतविज्जलाच्छः। वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/96/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

56. A, B, C, D, E, F, G, H, I, J, K, L तस्य स्नेहाच्छलेष्मलाःस्निग्धांगाः श्लक्ष्णत्वाच्छलक्ष्णांगाः मृदुत्वादृष्टिसुख सुकुमारावदातगात्राः माधुर्यात् प्रभूतशुक्र व्यवायापत्याः सारत्वात् सारसंहतस्थिरशरीराः, सान्द्रत्वादुपचितपरिपूर्णसर्वाङ्गाः, मन्दत्वान्मन्दचेष्टाहारव्यवहाराः स्तैमित्यादशीघ्रारम्भक्षोभविकाराः गुरूत्वात् साराधिष्ठितावस्थितगतयः, शैत्यादल्पक्षुत्तृष्णासंतापस्वेददोषाः,   विज्जलत्वात्

68

h) 08 Chapter 5 Review of Literature *Prakriti*

सुश्लिष्टसारसन्धिबन्धना: तथाऽच्छत्वात् प्रसन्नदर्शनानना: प्रसन्नस्निग्धवर्णस्वराश्च भवन्ति..... । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/96/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

57. .....त एवं गुणयोगात् श्लेष्मला बलवन्तो वसुमन्तो विधावन्त ओजस्विन: शान्ता: आयुष्मन्तश्च भवन्ति । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/96/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

58. गम्भीरबुद्धि: स्थूलाङ्ग: स्निग्धकेशो महाबल: ।

स्वप्ने जलाशयलोकी श्लेषमप्रकृतिको नर: ॥ प्रो. कृष्णकान्त पाण्डे/ शा.पू. 6/22/ क्रिया शारीर /154/1/109/ प्रो. कृष्णकान्त पाण्डे/ वाराणसी / चौखम्बा कृष्णदास अकेडमी/ 2007

59. शुक्रशोणितसंयोगे यो भवेद्दोष उत्कट:।

प्रकृतिर्जायते तेन तस्या मे लक्षणं श्रुणु ॥ वैद्य जयदेवजी त्रिकमजी आचार्य / सु.शा. 4/63/360/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

60. द्व्यो तिसृणां वाऽपि प्रकृतीनां तु लक्षणै:।

ज्ञात्वा संसर्गजा वैद्य: प्रकृतीरभिनिर्दिशेत् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य / सु.शा. 4/77/362/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

61. श्लेषमप्रकृतिस्तु दूर्वेन्दीवरनिस्त्रिशार्द्रारिष्टकशरकाण्डानामन्यतमवर्ण: सुभग: प्रियदर्शनो मधुरप्रिय: कृतज्ञो धृतिमान् सहिष्णुरलोलुपो

बलवानंश्चिरग्राही दृढवैरश्च भवति। /प्रियव्रत शर्मा/ सु.शा. 4/70/164/ सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010

62. शुक्लाक्ष: स्थिरकुटिलालिनीलकेशो लक्ष्मीवान् जलदमृदङ्गसिंहघोष: ।

सुप्त: सन् सकमलहंसचक्रवाकान् संपश्येदपि च जलाशयान् मनोज्ञान् ॥/ प्रियव्रत शर्मा/ सु.शा. 4/70/164/सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010/

63. रक्तान्तनेत्र: सुविभक्तगात्र: स्निग्धच्छवि: सत्वगुणोपपन्न: ।

क्लेशक्षमो मानयिता गुरूणां ज्ञेयो बलासप्रकृतिर्मनुष्य: ॥ प्रियव्रत शर्मा/ सु.शा. 4/70/164/सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010/

64. दृढशास्त्रमति: स्थिरमित्रधन: परिगण्य चिरात् प्रददाति बहु ।

परिनिश्चितवाक्यपद: सततं गुरूमानकरश्च भवेत् स सदा ॥

ब्रह्मरूद्रेन्द्रवरूणै: सिंहाश्वगजगोवृषै: ।

ताक्ष्येहंससमानूका: श्लेषमप्रकृतयो नरा: ॥/ प्रियव्रत शर्मा/ सु.शा. 4/70/164-165/ सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010/

65. प्रकोपो वाऽन्यथाभावो क्षयो वा नोपजायते।

प्रकृतीनां सवभावेन जायते तु गतायुष: ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/77/362/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

66. प्रकृतिमिह नराणां भौतिकीं केचिदाहु:। प्रियव्रत शर्मा/ सु.शा. 4/76/165/ सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010/

67. स्थिरविपुलशरीरः पार्थिवश्च क्षमावाञ्ः | प्रियव्रत शर्मा/ सु.शा. 4/76/165/ सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010/

68. शुचिरथ चिरजीवी नाभसः खैर्महद्धिः॥ प्रियव्रत शर्मा/ सु.शा. 4/76/165/ सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010/

69. महाप्रकृतयस्त्वेता ....|रजःसत्त्वतमःकृताः। वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/99/363/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

70. ....रजःसत्त्वतमःकृताः।

प्रोक्ता लक्षणतः सम्यग्भिषक् ताश्च विभावयेत् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/99/363/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

71. कायानां प्रकृतीर्ज्ञात्वा त्वनुरूपां क्रियां चरेत् । वैद्य जयदेवजी त्रिकमजी आचार्य / सु.शा. 4/98/363/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

72. सप्तैते सात्विकाः काया | वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 4/88/362/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

73. शौचमास्तिक्यमभ्यासो वेदेषु गुरूपूजनम्। प्रियातिथित्वमिज्या च ब्रहमकायस्य लक्षणम् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य / सु.शा. 4/81/362/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/ 2008/

74. तद्यथा- शुचिं सत्याभिसन्धं जितात्मनं संविभागिनं

ज्ञानविज्ञानवचनप्रतिवचनसंपन्नं स्मृतिमन्तं

कामक्रोधलोभमानमोहेष्यर्ाहर्षामर्षापेतं समं सर्वभूतेषु ब्राह्मं विद्यात् ॥ / प्रो.

रामकरण शर्मा व वैद्य भगवानदाश/ च.शा. 4/37(1)/407/वोलुम-2 /

वाराणसी /चौखम्बा कृष्णदाष एकेडमी/ 2013/

75. ऐश्वर्यवन्तमादेयवाक्य यज्वानं शूरमोजस्विनं तेजसोपेतमक्लिष्टकर्माणं

दीर्घदर्शिनं धर्मार्थकामभिरतमैन्द्रं विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी

आचार्य/ च. शा. 4/37(3)323/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका /

वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

76. महात्म्यं शौर्यमाज्ञा च सततं शास्त्रबुद्धिता ।

भृत्यानां भरणं चापि माहेन्द्रं कायलक्षणम् ॥:॥ प्रियव्रत शर्मा/ सु.शा.

4/78/166 / सुश्रुत संहिता- वोलुम-2 / वाराणसी/चौखम्बा विष्वभारती

प्रकाशन/ 2010 /

77. शूरं धीरं शुचिमशुचिद्वेषिणं यज्वानमम्भोविहाररतिमक्लिष्टकर्माणं

स्थानकोपप्रसादं वारूणं विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ च.

शा. 4/37(5)323/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी

/चौखम्बा सुभारती प्रकाशन/ 2009/

78. शीतसेवा सहिष्णुत्वं पैङ्गल्यं हरिकेशता ।

प्रियवादित्वमित्येतद्वारूणं कायलक्षणम् ॥॥:॥ प्रियव्रत शर्मा/ सु.शा.

4/79/166 / सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती

प्रकाशन/ 2010

79. स्थानमानोपभोगपरिवारसंपन्नं धर्मार्थकामनित्यं शुचिं सुखविहारं

व्यक्तकोपप्रसादं कौबेरं विद्यात् ॥ वैध जयदेवजी त्रिकमजी आचार्य/ च. शा.

4/37(6)323 / चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

80. मध्यस्तथा सहिष्णुत्वंमर्थस्यागमसंचयौ ।

महाप्रशवशक्तित्वं कौबेरं कायलक्षणम् ॥ प्रियव्रत शर्मा/ सु.शा. 4/80/166/

सुश्रुत संहिता-वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010

81. प्रियनृत्यगीतवादित्रोल्लापकश्लोकाख्यायिकेतिहासपुराणेषु   कुशलं-
गन्धमाल्यानुलेपनवसनस्त्रीविहारकामनित्यमनसूयकं गान्धर्वं विधात् ॥

वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 4/37(7)323/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

82. गन्धमाल्यप्रियत्वं च नृत्यवादित्रकामिता ।

विहारशीलता चैव गान्धर्वं कायलक्षणम् ॥/ प्रियव्रत शर्मा/ सु.शा. 4/81/166/

सुश्रुत संहिता-वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010

83. लेखास्थवृत्तं प्राप्तकारिणमसप्रहार्यमुत्थानवन्तं स्मृतिमन्तमैश्वर्यलम्भिनं व्यापगतरागेष्र्याद्वेषमोहं याम्यं विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 4/37(4)323 चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

84. प्राप्तकारी दृढोत्थानो निर्भय: स्मृतिमाञ्छुचि: ।

रागमोहमदद्वेषैर्वर्जितो याम्यसत्त्ववान् ॥/ प्रियव्रत शर्मा/ सु.शा. 4/82/166/

सुश्रुत संहिता-वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010

85. इज्याध्ययनव्रतहोमब्रह्मचर्यपरमतिथिव्रतमुपशान्तमदमानरागद्वेषमोह लोभरोषं प्रतिभावचनविज्ञानोपधारणशक्तिसंपन्नमार्ष विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 4/37(2)323 / चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

86. जपव्रतब्रह्मचर्यहोमाध्ययनसेविनम् ।

ज्ञानविज्ञानसंपन्नमृषिसत्त्वं नरं विदुः ॥/प्रियव्रत शर्मा/ सु.शा. 4/83/166/ सुश्रुत संहिता-वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010

87. प्रजावन्तं क्रियावन्तं धर्मशीलं जगत्प्रियम् ।

अनीर्ष्यमशठं प्राज्ञः प्रजापात्यं वदेच्छुचिम् ।। पं हेमराज शर्मा-श्री सत्यपाल भिषगाचार्य / का.सं/सू.28/ पृष्ठ न. 51 / काश्यप संहिता सू. / चौखम्बा संस्कृत संस्थानम्/ वाराणसी / 2013

88. शूरं चण्डमसूयकमैश्वर्यवन्तमौपधिकं रौद्रमननुक्रोशमात्मपूजकमासुरं विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 4/38(1)323/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

89. ऐश्वर्यवन्तं रौद्रं च शूरं चण्डमसूयकम॥

एकाशिनं चौदरिकमासुरं सत्त्वमद्दशम् ।/ प्रियव्रत शर्मा/ सु.शा. 4/84-85/167/ सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010/

90. क्रुद्धशूरमक्रुद्धभीरूं तीक्ष्णमायासबहुलं संत्रस्तगोचरमाहारविहारपरं सार्पं विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 4/38(4)324/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

91. तीक्ष्णमायासिनं भीरूं चण्डं मायान्वितं तथा ॥

विहारचारचपलं सर्पसत्त्वं विदुर्नरम् ।/ प्रियव्रत शर्मा/ सु.शा. 4/85-86/167/ सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010/

92. अनुषक्तकाममजस्रमाहारविहारपरमनवस्थितममर्षणमसंचयं   शाकुनं

विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 4/38(6)324/ चरक

संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती

प्रकाशन/ 2009/

93. प्रवृद्धकामसेवी चाप्यजस्राहार एव च ॥

 अमर्षणोऽनवस्थायी शाकुनं कायलक्षणम् ॥/ प्रियव्रत शर्मा/ सु.शा. 4/86-

87/167/ सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती

प्रकाशन/ 2010

94. अमर्षिणमनुबन्धकोपं छिद्रप्रहारिणं क्रूरमाहारातिमात्ररूचिमामिषप्रियतमं

स्वप्नायासबहुलमीर्ष्युं राक्षसं विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य

/ च. शा. 4/38(2)323-324/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका /

वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

95. एकान्तग्राहिता रौद्रमसूया धर्मबाह्यता

भृशमात्रं तमश्चापि राक्षसं कायलक्षणम् ॥ प्रियव्रत शर्मा/ सु.शा. 4/86-

87/167/सुश्रुत संहिता-वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती

प्रकाशन/2010

96. महाशनं स्त्रैणं स्त्रीरहस्काममशुचिं शुचिद्वेषिणं भीरूं भीषयितार

विकृतिविहाराहारशीलं पैशाचं विद्यात् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य /

च. शा. 4/38(3)324/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका /

वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

97. उच्छिष्टाहारता तैक्ष्ण्यं साहसप्रियता तथा ॥

स्त्रीलोलुपत्वं नैर्लज्यं पैशाचं कायलक्षम् ।/ प्रियव्रत शर्मा/ सु.शा. 4/88-89/167/ सुश्रुत संहिता-वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010

98. आहारकाममतिदुःखशीलाचारोपचारमसूयकमसंविभागिनमतिलोलुपमकर्म शीलं प्रेतं विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य / च. शा. 4/38(5)324/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

99. असंविभागमलसं दुःखशीलमसूयकम् ॥

लोलुपं चाप्यदातारं प्रेतसत्त्वं विर्दुनरम्‌/ प्रियव्रत शर्मा/ सु.शा. 4/89-90/167 सुश्रुत संहिता- वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010

100.   निराकरमिष्णुममेधसं जुगुप्सिताचाराहारं मैथुनपरं स्वप्नशीलं पाशवं विद्यात् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 4/39(1)324/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

101. दुर्मेधस्त्वं मन्दता च स्वप्ने मैथुननित्यता ।

निराकरिष्णुता चैवविज्ञेयाः पाशवाः गुणाः ॥/ प्रियव्रत शर्मा/ सु.शा. 4/91/168/ सुश्रुत संहिता-वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/ 2010

102. भीरूमभुधमाहारलुब्धमनवस्थितमनुषक्तकामक्रोधं सरणशीलं तोयकामं मात्स्यं विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 4/39(2)324/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

103. अनवस्थितता मौर्ख्य भीरूत्त्वं सलिलार्थिता ।

परस्पराभिमर्देश्च मत्स्यसत्त्वस्य लक्षणम् ॥/ प्रियव्रत शर्मा/ सु.शा. 4/92/168 / सुश्रुत संहिता-वोलुम-2 / वाराणसी/चौखम्बा विष्वभारती प्रकाशन/ 2010

104. अलसं केवमभिनिविष्टमाहारे सर्वबुद्ध्यङ्गहीनं वानस्पत्यं विद्यात् ॥ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 4/39(3)324 / चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

105. एकस्थानरतिर्नित्यमाहारे केवले रत: ॥ वानस्पत्यो नर: सत्त्वधर्मकामार्थवर्जित: ॥/ प्रियव्रत शर्मा/ सु.शा. 4/93/168/ सुश्रुत संहिता-वोलुम-2 / वाराणसी /चौखम्बा विष्वभारती प्रकाशन/2010

106. प्रो. के. आर. श्रीकान्त मूर्ति /अ. हू. शा. 3/7/393 / / प्रथम वोल्युम / वाराणसी / चौखम्बा कृष्णदाश प्रकाशन /2013

i) 09 Chapter 6 Review of Literature (Hamilton Norwood Scale)

Considering *Prakriti* or treatment of the subject it is important to understand just how far hair loss has progressed. For this purpose Hamilton and Norwood have advised a scientific scale to determine the grade of hair loss.

Men typically lose hair in several patterns. The most common are receding at the temples, on the top back of the head known as vertex, and diffuse thinning where hair overlarge areas begins to thin, without a specific change in the hair line. Combinations of these types of looses also occur. The following scale can be used to categorize level of male pattern baldness.

This hair loss pattern is used in this study.

This scale is not mentioned in *Ayurvedic Samhitas*. Volunteers assessed on Hamilton Norwood Baldness Scale as per below dividing the scalp in five regions according to hair loss pattern and after then the assessment of *Deha Prakriti* done.

There are also different regions of the scalp where hair loss occurs, each area has a name which describes the exact region where the hair loss is taking place described as in figure No.-1, Regions of scalp.
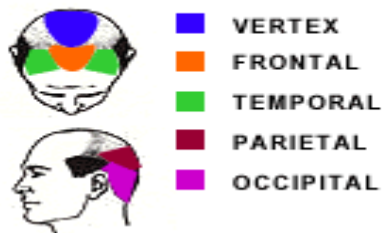
Figure No. 1 Showing Regions of the scalp

i) 09 Chapter 6 Review of Literature (Hamilton Norwood Scale)

Hamilton Norwood baldness Scale

The Hamilton-Norwood scale is a way of measuring male pattern baldness. It was introduced by Dr. James Hamilton in the 1950s and later revised and updated by Dr. O' Tar Norwood in the 1970s. The most widely accepted standard is the Norwood classification for men it is used in now days for research works. There are 2 main types of balding, anterior (front) and vertex (back), as this alternate view of the Norwood scale shows. With this technique, we can address any extent of baldness from early loss along the frontal hairline (Norwood Type I) to severe global loss (Norwood Type VII) as this scale is categorized in seven stages. Stage I shows minimal to no hair loss along the fronto-temporal expanse. There won't be a Stage 1 because it's the stage where you have no hair loss. [1, 2, and 3]

i) 09 Chapter 6 Review of Literature (Hamilton Norwood Scale)
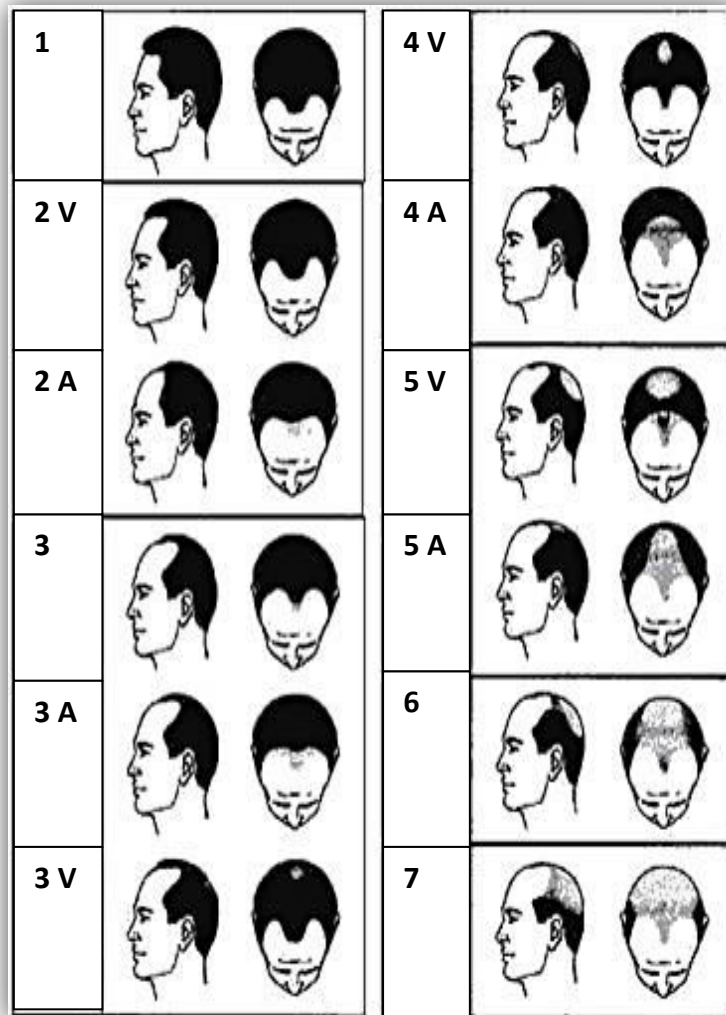
Figure No.-2, Showing Hamilton Norwood Scale

The Hamilton Norwood Scale is categorized from **Stage 1 – 7**, also simplified into **2 sections.**

The section **(A)** will be the Anterior MPB which means the receding starts from the front of particular's scalp.

The section **(V)** will be the Vertex MPB which begins from the crown (top).

i) 09 Chapter 6 Review of Literature (Hamilton Norwood Scale)

Either way, both ends up with the same condition at stage 6 and 7 of the Norwood Scale. There won't be a Stage 1 in next figure because it's the stage where particular have no hair loss as below figure.

Anterior Male Pattern Baldness
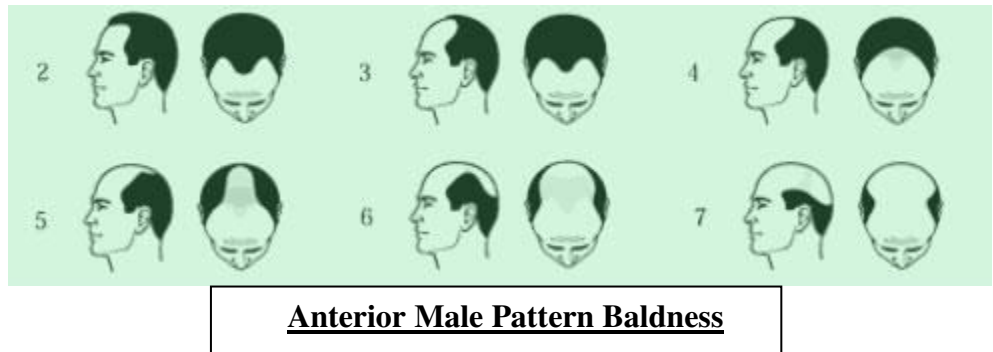
Figure No. 3 showing anterior and vertex hair loss

Vertex Male Pattern Baldness
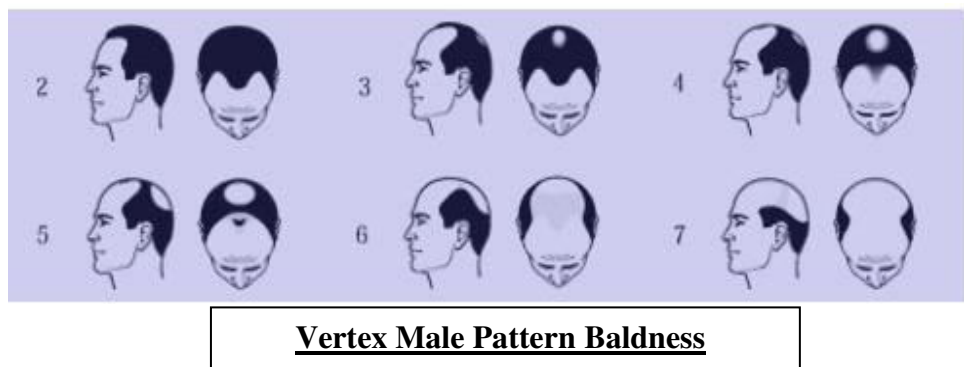
Figure No. 4 showing anterior and vertex hair loss

Stage 1

Subject has no hair loss.

Stage 2

i) 09 Chapter 6 Review of Literature (Hamilton Norwood Scale)

A: There are triangular, usually symmetrical, areas of recession at the frontotemporal hairline. It shows some minimal receding hairline in the front or the side of scalp.

The hairline is anterior to the coronal plane and 2 cm anterior to the external auditory meatus.

V: There may be small thinning circle in the crown area.

Stage 3

A: Same receding pattern as Stage 2 but there it gets deeper to the back. This represents the minimal extent of hair loss sufficient to be considered as baldness according to Norwood. There are deep symmetrical recession at the temples that are bare or only sparsely covered by hair.

The hairline has receded back to a point between the limit of Type IIA and the level of the external auditory meatus.

V: The hair loss is primarily from the vertex with limited recession of the frontotemporal hairline that does not exceed the degree of recession seen in Type III A.

Stage 4

A: The frontotemporal recession is more severe than in Type 3A.

The hairline has receded beyond the external auditory meatus but has not reached the vertex.

V: The vertex balding will be quite noticeable for an inch or two and the

front part also starts to thin dramatically towards the vertex.

The two areas of hair loss in stage 4 are separated by a band of moderately dense hair that extends across the top. This band connects with the fully haired fringe on the sides of the scalp.

Stage 5

A: The balding now reaches to the vertex of scalp. Subject's frontal region

is almost gone. The area of denudation includes the vertex.

The band of hair across the crown is narrower and sparser and the vertex and frontotemporal regions of hair loss are bigger.

i) 09 Chapter 6 Review of Literature (Hamilton Norwood Scale)

V: An obvious big patch in the vertex area with the balding from the frontal area almost reaches the vertex.

Stage 6

At this point, there won't be any difference from Vertex and anterior thinning. Whole frontal and top part of head is a goner.

The bridge of hair that crosses the crown is gone with only sparse hair remaining. The frontotemporal and vertex regions are joined together and the extent of hair loss is greater.

Stage 7

The final stage now hair has totally receded all the way back to the base of head and just slightly above ears.

The most severe form of hair loss and only a narrow band of hair in a horseshoe shape remains on the sides and back of the scalp. This hair is usually not dense and may be quite fine.

i) 09 Chapter 6 Review of Literature (Hamilton Norwood Scale)

The Hamilton-Norwood Scale for Male Pattern Baldness

MILD
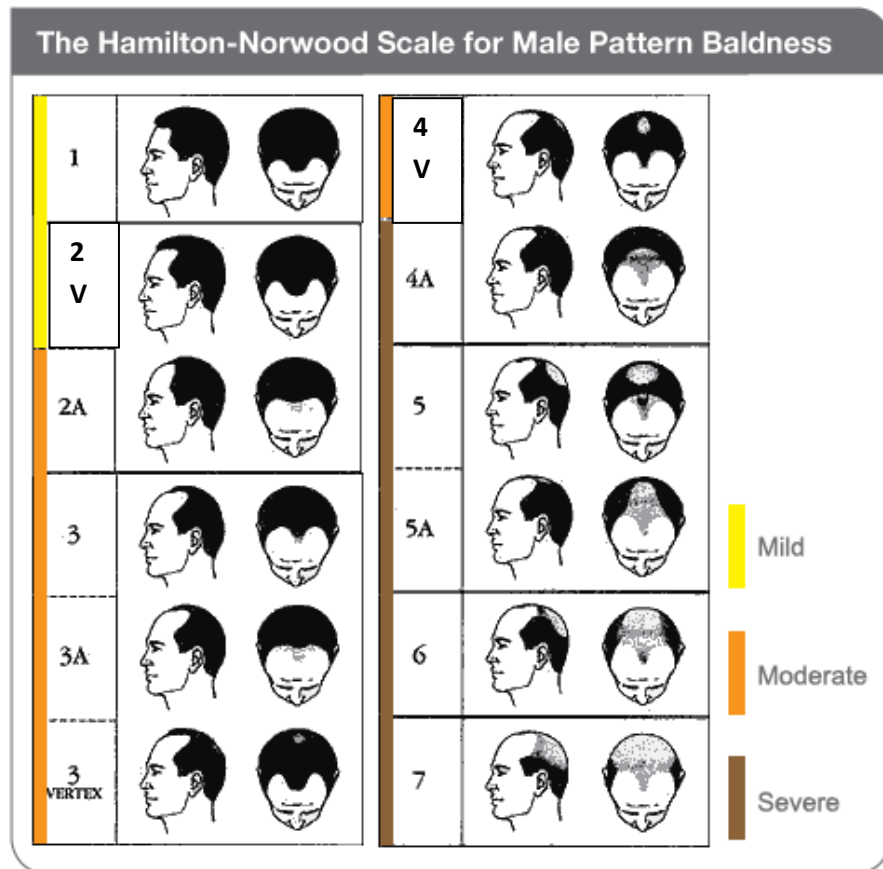
MODERATE

SEVERE

Figure No.-5 Showing Mild, Moderate and Severe of baldness.

Parameters

In present study the parameters of *Khalitya* (baldness) used as per bellow

1. Mild *Khalitya* (mild hair loss) Stages 1and 2V hair loss
2. Moderate *Khalitya* (moderate hair loss) Stages 2A,3A,3V&4V considered

i) 09 Chapter 6 Review of Literature (Hamilton Norwood Scale)

3. Severe *Khalitya* (severe hair loss) Stages 4A to 7 considered

References

1. Drirk Kranz / Young men's coping with Androgenetic alopecia-(HNS), Body Image/ Volume 8, issue 4/343-348/ Sep-2011/

2. M.Bienova, R Kucerova / Androgenetic Alopecia and current methods of treatment-(HNS)/ ADAA/ 14(1)/5-8/2005/

3. Sehqual VN Kakr - Agarwal Male pattern Androgenetic alopecia in an Indian context-(HNS)/JEADV/ A/Volume-21,Issue 4/473-479/2007/

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

Introduction

Hair loss, baldness or *Khalitya* (medically known as alopecia) is a loss of hair from the head.

Hair has a great importance in human being life, like human communication. Its importance in human communication means that abnormalities like excess hair in hirsutism or hair loss in alopecia cause psychological distress.

Khalitya or baldness according to great *Aacharya Sushruta* is a state of falling hair due to vitiated and increased state of *Pitta* assorted with *Vayu*, after that the *Kapha* mixed with *Rakta* also joins in this event. [1] *Dalhan* as well as *Videha* also says in his commentary in above reference that *Khalitya* effects only in males not in females [2] so we tried to explore in males only.

The nature of hair falling is *Khalitya* or *Khaltya* (baldness). [3] It is morbid baldness. [4]

Baldness *(Khalitya) Ayurvedic* View

1. *Khalitya* as *Rasaja diseases*:- [5]

Of all diseases *Vata, Pitta and Kapha* are verily the root; because of having their symptoms, their subsidence and scriptural evidence. As the entire creation existing as universe is never distinct from *Sattva, Rajas* and *Tamas*, the entire group of disorders present in different forms does not exist without *Vata, Pitta and Kapha*. Variations are due to combination of *Doshas, Dhatus* and *Malas;* specific sites and etiological factors; to *Dhatus*, vitiated excessively by *Doshas*, nomenclature is given *Rasaja, Raktaja,* etc.

It is only by indirect application that diseases are said to be originated by *Dhatuja* in fact the diseases caused in *Dhatus* excessively vitiated by *Doshas* are known as *Rasaja* (Produced by/in *Rasa*) etc; such as in burnt by *Ghee*, oil, copper or iron, heating is indirectly

referred to by *Ghee* etc. Similarly in diseases caused by *Rasa*; is *Doshas* located in *Rasa Dhatu* etc. indirectly referred to.

2. '*Khalitya*' as diseases due to vitiated *Rasa Dhatu* [6]

Following diseases are caused by the vitiation of *Rasa Dhatu,* disinclination for food, anorexia, impotency, asthma, emaciation, loose of power of digestion and premature appearance of wrinkles and gray hairs.

3. As indication of death (*Aristas*) [7]

One whose hair are parted on a boundary line, eye brows are contracted and drooped with eyelashes moving constantly dies soon.

4. As indication of old age [8]

Age is divided into three- 1 Childhood 2. Middle (Adult) 3. Old age; Of them below sixteen years are children, who are subdivided into three- those taking only milk (liquid), those taking milk and food (liquid and solid mixed) and those taking solid food, they are respectively up to the age of one year, two years and thereafter.

Middle age is between sixteen and seventy, its subdivision is – development, youthfulness, fullness and decline; of them the period of development is up to twenty years. Youthfulness is up to thirty years; fullness of all *Dhatus,* sense organs, strength and power.

Thereafter slight decline till seventy; after seventy one is called old whose *Dhatus,* sense organs, strength and power and enthusiasm are decreasing and who is, day by day, attended with wrinkles, graying of hair and baldness, afflicted with complications like cough, dysnoea, etc.

5. Sweet test as beneficial for *Kesha* (Hair) [9]

Sweet taste increases all *Dhatus, Ojas,* semen and breast milk; is beneficial for eyes, hair, and complexion.

6. Drugs and diets having sweet taste are promoting for healthy skin, hair, voice and strength [10]

7. ***Tila* (sesamum) is as beneficial for *Kesha* (Hair)** [11]

Tila is lightly astringent and bitter, sweet, *Madhur* in *Vipaka,* pacifies *Vata* and increases *Pitta,* is checking, *Ushnaveerya,* excellent promoter of strength, unctuous, beneficial for wound as external paste, wholesome for teeth, skin and hair, promotes digestive power and intellect, reduces urine and is heavy.

8. **Fruit of *Gambhari* is wholesome for *Kesha* (Hair)** [12]

Kashmarya (Fruit of *Gambhari*) is agreeable, diuretic, and useful in intrinsic hemorrhage and *Vata*, wholesome for hair, *Rasayana* and intellect promoting.

9. **Matting of hair as premonitory symptom of *Prameha*** [13]

The premonitory symptoms of *Prameha* are burning sensation in palm and sole; unctuousness, sliminess and heaviness of the body parts; sweet and white urine, throat, tongue and teeth, matting of hair and increase of nails.

10. The three vitiated 'Doshas' while initiating the process of manifestation 0f various types of '*Prameha*' produce the premonitory symptoms like matting of the hair. [14]

11. **Pathogenesis of *Khalitya* (Baldness)** [15]

Pitta situated in hair follicles and associated with *Vata* fells hair, thereafter *Kapha* mixed with *Rakta* creates obstruction therein

resulting in non appearance of others. This is known as *Indralupta, Khalitya* or *Rujya.*

12. **Pathogenesis of dandruff (*Darunaka*)** [16]

When ground of hair becomes hard, itching and rough with cracks it is known as *Darunaka* caused by aggravation of *Kapha* and *Vata.*

13. **Pathogenesis of *Palitya* (Greying of hair)** [17]

Body heat caused by anger, grief and exertion along with *Pitta* located in head subject the hair to serve heating which results in *Palitya* (grey hair).

Abnormal greying of hair is caused by anger etc. while the normal one takes place by *Pitta*; otherwise due to identity of body heat and *Pitta* there might be defect of repetition.

14. **Effect of combing during *Ritukala*** [18]

During menstrual period, from the very first day, the women, observing celibacy, should abstain from day sleep, combing etc., why? By day sleep she gives birth to the sleepy like that by combing, he is born bald.

15. **Vital Points related to head hair** [19]

Above temples and at the end of hair line are *Utksepa Marmans,* (on injury) the patient lives till splinter is there or if it falls out after suppuration but never after extraction of the foreign body.

16. **'*Sirasah Pratipuranam*' and hair** [20]

Massage on head eliminates diseases of head, provides softness, length, luxuriance, gloss and blackness in hair, satiety in head, charm on face, saturation in sense organs and filling of vacant head.

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

17. Effect of hair cutting [21]

Cutting of hair (on head and other parts) and nails removes inertia provides pleasure, lightness and charm with increases enthusiasm.

18. Effect of '*Saireyakadi Tail*' on baldness [22]

It should be used, after purifying the body as snuff and massage keeping on the diet of black gram or '*Krasara*'. After a month hair become dense, curly and bee black with new hair appearing on the bald scalp. Moreover, senility does not attack suddenly, excellent strength comes in sensory and motor organs and face becomes free from wrinkles.

19. Result of '*Sompana*' on hair growth [23]

Lord '*Soma*' is only one but has twenty four different forms according to place, name, shape and potency. '*Bhrama*' etc. in early age, created ambrosia named '*Soma*' in order to prevent senility and death. When any subject uses it according to described method applying after a month, subject's head should be tonsured and anointed with paste of '*Usira*' and black sesamum or bathed with milk. Thus after a week hair becomes as bee-black, curly, firm and glossy.

20. Effect of '*Basti*' on hair [24]

Of all the measures, '*Bastikarm*' (enemation) is mentioned as the most important because it performs many functions. Such as having combination of various drugs, performs evacuation, pacification and checking of *Doshas*: acts as aphrodisiac for one whose semen is diminished; promotes development of body in the emaciated; slims the obese, nourishes eyes, removes wrinkles and greying of hair and stabilises youthfulness.

21. '*Dhoompan*' and hair [25]

The person, by the use of smoking, becomes cheerful in sense organs, speech and mind; has firm hair, teeth, beards and moustaches and fragrant and non slimy mouth.

22. '*Nasya*' and '*Khalitya*' [26]

The word '*Nasya*' particularly denotes '*Sneha*' which is administered to those with vacant head for promoting strength also in neck, shoulder and chest or for improving vision.

That should be given with *Sneha* processed with drugs pacifying *Vata* and *Pitta* when head is overcome by *Vata* and in falling of teeth, hair, beards, moustaches, dandruff, tinnitus, defects of vision, hoarseness of voice, nasal diseases, dryness of mouth, premature wrinkles and greying of hair, difficult awaking and other disorders of mouth caused by *Vata* and *Pitta*.

23. '*Nasya*' and '*Khalitya*' [27]

Snuffing pacifies disorders located in supraclavicular region, provides clarity to sense organs, fragrance in mouth and strength in jaw, teeth, head, neck, *Trika*, arms, chest, prevents appearance of wrinkles, greying of hair, baldness and freckles.

24. '*Mahakalyanaka Ghritam*' and Hair [28]

This '*Mahakalyanaka Ghritam*', when used, alleviates all types of fevers; it is auspicious and only by sight and touch removes all diseases. By the regular use of this one becomes invincible to all creatures and lives for three hundred years free from wrinkles and grey hair.

25. Advantages of Nasal Therapy [29]

One who practises nasal therapy in time according to the prescribed method, his hair and beard never become white or gray; he never experiences hair fall these rather grow luxuriously.

26. **Oiling of head and '*Khalitya*'** [30]

One who applies *Til* oil on his head regularly does not suffer from headache, baldness, greying of hair, nor do his hair fall.

27. '*Tila*'(sesamum) is hot in potency, good for the skin, cold on touch, good for hairs, strengthening, not easily digestible, produces little quantity of urine, pungent at the end of digestion and increases intelligence, digestive function, '*Kapha*' and '*Pitta*'. [31]

28. **Care of hairs and nails** [32]

The dressing and cutting of hair, beard and nails adds the corpulence, libido, longevity, cleanliness and beauty.

29. **Signs and symptoms of vitiation of *Asthi Dhatu* & '*Khalitya*'** [33]

Signs and symptoms of the diminution of *Asthi* are falling of hair, nails, hair of the beard including moustaches and teeth, exertion and looseness of joints.

30. **Excess using of salt and '*Khalitya*'** [34A]

Drugs and diets having saline taste if used excess they cause obstruction of the function of senses and production of premature wrinkling, greying and baldness.

1. Salt is associated with hot and sharp properties. It is neither very heavy nor very unctuous. It is deliquescent and is capable of producing laxative

effect. People who are accustomed to the excessive use of salt, suffer from premature baldness, grey hair and wrinkles in the skin. [34B]

2. Addiction to the intake of salt makes the offspring suffer from early onset of wrinkles in the skin, greying of hair and baldness. [34C}

3. Salt used in excess, it causes increase of '*Asra*'(blood) and '*Pavana*'*(Vata)*, causes baldness, greying of hair, wrinkles of the skin, thirst, leprosy(skin diseases), poison effect, '*Visarpa*' and diminution of strength of the body. [34D]

31. <u>Hair diseases due to vitiated *Asthi Dhatu*</u> [35A]

Following diseases are caused by the vitiation of *Asthi Dhatu*, hypertrophy of bones and teeth, cracking sensation in the teeth and pain in bone, discoloration and morbidity in hair of the head, small hair of the body, nail as well as beard.

32. Decrease of '*Asthi Dhatu*' causes pain in joints, falling off of the teeth, hair, nails etc. prematurely. [35B]

33. <u>'*Khalitya* and excess using of Alkalies</u> [36A]

Alkali is associated with hot, sharp and light properties. In the beginning it works as a deliquescent and afterwards as a desiccant. It is used for suppuration, cauterisation and penetration. Its excessive use produces injurious effects on hair, eye, heart, and virility. People of villages, towns, cities, and countries where this is continuously used in excess; suffer from blindness, impotency, baldness, grey hair and heart diseases. Therefore alkali should not be used in excess.

34. All ('*Ksaras*') alkalies are very penetrating; very hot in potency, destroys worms, easily digestible, vitiate '*Pitta*' and '*asrak*' (blood) help digestion of other

substances, help break up hard masses, not good for the heart, being pungent and salty in taste are not good to semen, '*Ojas*' eyes and hair. [36B]

35. **Hairs and parasites of the blood** [37]

Blood born parasites specifically '*Kesada*' (Lit. which eat away hair of the head) and '*Lomada*' (Lit. which eat away the small hair of the body) have effects in this manner that destruction of the hair from the head, face, other parts of the body, eye lashes and nails.

36. **'*Tvak Sara*' and hairs** [38]

Individuals having the excellence of '*Tvak*' or skin are characterized by unctuous, smooth, soft, clear, fine, less numerous, deep rooted and tender hair and lustrous skin.

37. **'*Meda Sara*' and hairs** [39]

Individuals having the excellence of '*Meda Dhatu*' are characterized by the abundance of unctuousness in complexion, voice, eyes, hair of the head and other parts of the body, nail, teeth, lips, urine and feces.

38. **Enumeration of hair** [40]

Hair can be ascertained from inference only. '*Kesha*' (Hair), '*Samashru*' (beard & moustaches) and '*Loman*' (small hair) are enumerated as 29946(Twenty nine thousands nine hundred forty six).

39. **Hair fall as Bad prognosis of incurable type of *Javara*** [41]

If deep seated and acute fever occurs in a weak and in an emaciated patient, and continues for several nights, then it is incurable. In such diseases; the hairs of the head fall apart to produce a straight line.

40. '*Kanakarista*' and '*Khalitya*' [42]

It also cures '*Vali*' (appearance of wrinkles in the body), '*Palita*' (appearance of premature dry hair) and '*Khalitya*' (baldness) caused by the vitiation of '*Doshas*'.

41. '*Kesha*' is as '*Mala*' (waste product) [43]

'*Kesha*' (big hair), and '*Loman*' (small hair) are '*Mala*' (waste product) of '*Asthi Dhatu*' a tissue element.

42. Poisoned oil and hair fall [44]

If the oil for application over the head is poisoned, then the patient suffers from hair fall, headache and tumours in the head.

43. Line of treatment of hair diseases [45]

In '*Khalitya*' (alopecia), '*Palitya*' (greying of hair), '*Vali*' (appearance of wrinkles over the face), and '*Hari-loman*' (tawny hair), the patient should, in the beginning, be given elimination therapies, and thereafter, be given '*Nasya*' (inhalation therapy) with medicated oil, and application of paste of drugs over the head and face.

44. '*Anutaila*' and '*Khalitya*' [46]

Inhalation therapy with medicated oils or with '*Anu-taila*' cures alopecia and greying of hair.

45. Warm water bath and hairs [47]

Pouring warm water over the body bestows strength, but the same over the head, makes for loss of strength of the hair and eyes.

46. Oil of '*Aksa*'(*Vibhitaka*) and hairs [48]

'*Aksa*' tail oil obtained from seeds of '*Vibhitaka*' is sweet, cold in potency good for the hair, hard to digest, mitigates *Pitta* and *Vata*.

47. '*Lasuna*' and hairs [49]

'Lasuna' is highly penetrating, hot in potency, pungent in taste, and at the end of digestion, makes the bowels to move, good for the heart and hairs.

48. '*Sami*' and hairs [50]

'*Samya*' (fruit of '*Sami*') is not easily digestible, hot in potency, destroys the hairs and causes dryness

49. Application of paste of drugs over the face & hair [51]

If properly done, it cures premature greying of hair, discoloured patches, wrinkles, blindness, and bluish vision.

50. Fatal signs connected with hair beyond particular appearance [52]

He, whose hair on the head and on the body appearing as though smeared with oil, though not actually smeared is fatal sign.

51. '*Kalanisa*' and hair [53]

Seeing a women who is black, sinful, not performing, traditional rites (including in misconduct); having long hairs, nails and hanging breasts, wearing, discoloured garlands and dress- is like seeing '*Kalanisa*' (goddess of death) is a fatal sign.

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

Baldness Modern View

According to modern the baldness or *Khalitya* is divided in two types as below:-

A. **Male**
B. **Female**

Female androgenic alopecia is known as female pattern baldness, although its characteristics can also occur in males. It more often causes diffuse thinning without hairline recession; and, like its male counterpart, rarely leads to total hair loss. The Ludwig scale grades are used to observe severity of androgenic alopecia in females.

In this study only the male pattern baldness is selected so there baldness is used only for male pattern baldness.

Baldness can refer to general hair loss or androgenic alopecia (male pattern baldness). Some types of baldness can be caused by alopecia areata, an autoimmune disorder. The extreme forms of alopecia areata are alopecia totalis, which involves the loss of all head hair, and alopecia universalis, which involves the loss of all hair from the head and the body.

It is believed that androgens are the main regulator of human hair follicles, changing small vellus follicles producing tiny, virtually invisible hair into larger intermediate and terminal follicles making bigger, pigmented hair. The response to androgens varies with the body site as it is specific to the hair follicle itself. Normally around puberty, androgens stimulate axillary and pubic hair in sexes, plus the beard, etc. in men, while later they may also inhibit scalp hair growth causing androgenetic alopecia. Androgens act within the follicle to alter the mesenchyme-epithelial cell interactions, changing the length of time the hair is growing, the dermal papilla size and dermal papilla cell, keratinocyte and melanocyte activity.

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

Role of human hair

Human hair growth is very important to our health and well-being. This is despite its growth being so reduced compared to most other mammals. Although often seen as rather irrelevant medically because human hair loss is not life-threatening, hair is highly significant for people in many different cultures around the world.

Human hair's main functions are protection and communication; it has virtually lost the insulation and hide roles important in mammals, although seasonal variations in growth and our remaining ability to erect our hair when cold or nervous indicate the evolutionary history.

The visible hair produced in childhood are mainly protective; eyebrows and eyelashes stop things from entering the eyes, while scalp hair probably protects the head and neck from sunlight, cold, and physical damage. Head hair is also important for social communication.

Human hair is also involved in sexual communication. The development of visible pubic and axillary hair signals puberty in both sexes, while men exhibit sexual maturity with visible beard, chest, and upper pubic diamond hair. These important communication roles explain why hair disorders have serious psychological consequences and negative impact on the quality of life even among.

Androgenic alopecia, Baldness or *Khalitya*:-

Androgenic alopecia is hair loss that occurs due to an underlying susceptibility of hair follicles to androgenic tininess. It is the most common cause of hair loss. Men typically present with hairline recession at the temples and vertex balding, while women normally diffusely thin over the top of their scalps. Both genetic and environmental factors play a role, and much etiology remain unknown. Since androgens and androgen receptors (AR) are the initiating cause of androgenic alopecia, hair loss or *Khalitya*, their genetic corollaries are a subject of much research.

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

Classic androgenic hair loss in males begins above the temples and vertex, of the scalp as we divided the scalp in two regions in this study. As it progresses, a rim of hair at the sides and rear of the head develops. The Hamilton-Norwood scale has been developed to grade androgenic alopecia in males which we used to define the grade of hair loss or *Khalitya* in this study.

Causes of baldness: - These can be explained as external and internal but regarding our aim and objective internal causes are required. Internal causes are as below.

Physiological   **Pathological**
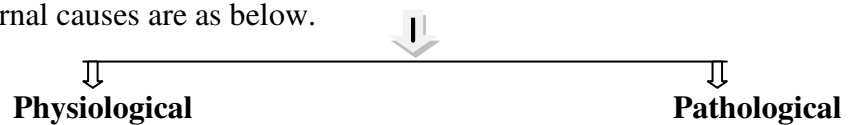
Our study is done under the department of *Kriya Sharir* which represents physiology in the *Ayurveda* so there we will discuss only for physiological causes.

Physiological causes for Baldness Or *Khalitya*

1. **Hormonal Role :-**

Research indicates that the initial formation of pilosebaceous units begins in uterus. [54] Pilosebaceous units have an important role in hair growing and baldness due to their functions and anatomical positions.

The sebaceous glands are microscopic exocrine glands in the skin that secrete an oily or waxy matter, called sebum, to lubricate and waterproof the skin and hair of mammals. In humans, they are found in the greatest number on the face and scalp, and are also found on all parts of the skin except the palms of the hands and soles of the feet. The type of secretion of the sebaceous glands is referred to as holocrine.

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

There are two types of sebaceous glands concerned to hair loss or *Khalitya* study, those connected to hair follicles, in pilosebaceous units, and those that exist independently.

Sebaceous glands are found in hair-covered areas, where they are connected to hair follicles. One or more glands may surround each hair follicle, and the glands are surrounded by arrector pili muscles. The glands have an acinar structure (many-lobed berry), in which multiple glands branch off a central duct. The glands deposit sebum on the hair, and bring it to the skin surface along the hair shaft; which has properties like *Kapha Dosha*. The structure consisting of hair, hair follicle, arrector pili muscles, and sebaceous gland is an epidermal invagination known as a pilosebaceous unit.

Sebaceous glands are also found in hairless areas (glorious skin) of the eyelids, nose, penis, labia minora, the inner mucosal membrane of the cheek, and nipples. Some sebaceous glands have unique names. Sebaceous glands on the lip and mucosa of the cheek are known as Fordyce spots, and glands on the eyelids are known as meibomian glands. Sebaceous glands of the breast are also known as Montgomery's glands.

Function:-

1. Sebaceous glands secrete the oily, waxy substance called sebum (Latin: fat, tallow)
2. Sebum waterproofs and lubricates the skin and hair of mammals
3. Sebaceous secretions in conjunction with apocrine glands also play an important thermoregulatory role.
4. Importance in delaying dehydration, in hot conditions, the secretions emulsify the sweat produced by the eccrine glands and this produces a sheet of sweat that is not readily lost in drops of sweat.

5. In colder conditions, the nature of sebum becomes more lipids and in coating the hair and skin, rain is effectively ward off.

6. Sebum is produced in a holocrine process, in which cells within the sebaceous gland rupture and disintegrate as they release the sebum and the cell remnants are secreted together with the sebum. The cells are constantly replaced by mitosis at the base of the duct.

7. Sebaceous glands are part of the body's integumentary system and serve to protect the body against germs. Sebaceous glands are responsible for the secretion of acids that form the acid mantle. This is a very fine, slightly acidic film on the surface of the skin which acts as a barrier to bacteria, viruses and other potential contaminants that might penetrate the skin.

8. The pH of the skin is between 4.5 and 6.2, and this acidity helps to neutralise the primarily alkaline nature of contaminants

9. Sebaceous lipids make an important contribution in maintaining the integrity of the skin barrier, and express both pro-inflammatory and anti-inflammatory properties.

10. Additionally, sebaceous gland secretion provides vitamin E to the upper layers of facial skin

11. Sebaceous glands are involved in skin problems such as acne and keratosis pilaris. In the skin pores, sebum and keratin can create a hyperkeratotic plug called a comedo.
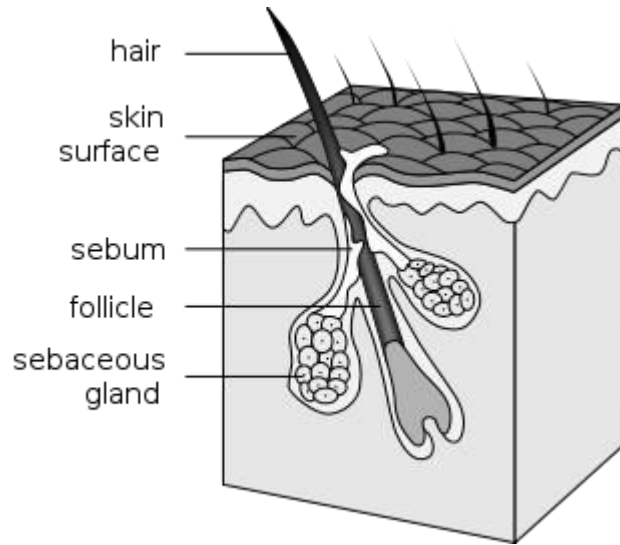
Diagram no.1 Showing Sebaceous gland in relation to hair
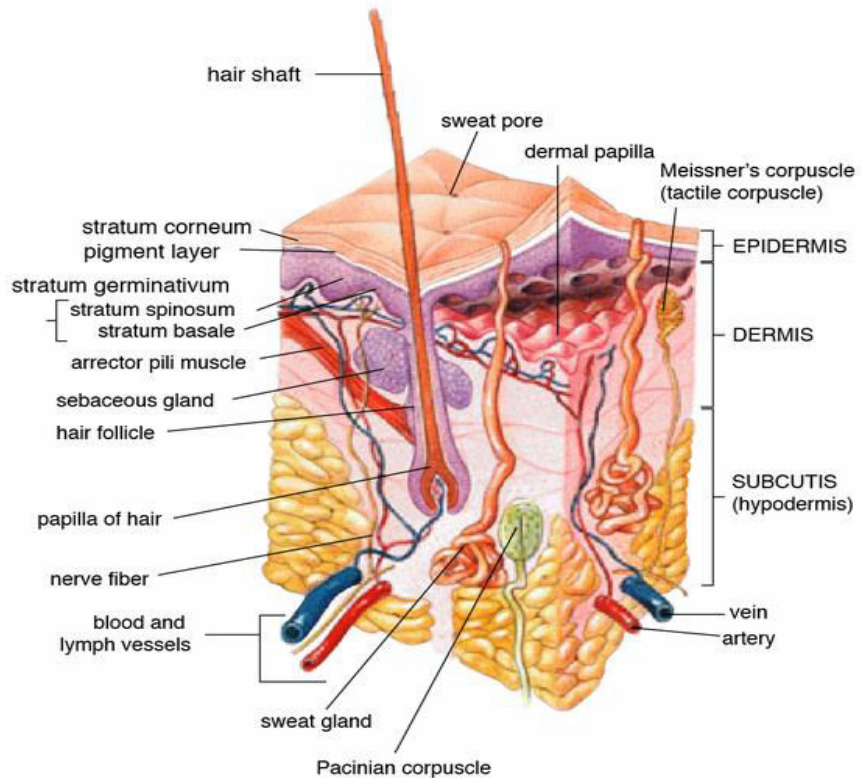
Diagram no.2 Showing Structure of skin

The primarily androgenic physiology is that dihydrotestosterone (DHT) has major contributor at the dermal papillae. Below-normal values of sex hormone-binding globulin, follicle-stimulating hormone, testosterone, and epitestosterone are

present in men with premature androgenic alopecia compared to normal controls.

Androgen:-

Androgen, (from 'andro' Greek word meaning as masculine) also called androgenic hormone or testoid, is the broad term for any natural or synthetic compound, usually a steroid hormone, that stimulates or controls the development and maintenance of male characteristics in vertebrates by binding to androgen receptors. This includes the activity of the accessory male sex organs and development of male secondary sex characteristics. Androgens were first discovered in 1936. Androgens are also the original anabolic steroids and the precursor of all estrogens.

The primary and most well-known androgen is testosterone. Dihydrotestosterone and androstenedione are less known generally, but are equal importance in male development. DHT in the embryo life causes differentiation of penis, scrotum and prostate. Later in life DHT contributes to male balding, prostate growth and sebaceous gland activity.

Below-normal values of sex hormone-binding globulin, follicle-stimulating hormone, testosterone, and epitestosterone are present in men with premature androgenic alopecia compared to normal controls. [55]

Although follicles were previously thought that permanently gone in areas of complete hair loss, they are more likely dormant, as recent studies have shown the scalp contains the stem cell progenitors from which the follicles arose.[56]

Studies have shown that growth and dormancy of hair follicles are related to the activity of insulin-like growth factor at the dermal papillae, which is affected by DHT.

DHT, which stands for Dihydrotestosterone (5α-Dihydrotestosterone), is a male sex hormone, an androgen. 5α-reductase, an enzyme, synthesizes DHT in the adrenal glands, hair follicles, testes and prostate.

Male and female adults can lose hair as a consequence of changes in the metabolism of androgen in the body, men more commonly than women. DHT plays a major role in hair loss. Male pattern baldness, also known as androgenic alopecia or androgenetic alopecia, is caused by the hair follicle's sensitivity to DHT. The follicles shrink, resulting in a shorter lifespan and the abnormal production of hair. It is demonstrated in study that *Igf-I* affects follicular proliferation, tissue remodelling, and the hair growth cycle, as well as folliclular differentiation. [57]

The most important part of the hair follicle is the dermal papilla (papilla of hair), which is responsible for the growth of hair. The dermal papilla cells divide and differentiate to form new hair follicles. The papilla is in direct contact with the skin's blood capillaries, from which it gets its essential nutrients for proper hair follicle growth. The dermal papilla has a large number of androgen receptors (more in males than females). When DHT gets to the dermal papilla, it undermines the absorption of vital nutrients required for healthy hair follicles.

Hair follicles have resting and growing phases. Without proper nutrition, their resting stages get longer while their growing phases get shorter.

Miniaturization in this thesis refers to the progressive shrinking of the hair follicle. Miniaturization occurs because of DHT. Most of cases of male pattern baldness occur because of the effects of DHT on the hair follicles. How much DHT people produce depends almost entirely on their genetic make-up - the more that is produced, the greater and more widespread miniaturization is, resulting in greater

hair loss. Hair grows for shorter periods, becomes lighter, finer and smaller, until it eventually reaches the vellus stage. Vellus hair is light-colour, short, thin and very fine hair - it is barely noticeable and grows on most of the human body, except for on the lips, palms of the hands, soles of the feet, etc.

Dihydrotestosterone (commonly abbreviated to DHT), or 5α-dihydrotestosterone (5α-DHT), also known as androstanolone (5α-androstan-17β-ol-3-one) as well as 17β-hydroxy-5α-androstan-3-one, is a sex steroid and androgen hormone. The enzyme 5α-reductase synthesizes DHT in the prostate, testes, hair follicles, and adrenal glands.

In men, approximately 5% of testosterone undergoes 5α-reduction to form the more potent androgen, dihydrotestosterone (DHT). DHT has two to three times greater androgen receptor affinity than testosterone and has 15-30 times greater affinity than adrenal androgens. [58]

During embryogenesis DHT has an essential role in the formation of the male external genitalia, while in the adult DHT acts as the primary androgen in the prostate and in hair follicles. [59]

DHT is the primary contributing factor in male pattern baldness that results from hair follicle miniaturisation. [60] However, female hair loss is more complex.

Androgens are important in male sexual development around birth and at puberty. They regulate sebaceous glands, apocrine hair growth, and libido. With increasing age androgens stimulate hair growth on the face, but suppress it at the temples and scalp vertex, a condition that has been referred to as the androgen paradox. [61]

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

5-alpha reductase:-

Types 1 and 2-5α reductase enzymes are present at pilosebaceous units in papillae of individual hair follicles. They catalyze formation of the androgens testosterone and DHT, which in turn regulate hair growth. [62]

5α-reductases, also known as 3-oxo-5α-steroid 4-dehydrogenases, are enzymes involved in steroid metabolism. They participate in 3 metabolic pathways:-

1. Bile acid biosynthesis
2. Androgen and estrogens metabolism
3. Prostate cancer.

There are three isoenzymes of 5-alpha reductase, which vary in different tissues with age. The enzyme is produced in many tissues in both males and females, in the reproductive tract, testes and ovaries, skin, seminal vesicles, prostate, epididymis and many organs, including the Nervous System. There are three isoenzymes of 5-alpha reductase: steroid 5α-reductase 1, 2, and 3 (SRD5A1, SRD5A2 and SRD5A3). [63]

Distribution with age of 5-alpha reductase:-

1. **Fetal life: -** 5α-R1 is expressed in fetal scalp and nongenital skin of the back anywhere from 5 to 50 times less than in the adult.

   α-R2 is expressed in fetal prostates similar to adults. 5α-R1 is expressed mainly in the epithelium and 5α-R2 the stroma of the fetal prostate. Scientists looked for 5α-R2 expression in fetal liver, adrenal, testis, ovary, brain, scalp, chest, and genital skin, using immunoblotting, and were only able to find it in genital skin. [64]

2. **After birth**: - the 5α-R1 is expressed in more locations, including the liver, skin, scalp and prostate. 5α-R2 is expressed in prostate, seminal vesicles, epididymis, liver, and to a lesser extent the scalp and skin. Hepatic expression of both 5α-R1 and 2 is immediate, but disappears in the skin and scalp at month 18. Then, at puberty, only 5α-R1 is reexpressed in the skin and scalp.

3. **Male fetuses and throughout postnatal life:-**5α-R1 and 5α-R2 appear to be expressed in the prostate in male fetuses and throughout postnatal life. In adulthood, 5α-R1-3 is ubiquitously expressed. 5α-R1 and 5α-R2 are also expressed, although to different degrees in liver, genital and nongenital skin, prostate, epididymis, seminal vesicle, testis, ovary, uterus, kidney, exocrine pancreas, and the brain. [65]

Androgens have different effects at different follicles: they stimulate IGF-1 at facial hair, leading to growth, but stimulate TGF β1, TGF β2, and IL-6 at the scalp, leading to catagenic miniaturization. [66]

Studies of serum levels of IGF-1 show it to be increased with vertex balding [67] and DHT inhibits IGF-1 at the dermal papillae. [68]

IGF-1 is modulated by IGF binding protein, which is produced in the dermal papilla [69] and DHT inhibits IGF-1 at the dermal papillae [70] Extracellular histones inhibit hair shaft elongation and promote regression of hair follicles by decreasing IGF and alkaline phosphatase in transgenic mice.

Also, crosstalk occurs between androgens and the Wnt-beta-catenin signaling pathway that leads to hair loss. At the level of the somatic stem cell, androgens promote differentiation of facial hair dermal papillae, but inhibit it at the scalp. [71]

Latest serological studies says that men with androgenic alopecia typically have higher 5-alpha-reductase, lower total testosterone,

higher unbound/free testosterone, and higher free androgens, including DHT. [72]

Hair growth and development are influenced by androgens, a blinded, case-control study was undertaken to determine if hair patterning is associated specific hormonal profiles. The study accrued 315 male subjects who were stratified with regard to age, race, and case-control status. Hair-patterning classification and serum levels of total and free testosterone (T), sex hormone binding globulin, and dihydrotestosterone (DHT) were performed. Several strong associations also were found between hormone levels and hair patterning. Men with vertex and frontal baldness had higher levels of free T, when compared to men with either little or no hair loss. [73]

5-alpha-reductase converts free testosterone into DHT, and is highest in the scalp and prostate. DHT is most commonly formed at the tissue level by 5α-reduction of testosterone.

Prolactin:-   Pituitary role:-

Prolactin has also been suggested to have different effects on the hair follicle across gender. [74] Prolactin (PRL), also known as luteotropic hormone or luteotropin, is a protein that in humans is best known for its role in enabling female mammals to produce milk, Prolactin is secreted from the pituitary gland in response to eating, mating, estrogen treatment, ovulation, and nursing. Prolactin is secreted in a pulsatile fashion in between these events. Prolactin also plays an essential role in metabolism, regulation of the immune system, and pancreatic development pituitary prolactin secretion is regulated by endocrine neurons in the hypothalamus, the most important ones being the neurosecretory tuberoinfundibulum (TIDA) neurons of the arcuate nucleus, which secrete dopamine (aka Prolactin Inhibitory Hormone) to act on the D_2 receptors of lactotrophs, causing inhibition of prolactin secretion. The pleiotropic, cytokine-like polypeptide neurohormone prolactin (PRL), primarily produced by the pituitary gland, is most

widely appreciated for its central role in the regulation of lactation and reproduction.

In vitro models show it inhibits hair follicle growth. [75] PRL receptors, expressed in hair follicles (HFs), are functional and that human skin and human scalp HFs are both direct targets and sources of PRL. Latest study data suggest that PRL acts as an autocrine hair growth modulator with catagen-promoting functions and that the hair growth-inhibitory effects of PRL demonstrated here may underlie the as yet ill-understood hair loss in patients with hyper-prolactinemia. In vivo it can inhibit facial hair growth in humans. [76]

Sex hormone-binding globulin:-

Sex hormone-binding globulin (SHBG) or sex steroid-binding globulin (SSBG) is a glycoprotein that binds to the sex hormones, androgen and estrogen. Other steroid hormones such as progesterone, cortisol, and other corticosteroids are bound by transcortin. SHBG is found in all vertebrates apart from birds.

2. **Age:-**

Androgens stimulate growth of facial hair, but can suppress scalp hair, a condition that has been called the 'androgen paradox. American Academy of Dermatology reports that in adult men, the incidence of androgenic alopecia is roughly equivalent to chronological age, with half of men experiencing hair loss by age 50.

A number of hormonal changes occur with aging:-

1. Decrease in testosterone
2. Decrease in serum DHT and 5-alpha reductase
3. Decrease 3AAG, a peripheral marker of DHT metabolism
4. Increase in SHBG (Sex Hormone Binding Globulin)
5. Decrease in androgen receptors, 5-alpha reductase type I and II activity, and aromatase in the scalp

The diathesis–stress model is a psychological theory that attempts to explain behavior as predisposition vulnerability together with stress from life experiences. The term diathesis derives from the Greek term for disposition, or vulnerability and it can take the form of genetic, psychological, biological, or situational factors. The diathesis–stress model asserts that if the combination of the predisposition and the stress exceeds a threshold, the person will develop a disorder. Stress can be conceptualized as a life event that disrupts the equilibrium of a person's life. It has been long recognized that stress plays a significant role in understanding how psychopathology develops in individuals.

Supplementing eunuchs with testosterone during their second decade, for example, causes slow progression of androgenic alopecia over many years, while testosterone late in life causes rapid hair loss within a month. An example of premature age effect is Werner's syndrome, a condition of accelerated aging from low-fidelity copying of mRNA. Affected children display premature androgenic alopecia. Werner Syndrome patients exhibit growth retardation, short stature, premature graying of hair, alopecia (hair loss), wrinkling, prematurely aged faces with beaked noses, skin atrophy etc. but in this study above type of individuals are excluded.

3. Metabolic syndrome

(IR- insulin resistance, MS- metabolic syndrome, AGA-androgenic alopecia)

Multiple cross-sectional studies have found associations between early androgenic alopecia, insulin resistance, and metabolic syndrome, with low HDL being the component of metabolic syndrome with highest association. [77] A study in above reference is evaluated 80 patients with early AGA and 48 healthy participants. The serum level of insulin was higher in patients with early AGA compared to the healthy participants, although not significantly. IR was detected in 25 patients with early AGA and in six healthy participants. The difference between the groups was statistically significant. Although 20 patients

with AGA were diagnosed with MS, it was only diagnosed in five healthy participants. The occurrence of MS was significantly higher in the AGA group than in the control group. The results, with the prevalence of IR and MS were observed to have increased in early AGA patients. Hence, patients with early AGA should be followed up for CAD in the long term.

Similar another study in reference of association of androgenic alopecia with metabolic syndrome in men survey was done. [78] A total of 740 subjects aged 40-91 years participated in the survey between April and June 2005. The Norwood classification was used to assess the degree of hair loss. Information on components of metabolic syndrome together with other possible risk factors was collected. Population-based study found a significant association between AGA and metabolic syndrome; among the components of metabolic syndrome, HDL-C was found to be of particular importance. This finding may have significant implications for the identification of metabolic syndrome in patients with moderate or severe AGA. Early intervention for metabolic syndrome is critical to reduce the risk and complications of cardiovascular disease and type 2 diabetes mellitus later in life.

Metabolic syndrome is a disorder of energy utilization and storage, diagnosed by a co-occurrence of three out of five of the following medical conditions which also increases the risk of developing cardiovascular diseases and diabetes:-

1. Abdominal (central) obesity,
2. Elevated blood pressure
3. Elevated fasting plasma glucose
4. High serum triglycerides
5. Low high-density cholesterol (HDL) levels

Essential fatty acids, or EFAs, are fatty acids that humans and other animals must ingest because the body requires them for good health

but cannot synthesize them. The term "essential fatty acid" refers to fatty acids required for biological processes but does not include the fats that only act as fuel. Only two fatty acids are known to be essential for humans:

1. alpha-linolenic acid (an omega-3 fatty acid)
2. linoleic acid (an omega-6 fatty acid)

When the two EFAs were discovered in 1923, they were designated "vitamin F", but in 1929, research on rats showed that the two EFAs are better classified as fats rather than vitamins.

Human or rat microsomal 5 alpha-reductase activity, as measured by enzyme conversion of testosterone into 5 alpha-dihydrotestosterone. is inhibited by low concentrations (less than 10 microM) of certain polyunsaturated fatty acids like linolenic acid linoleic acid.This results suggest that unsaturated fatty acids may play an important role in regulating androgen action in target cells. [79]

According to Davidson the term alopecia *(Khalitya)* means nothing more than loss of hair and is a sign rather than a diagnosis. There are many causes and patterns of alopecia. [80A]

1. Non- scaring
2. Scaring

Non-Scaring [80B]

   i. Tinea capitis
  ii. Alopecia areata
 iii. Androgenetic alopecia
 iv. Traumatic (trichotillomania, traction, cosmetic)
  v. Syphilis
 vi. Androgenetic alopecia
 vii. Telogen effluvium
viii. Metabolic

ix.   Hypothyroidism

x.   Hyperthyroidism

xi.   Hypopituitarism

xii.   Diabetes mellitus

xiii.   HIV disease

xiv.   Nutritional deficiency

xv.   Liver disease

xvi.   Post-partum

xvii.   Alopecia areata

xviii.   Syphilis

Scaring [80C]

i.   Discoid lupus erythematosus

ii.   Radiotherapy

iii.   Folliculitis Decalvans

iv.   Lichen Planus Pilaris

Some types of alopecia related to this study:-

Tinea Captis: - [80D]

Fungal scalp infection is becoming increasingly common in urban areas. The clinical features can be variable but it usually affects children, causing patchy hair loss with some scaling. Any individual who develops an area of hair loss and scaling in the scalp should have the area scraped and affected hair plucked for mycological microscopy and culture. Associated inflammation accounts for the variable presentation. Anthropophilic fungal infections (spread from child to child) account for the majority of cases in urban areas. Endothrix (within the hair shaft) infections, e.g. *Trichophyton tonsurans*, cause relatively uninflamed patchy baldness with breakage of the hair at the skin surface ('black dot').

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness) Hirsutism: -[80E]

Hirsutism is the growth of terminal hair in a male pattern in a female. It should be distinguished from hypertrichosis, which describes the excessive growth of terminal hair in either sex in a non-androgenic distribution. The amount of terminal hair varies in people with different genetic ancestries and therefore the definition of what might be considered excessive needs to take clinical context into account.

Androgenic Alopecia: - [80F]

Male-pattern baldness is physiological in men over 20 years old, (In the above reference and *Samhita* reference we grouped the volunteers starting age from 20 years) although rarely it may be extensive and develop at an alarming pace in the late teens. It also occurs in females, most obviously after the menopause. The well-known distribution (bitemporal recession and then crown involvement) is described as 'male-pattern' but this type of hair loss in females is often diffuse.

References

1. रोमकूपानुगतं वातेन सहमूर्च्छितं । प्रच्यावति रोमाणि तत: श्लेष्मासशोणित: / वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.नि.13/33/322/ सुश्रुत संहिता-डल्हण टीका / वाराणसी/ चौखम्बा सुभारती प्रकाशन/2008/

2. विदेह- खालित्यं पुंसामेव न तु योषिताम् । वैद्य जयदेवजी त्रिकमजी आचार्य/सु.नि. 13/33-34/322/ सुश्रुत संहिता-डल्हण टीका/ वाराणसी / चौखम्बा सुभारती प्रकाशन/2008

3. खालत्य-न० खलतेर्भाव: व्यञ् ।तर्क वाचस्पति श्री तारानाथ तर्कवाचस्पति भट्टाचार्य/ वाचस्पत्यम्/2476/ तृतीय भाग/ चौखम्बा सन्सकृत सीरीज ओफिस वाराणसी/1970/

4. Morbid baldness/ Sir Monier Monier Williams/339/ Sansktit English dictionary/ second edition/Munshiram Manharlal Publication/ 1981/

5. तत्र
अन्नाश्रद्धारोचकाविपाकाङ्गमर्दज्वरहृल्लासतृष्णिगौरवहृत्पाण्डुरोगमार्गोपरोधकार्श्यवैरस्याङ्गसादाकालजवलीपलितदर्शनप्रभृतयो रसदोषजा विकारा: / वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.सू 24/9/116/ सुश्रुत संहिता-डल्हण टीका / वाराणसी/ चौखम्बा सुभारती प्रकाशन/2008/

6. नाशोऽग्रेरयथाकालं वलय: पलितानि च ।
रसप्रदोषजा रोगा,……………………॥/ वैद्य जयदेवजी आचार्य/ च. सू. 28/10/11/179/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका/ वाराणसी/ चौखम्बा सुभारती प्रकाशन/2009/

7. केशा: सीमन्तिनो यस्य संक्षिसे विनते भ्रुवौ॥
लुन्दन्ति चाक्षिपक्ष्माणि सोऽचिराद्याति मृत्यवे /वैद्य जयदेवजी आचार्य/ सु.सू 31/10/139/सुश्रुत संहिता-डल्हण टीका / वाराणसी/चौखम्बा सुभारती प्रकाशन/2008/

8. सप्ततेरूर्ध्वं क्षीयमाणधात्विन्द्रियबलवीर्योत्साहमहन्यहनि वलीपलितखालित्यजुष्टं……..वृद्धमाचक्षते॥/ वैद्य जयदेवजी आचार्य/ सु.सू 35/29/155/ सुश्रुत संहिता-डल्हण टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2008/

9. रसगुणानत ऊर्ध्वं वक्ष्याम:- तत्र मधुरो रसो…………शुक्रस्तन्यवर्धनश्चक्षुष्य: केश्यो वर्ण्यो…..॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.सू 42/ 9/ 185/ सुश्रुत संहिता-डल्हण टीका / वाराणसी/ चौखम्बा सुभारती प्रकाशन/2008/

10. तत्र, मधुरो रस:……………………केश्य: कण्ठ्यो बल्य:………।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू. 26/42/143-144/चरक संहिता-

आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी/ चौखम्बा सुभारती प्रकाशन/ 2009/

11. तिलो विपाके मधुरो बलिष्ठ: स्निग्धो व्रणे लेपन एव पथ्य:।

दन्त्योऽग्निमेधाजननोऽल्पमूत्रस्त्वच्योऽथ केश्योऽनिलहा गुरूश्च ॥ / वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.सू 46/39/217/ सुश्रुत संहिता-डल्हण टीका/ वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

12. केश्यं रसायनं मेध्यं काश्मर्यं फलमुच्यते। / वैद्य जयदेवजी त्रिकमजी आचार्य// सु.सू 46/185/228/ सुश्रुत संहिता-डल्हण टीका/ वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

13. तेषां तु पूर्वरूपाणि-

हस्तपाददाह:.............................मलोत्पत्तिर्जटिलीभाव: केशानां वृद्धिश्च नखानाम् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.नि 6/5/290/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

14. त्रयस्तु खलु दोषा: प्रकुपिता: प्रमेहानभिनिर्वर्तयिष्यन्त इमानि पूर्वरूपाणि दर्शयन्ति; तद्यथा-जटिलीभावं केशेषु, माधुर्यमास्यस्य,............ / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. नि. 4/47/215/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

15. रूणद्धि रोमकूपांस्तु ततोऽन्येषामसंभव: ॥

तदिन्द्रलुप्तं खालित्यं रुज्येति च विभाव्यते॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.नि 13/34/322/ सुश्रुत संहिता-डल्हण टीका / वाराणसी/ चौखम्बा सुभारती प्रकाशन/2008/ सु.नि 13/34/322

16. दारूणा कण्डुरा रूक्षा केशभूमि: प्रपाट्यते॥

कफवातप्रकोपेण विद्याद्दारूणकं तु तम् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य// सु.नि 13/35/322/सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

17. क्रोधशोकश्रमकृत: शरीरोष्मा शिरोगत:॥

पित्तं च केशान् पचति पलितं तेन जायते॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.नि 13/37/322/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

18. अवलेखनात् खलति: / वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा. 2/25/346/ सुश्रुत संहिता-डल्हण टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2008/

19. शङ्खयोरूपरि केशान्त उत्क्षेपौ, तत्र सशल्यो जीवेत् पाकात् पतितशल्यो वा नोद्धृतशल्य:; / वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा.6/27/374/ सुश्रुत संहिता-डल्हण टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2008/

20. शिरोगतांस्तथा रोगाञ्छिरोभ्यङ्गोऽपकर्षति ।

केशानां मार्दवं दैर्घ्यं बहुत्वं स्निग्धकृष्णताम् ॥

करोति शिरसस्तृप्तिं सुत्वक्कमपि चाननम् ।

सन्तर्पणं चेन्द्रियाणां शिरस: प्रतिपूरणम् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.चि. 24/25-26/488/सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

21. पाप्मोपशमनं केशनखरोमापमार्जनम् ।

हर्षलाघवसौभाग्यकरमुत्साहवर्धनम् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.चि. 24/73-74/490/सुश्रुत संहिता-डल्हण टीका / चौखम्बा सुभारती प्रकाशन/2008/

22. केशा भवन्ति भ्रमराञ्जनाभा: ॥

केशास्तथाऽन्ये खलतौ भवेयुर्जरा न चैनं सहसाऽभ्युपैति ॥ / वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.चि. 26/36/496 / सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

23. स्थिरा स्निग्धा लक्षणसंपन्ना: केशाश्च सूक्ष्मा जायन्ते, त्वक च नीलोत्पलातसीपुष्पवैदूर्यप्रकाशा; ऊर्ध्वं च मासात् केशान् वापयेत्,वापयित्वा चोशीरचन्दनकृष्णतिलकल्कै: शिर: प्रदिह्यात् पयसा वा स्नापयेत्; ततोऽस्यानन्तरं सप्तरात्रात् केशा जायन्ते भ्रमराञ्जननिभा:

………। / वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.चि. 29/12/503/ सुश्रुत संहिता-डल्हण टीका/ वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

24. तत्र   स्नेहादीनां   कर्मणां   बस्तिकर्म   प्रधानतममाहुराचार्याः : ।…………….वलीपलितमपहन्ति वयः स्थापयति ।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.चि. 35/3/525/   सुश्रुत संहिता-डल्हण टीका/ वाराणसी / / चौखम्बा सुभारती प्रकाशन/2008/

25. नरो धूमोपयोगाच्च प्रसन्नेन्द्रियवाङ्मनाः ।

दृढकेशद्विजश्मश्रुः सुगन्धिविशदानन ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.चि. 40/15/554/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

26. तत्र यः स्नेहनार्थं शून्यशिरसां ग्रीवास्कन्धोरसां च बलजनननार्थं दृष्टिप्रसादजननार्थं वा स्नेहो विधीयते तस्मिन् वैशेषिको नस्यशब्दः। तत्तु देयं वाताभिभूते शिरसि दन्तकेशश्मश्रुप्रपात…….। वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.चि. 40/22/555/   सुश्रुत संहिता-डल्हण टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2008/

27. नस्येन रोगाः शाम्यन्ति नराणामूर्ध्वजत्रुजाः ।

इन्द्रियाणां च वैमल्यं कुर्यादास्यं सुगन्धि च ॥

हनुदन्तशिरोग्रीवात्रिकबाहूरसां बलम् ।

वलीपलितखालित्यव्यङ्गानां चाप्यसंभवम् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.चि. 40/54-55/557/सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

28. अधृष्यः सर्वभूतानां वलीपलितवर्जितः ।

अस्याभ्यासाद्घृतस्येह जीवेद्वर्षशतत्रयम् ॥ / वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.उ. 39/239-240/689/सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2008/

29. नस्यकर्म यथाकालं यो यथोक्तं निषेवते ॥

न तस्य चक्षुर्न घ्राणं न श्रोत्रमुपहन्यते ।

न स्युः श्वेता न कपिलाः केशाः श्मश्रूणि वा पुनः॥

न च केशा: प्रमुच्यन्ते वर्धन्ते च विशेषत:।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू.5/57-59/41/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

30. नित्यं स्नेहार्द्रिशिरस: शिर:शूलं न जायते ।

न खलित्यं न पालित्यं न केशा: प्रपतन्ति च ॥ / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू.5/81/42/चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका/ वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

31. उष्णस्त्वच्यो हिम: स्पर्श केश्यो बल्यस्तिलो गुरू:।

अल्पमूत्र: कटु: पाके मेधाऽग्निकफपित्तकृत् ॥ /प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ. शा. / 366/23/78/ अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013 /

32. पौष्टिकं वृष्यमायुष्यं शुचि रूपविराजनम्।

केशश्मश्रुनखादीनां कल्पनं संप्रसाधनम् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू. 5/99/43/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

33. केशलोमनखश्मश्रुद्विजप्रपतनं श्रम: ।

ज्ञेयमस्थिक्षये लिङ्गं सन्धिशैथिल्यमेव च ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू. 17/67/103/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

34. A लवणो रस:....................वलिपलितखालित्यमापादयति, अपि च.............../ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू.26/42(3)144/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

34. B ये ह्यतिलवणसात्म्या: पुरूषास्तेषामपि खालित्यपालित्यानि वलयश्चाकाले भवन्ति ।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. वि. 1/18/234/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

34. C लवणनित्या शीघ्रवलीपलितं खालित्यरोगिणं वा, / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 8/21/ 344/ चरक संहिता-आयुर्वेद दीपिका-चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

34. D. सोऽतियुक्तोऽत्रपवनं खलतिं पलितं वलिम् । /प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ. शा. /10/13/145/ अ. हृ./ प्रथम वोल्युम / वाराणसी / चौखम्बा कृष्णदाश प्रकाशन / 2013 /

35. A. अध्यस्थिदन्तौ दन्तास्थिभेदशूलं विवर्णता ।

केशलोमनखश्मश्रुदोषाश्चास्थिप्रदोषजा: ॥ / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू. 28/16/179/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

35. B. अस्थ्न्यस्थितोद: शदनं दन्तकेशनखादिषु । /प्रो. के. आर. श्रीकान्त मूर्ति/ अ. हृ. शा. / 11/19/159 / अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013 /

36. A. क्षार: पुनरौष्ण्यतैक्ष्ण्यलाघवोपपन्न: क्लेदयत्यादौ पश्चाद्विशोषयति, स पचनदहनभेदनार्थमुपयुज्यते; सोऽतिप्रयुज्यमान: केशाक्षिहृदयपुंस्त्वोपघातकर: संपद्यते। ये ह्येनं ग्रामनगरनिगमजनपदा: सततमुपयुञ्जते त आन्ध्यषाण्ढ्यखालित्यपालित्यभाजो हृदयापकर्तिनश्च भवन्ति, तद्यथा प्राच्याश्चीनाश्च; तस्मात् क्षारं नात्युपयुञ्जीत। / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. वि.1/17/234/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

36. B. क्षार: सर्वश्च परमं तीक्ष्णोष्ण: कृमिजिल्लघु: ।

पित्तासृग्दूषण: पाकौ छेद्यहृद्यो विदारण: ॥

अपथ्य: कटुलावण्याच्छुक्रौज: केशचक्षुषाम् । /प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ. शा. /6/151-152/104/अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013 /

37. शोणितजानां तु खलु कुष्ठै: समानं समुत्थानं;......................प्रभाव: केशश्मश्रुनखलोमपक्ष्मापध्वंस: व्रणगतानां च.........॥/वैद्य जयदेवजी त्रिकमजी आचार्य/ च. वि.7/11/258/चरक संहिता-आयुर्वेद दीपिका-चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

38. तत्र स्निग्धश्लक्ष्णमृदुप्रसन्नसूक्ष्माल्पगम्भीरसुकुमारलोमा सप्रभेव च त्वक् त्वक्साराणाम् । वैद्य जयदेवजी त्रिकमजी आचार्य/ च. वि.8/103/278/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

39. वर्णस्वरनेत्रकेशलोमनखदन्तौष्ठमूत्रपुरीषेषु विशेषत; स्नेहो मेद:साराणाम् । / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. वि.8/106/278/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

40. अनिर्देश्यमत: परं तर्क्यमेव । तद्यथा-
..................एकोनत्रिंशत्सहस्राणि नव च शतानि षट्पञ्चाशत्कानि सिराधमनीनामणुश: प्रविभज्यमानानां मुखाग्रपरिमाणं, तावन्ति चैव केशश्मश्रुलोमानीति।।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. शा. 7/14/338/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

41. ज्वर: क्षीणस्य शूनस्य गम्भीरो दैर्घरात्रिक: ॥
 असाध्यो बलवान् यश्च केशसीमन्तकज्वर: ।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. चि. 3/52/403/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

42. कासं श्लेष्मामयांश्वोग्रान् सर्वानेवापकर्षति ।
 वलीपलितखालित्यं दोषजं च व्यपोहति ॥ इति कनकारिष्ट: ।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. चि.14/168/508/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

43. किट्टमन्नस्य विण्मूत्रं, रसस्य तु कफोऽसृज:।
पित्तं, मांसस्य खमला, मल: स्वेदस्तु मेदस: ॥
स्यात्किट्टं केशलोमास्थ्नो, मज्ज: स्नेहोऽक्षिविट् त्वचाम् ।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. चि.15/18-19/515/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

44. केशच्युति: शिरोरूग्ग्रन्थयश्च सविषेऽथ शिरोऽभ्यङ्गे ।/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. चि. 23/116/576/ चरक संहिता-आयुर्वेद दीपिका-चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

45. खालित्ये पलिते वल्यां हरिलोम्नि च शोधितम् ।

नस्यैस्तैलै: शिरोवक्त्रप्रलेपैश्चाप्युपाचरेत् ॥/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. चि.26/262-263/611/ चरक संहिता-आयुर्वेद दीपिका-चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

46. नस्यं स्यादणुतैलं वा खालित्यपलितापहम् । / वैद्य जयदेवजी त्रिकमजी आचार्य/ च. चि.26/264/611/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी / चौखम्बा सुभारती प्रकाशन/2009/

47. उष्णाम्बुनाऽध: कायस्य परिषेको बलावह: ।

तेनैव तूत्तमाङ्गस्य बलहृत्केशचक्षुषाम् ॥ / प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ./सु./2/17/26/अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013/

48. आर्द्रं स्वादु हिमं केश्यं गुरू पित्तानिलापहम् । / प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ./सु. /5/60/67 अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013/

49. लशुनो भृशतीक्ष्णोष्ण: कटुपाकरस: सर: ॥

हृद्य: केश्यो गुरूर्वृष्य: स्निग्धो रोचनदीपन: । / प्रो. के. आर. श्रीकान्त मूर्ति/ अ. हृ./सु./6/109-110/95 / अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013/

50. शम्या गुरूष्णं केशघ्नं रूक्षम् पीलु तु पित्तलम् । / प्रो. के. आर. श्रीकान्त मूर्ति /अ. हृ./सु. /6/130/100/ अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013/

51. ....स तु हन्ति सुयोजित:।

अकालपलितव्यङ्गवलीतिमिरनीलिका:॥ / प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ./सु. /22/18/274/ अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013/

52. केशरोमनिरभ्यङ्गं यस्याभ्यक्तभिवेक्ष्यते ।

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

यस्यात्यर्थं चले नेत्रे स्तब्धान्तर्गतनिर्गते ॥ / प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ./शा./5/6/434/ अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013/

53. कृष्णा पापाननाचारा दीर्घकेशनखस्तनी । / प्रो. के. आर. श्रीकान्त मूर्ति/ अ. हृ./शा./6/58/465 / अ. हृ./ प्रथम वोल्युम / वाराणसी /चौखम्बा कृष्णदाश प्रकाशन / 2013/

54. Dr.Robert L. Rosenfield /"Molecular genetics and endocrine mechanisms of hair growth"/ International Journal of Experimental and Clinical Endocrinology/1–13/Vol. 60, No. 1, Year 2003/

55. Stárka L, Cermáková I, Dusková M, Hill M, Dolezal M, Polácek V./Hormonal Profile of Men with Premature Balding/ 112(1)/Experimental and Clinical Endocrinology & Diabetes/03February 2004/

56. Luis A. Garza, Chao-Chun Yang, Tailun Zhao, Hanz B. Blatt, Michelle Lee, Helen He, David C. Stanton, Lee Carrasco, Jeffrey H. Spiegel, John W. Tobias, and George Cotsarelis / Bald scalp in men with androgenetic alopecia retains hair follicle stem cells but lacks CD200-rich and CD34-positive hair follicle progenitor cells/ The Journal of Clinical Investigation/ Published online 2011/

57. Ben Amitai D, Lurie R, Laron Z / Igf-I signalling controls the hair growth cycle and the differentiation of hair shafts/125/873–882/ Journal of Investigative Dermatology" Oct-2005 /

58. R. A. S. Hemat / Principles of Orthomolecularism/P-428 /ISBN 1903737052, 9781903737057/2004/

59. Johan K Amory / The Effect of 5α-Reductase Inhibition With Dutasteride and Finasteride on Bone Mineral Density, Serum Lipoproteins, Hemoglobin, Prostate Specific Antigen and Sexual Function in Healthy Young Men/ The Journal Of Urology/ Volume 179/ Issue 6/ Pages 2333–2338/ June 2008/

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

60. Male Pattern Baldness Causes/ WebMD Medical Reference from the American Hair Loss Association/ Published on March 1, 2010

61. Shigeki Inui and Satoshi Itami / Androgen actions on the human hair follicle: perspectives/ Experimental Dermatology/ pages 168–171/ Volume 22/ Issue 3/ March 2013/

62. Shigeki Inui and Satoshi Itami / Androgen actions on the human hair follicle: Perspectives/ Pages-168-171 / Experimental Dermatology/ Volume 22/ issue 3/ March 2013/

63. Alejandro Godoy / 5α-reductase type 3 expression in human benign and malignant tissues: A comparative analysis during prostate cancer progression/ Pages-1033-1046/The Prostate/ Volume-71/Issue-10/ July 2011/

64. Faris Azzouni, Alejandro Godoy, Yun Li / the 5 Alpha-Reductase Isozyme Family: A Review of Basic Biology and Their Role in Human Diseases/ Advance in Urology/ Published 25 Dec 2011/PMCID- PMCID- PMC3253436/

65. Roberto C, Agis Balboa / Characterization of brain neurons that express enzymes mediating neuro steroid biosynthesis/ Volume-103 no. 39/ PNAS/ 26 September 2006/

66. Shigeki Inui and Satoshi Itami / Androgen actions on the human hair follicle: / Pages-168-171 / Experimental Dermatology/ Volume 22/ issue 3/ March 2013/

67. Platz, E. A.; Pollak, M. N.; Willett / Vertex balding, plasma insulin-like growth factor 1, and insulin-like growth factor binding protein 3/ Pages 1003–1007/Journal of the American Academy of Dermatology/ Volume 42, Issue 6/ June 2000/

68. Zhao, J. Harada, N. Okajima / Dihydrotestosterone inhibits hair growth in mice by inhibiting insulin-like growth factor-I production in dermal papillae/ Pages 260-261/Growth Hormone & IGF Research/ Volume 21/ Issue 5/ October 2011/

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

69. Batch, J. A. Mercuri, F. A. Werther, / Identification and localization of insulin-like growth factor-binding protein (IGFBP) messenger RNAs in human hair follicle dermal papilla"/ The Journal of investigative dermatology 106 (3): 471–475. PMID8648179

70. Zhao, J.; Harada, N. Okajima, / Dihydrotestosterone inhibits hair growth in mice by inhibiting insulin-like growth factor-I production in dermal papillae"/ Growth Hormone & IGF Research 21 (5): 260–267/PMID 21839661/2011/

71. Inui, S.; Itami, S. "Androgen actions on the human hair follicle: Perspectives" /Experimental Dermatology/ 22 (3): 168–71. PMID23016593 /2012/

72. Stárka, L. Cermáková, I. Dusková, M. Hill, M. Dolezal, M. Polácek,"Hormonal Profile of Men with Premature Balding" Journal. (Theime) Experimental and Clinical Endocrinology & Diabetes 112 (1) 24–28. / PMID 14758568/2004/

73. W. Lesko, S. M. Conaway, M. R. Robertson, C. N. Clark, R. V. Lobaugh, B. Mathias, B. J. Strigo, T. S.; Paulson / Serum androgens: associations with prostate cancer risk and hair patterning / Demark-Wahnefried / Journal of andrology 18 (5): 495–500. PMID 9349747/ (1997)

74. Ramot, Y. / V. Griffiths, Mind the (Gender) Gap: Does Prolactin Exert Gender and/or Site-Specific Effects on the Human Hair Follicle/886–891/ the Journal of Investigative Dermatology 130 (3) /PMID19890346/2009/

75. Foitzik, K. Krause / Human Scalp Hair Follicles Are Both a Target and a Source of Prolactin, which Serves as an Autocrine and/or Paracrine Promoter of Apoptosis-Driven Hair Follicle Regression/ American Journal of Pathology 168 (3): 748–756/ PMC 1606541 2006/

j) 10 Chapter 7 Review of Literature *Khalitya* (Baldness)

76. Steinhoff, M. Rochlitz / Reduced growth of beard as the only diagnostic sign in a patient with macroprolactinoma / Journal of the European Academy of Dermatology and Venereology 21 (1) 124–126/2006/

77. Acibucu, F. Kayatas, M. Candan/ The association of insulin resistance and metabolic syndrome in early androgenetic alopecia. / Singapore medical journal/931–936/ 51 (12)2010/

78. Su, L. H. Chen / Association of androgenetic alopecia with metabolic syndrome in men: A community-based survey /371–377/ British Journal of Dermatology 163 (2)/2010/

79. Liang, T.; Liao, S. (1992) / Inhibition of steroid 5 alpha-reductase by specific aliphatic unsaturated fatty acids /557–562 / The Biochemical journal/ 285 (Pt 2) /1992/

80. A, B, C, D, E, F- Alopecia/Davidson's principles and Practice of Medicine/ 20th Ed. /Chaptor-27- Skin diseases/1278/-1279

k) 11 Chapter 8 Material and Methods

Ayurveda is an eternal science with absolute principles for life but due to changes in weather and life style the percentage of illness is growing. In *Ayurveda* text, for complete success in treatment is specially described clearly the concept of *Prakriti* for this purpose there are given some characteristic features like *Khalitya* which is very important character to determine the appropriate body constitution for both goals of ayurveda Like- *Ch.Vi.*8/16&97,*Su.Sha.*4/68-71 &72-76. *A.Hr.Sha.*3/103 Regrettably there is not yet analyzed systematic detail for an examination of *Khalitya* from particular angle of *Prakriti* so this point is usually neglected. In above interest *Khalitya* in the reference of *Prakriti* is to establish scientific niche on Hamilton scale to satisfy the scientific community and stakeholders. Hamilton scale is the scale which examines grade of baldness.

Ayurveda is explained pithily in *ayurvedic Samhitas*. In the reference of *Prakriti* characteristic features are stated like in *Pitta Prakriti* *'khalityadoshaha' (Ch.Vi.8/97)* but there is not mentioned the procedure to identify the features scientifically that at which grade limit of baldness we can say that it is that proper position of *Khalitya*, in this state it is very typical to say that who is affected this special character and who does not while pithily it is asked to doctor to determine according to his mind and there is not a well established scientific and statistically approved theory which can satisfy the scientific community. In present scientific modern era it is important to establish every concept with statistic. There is a scientific scale to examine the baldness as Hamilton baldness scale on which *ayurvedic* theory of effecting from baldness can be proved.

Aim

To assess the *Khalitya* on modern scientific scale parameters in different *Deha Prakriti*.

k) 11 Chapter 8 Material and Methods

<u>Objective</u>

To define grade of baldness in different *Deha Prakriti*.

<u>Literary</u> <u>View</u>

An effort is made to collect and compile all available literature and information of the *Prakriti* and Hamilton baldness scale.

<u>Methodology</u>

Study Centre-----------**TILAK MAHARASTRA VIDYAPEETH**

Study site---------------**Gujarat**

Sample Size-------------**240** (There is not available study of prevalence of baldness in above particular region so sample size is preferred to assess the results as per statics.

Groups-------------------**Two groups A & B**

Sampling Technique---Simple Random Sampling Technique

Statistical Analysis-----------Parametric & non parametric tests whichever required

Samples are divided in two groups, according to age criteria to observe actual effect of *Doshas* on *Prakriti* for *Khalitya* in relation to early and late changes in baldness. In this study it was to observe that age factor is also responsible or not for hair loss. So the groups were formed according to average life expectancy in India according to Union ministry of health and family welfare of India that is 69.6 (in round figure 70 years) respectively in 2011-2015 mentioned on the website of Union ministry of health and family welfare of India and published in the times of India also. [1] In continuation this regard *Aacharya Charaka* abbreviated in the end of age investigation that according to age characteristic features the

individuals should examined in related three categories of Life span. [2] Keeping in mind above average life expectancy with mean the groups were divided. Volunteers running between 20 to 34 years are considered as in **A** group while running between 35 to 50 years are considered as in **B** group. Below than 20 are not include due to childhood and above than 50 are excluded due to old age.

Experimental Design

First of all observation and identification of baldness is done with the help of Hamilton Norwood Scale in the volunteers after that according to questionnaire *Prakriti* is decided of the same volunteers. The questionnaire, which is prepared for the assessment of *Prakriti* based on distinctiveness described in standard textbooks of *Ayurveda* (Questionnaire is attached in appendix page no…….). *Deha Prakriti* is designated in seven type of *Prakriti.* In present study according to questionnaire symptoms of a *Dosha* having 66% & above are considered as *Ekadosaja Prakriti* on the basis of previous studies.

I.   **Inclusion Criteria**
   o   Male baldness
   o   Healthy persons

II.   **Exclusion Criteria:**
   o   Females
   o   Known chronic diseased persons

Flow Chart of Experimental Study Design No.1

EXPERIMENTAL STUDY DESIGN
Observation & Identification of Baldness by Hamilton Norwood Scale

k) 11 Chapter 8 Material and Methods

Assessment of Deha Prakriti

(Groups according to age)

Group=A   Group=B

(20-34 Years)   (35-50 years)

Comparison of Baldness grade according to different *Deha Prakriti*

Statistically Analysis (Parametric & non parametric tests whichever required)
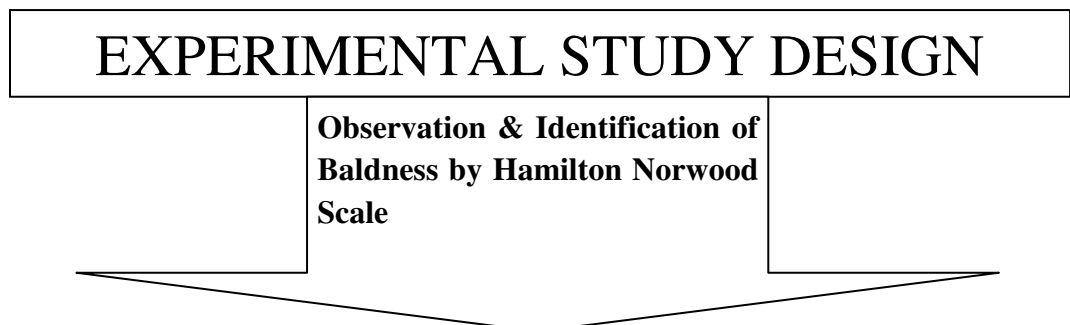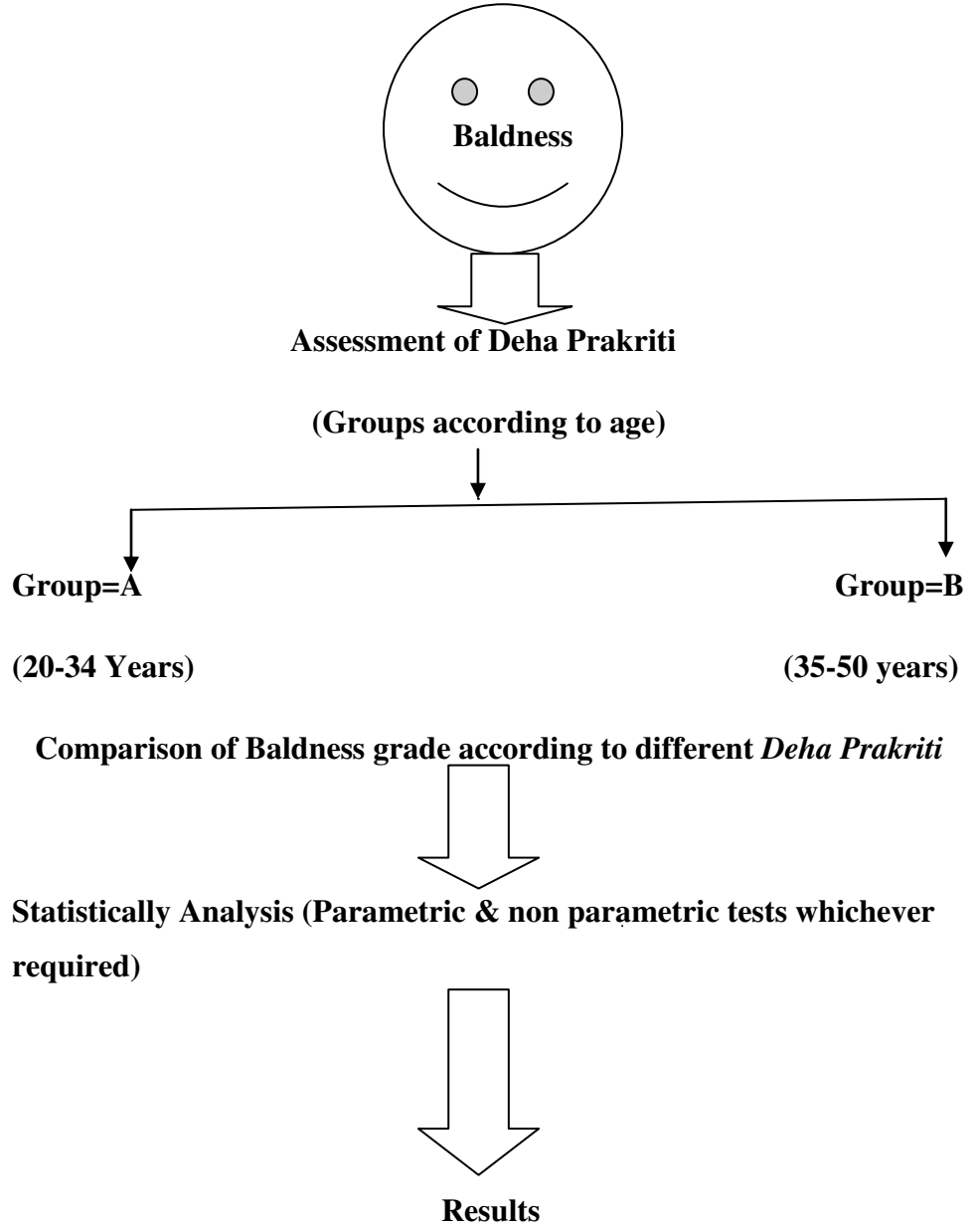
Results

References

1. The Times Of India 29th January2014
2. …….आयुषो लक्षणतश्च प्रमाणमुपलभ्य वयसस्त्रित्वं विभजेत् ॥ सत्यनारायण शास्त्री/ च. वि. 8/122/782/वाराणसी/ चौखम्बा भारती अकादमी/2008

l) 12 Chapter 9 Observations and results

Diet Graph No. 01
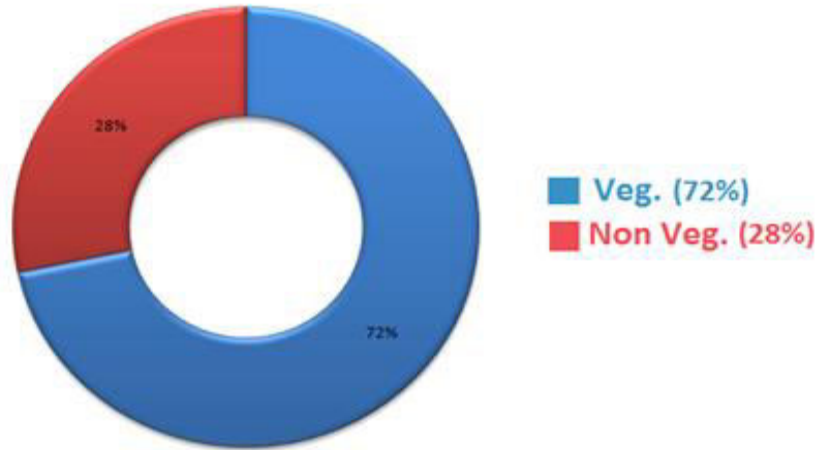
Diet Table No. 01

Sr. No.	Diet	Volunteers	Percentage
1	Vegetarian	172	72
2	Non vegetarian	68	28
3	Total	240	100%

Results:

Graph 01 as well as Table 01 shows that, out of 240 volunteers have diet vegetarian with 72% and rest have diet non-vegetarian with 28%.

l) 12 Chapter 9 Observations and results

Occupation Graph No. 02
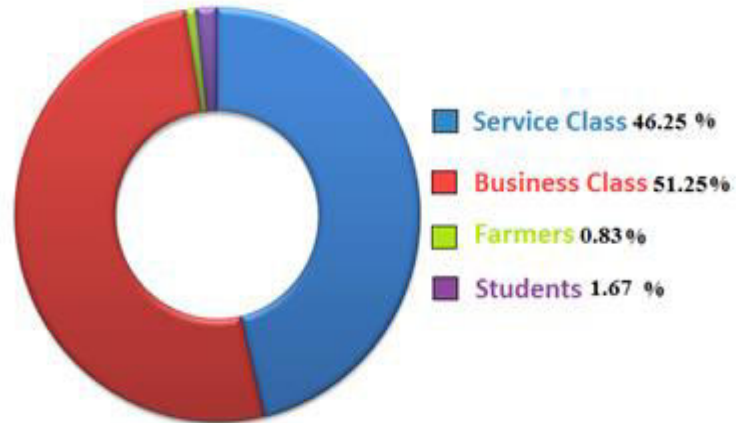
Occupation Table No. 02

Sr. No	Occupation	Volunteers	Percentage
1.	Service Class	111	46.25%
2.	Business Class	123	51.25%
3.	Farmers	2	0.83%
4.	Students	4	1.67%
		240	100%

Results:

From Graph 02 and table 02 we see that there are four class of volunteers namely Service Class, Bussiness Class, Farmers and Students. Out of 240 volunteers we have 46.25% of Service Class, 51.25% of Bussiness Class, 0.83% of Farmers and 1.67% of Students. There are more volunteers from Bussiness class and less from Farmers.

l) 12 Chapter 9 Observations and results

Educational Level Graph No. 03
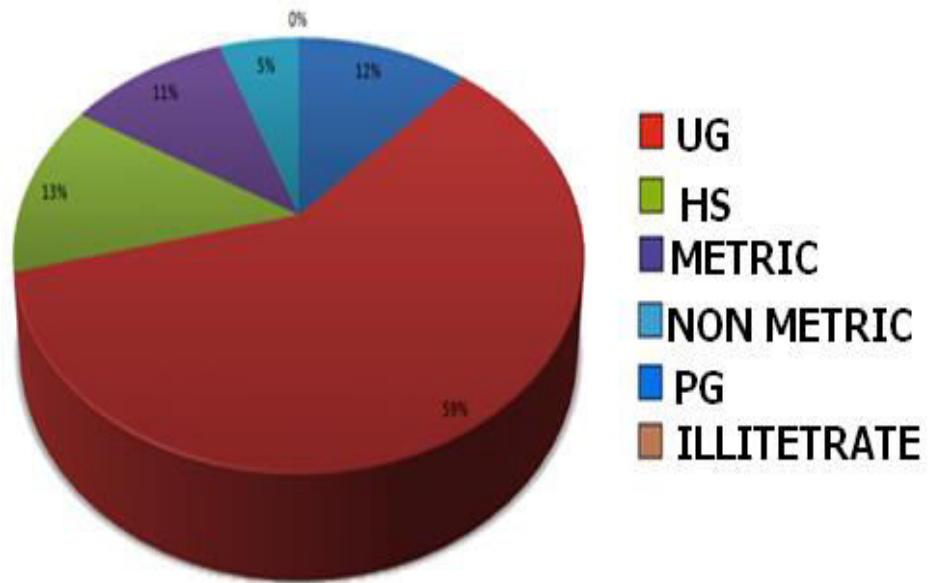
Educational Level Table No. 03

Sr. No.	Education	Volunteers	Percentage
1.	PG	28	12%
2.	UG	142	59%
3.	HS	31	13%
4.	Metric	26	11%
5.	Non metric	13	5%
6.	Illiterate	0	0
Total		240	100%

Results:

From Graph 03 and Table 03 we see that we have six class of education of volunteers namely PG, UG, HS, Metric, Non Metric and illiterate. Percentage of volunteers having education level are shown in the table 03 and we can see that there are more percentage of UG level volunteers are there in our study and there is no single volunteer of illiterate education level.

l) 12 Chapter 9 Observations and results

Vata Prakriti (Mean) Graph No. 04
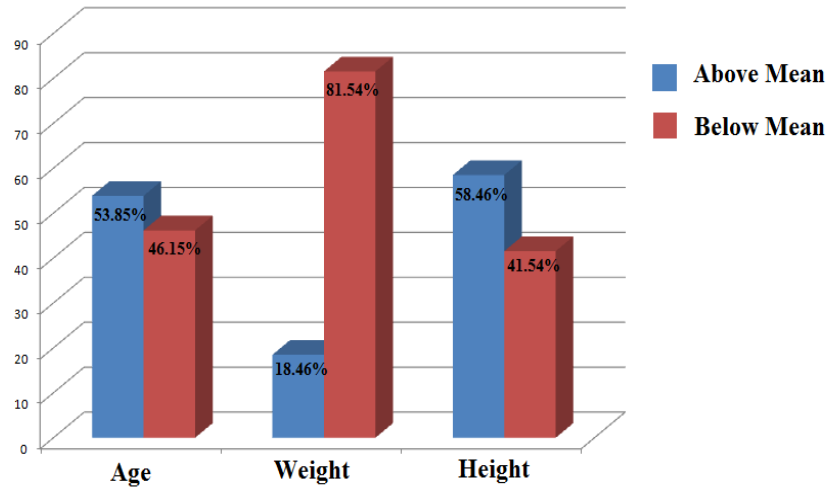
Mean Chart of Vata Prakriti

Vata Prakriti (Mean) Table No. 04

Sr. No.	Observations	Mean	Above Mean	Below Mean
1	Age	43.37 Years	53.85%	46.15%
2	Weight	72.29 Kg	18.46%	81.54%
3	Height	170.85 Cm	58.46%	41.54%

Result:

Graph 04 and table 04 is of *Vata Prakriti* shows percentage of volunteers are above mean and below mean of Age, Weight and Height in *Vata Prakriti* from total 65 volunteers. There are 53.85% are above mean and 46.15% are below mean in age of 65 volunteers of *Vata Prakriti*. For Weight 18.46% are above mean and 81.54% are below mean and for height 58.46% are above mean and 41.54% are below mean of 65 volunteers of *Vata Prakriti*.

l) 12 Chapter 9 Observations and results

Pitta Prakriti (Mean) Graph No. 05
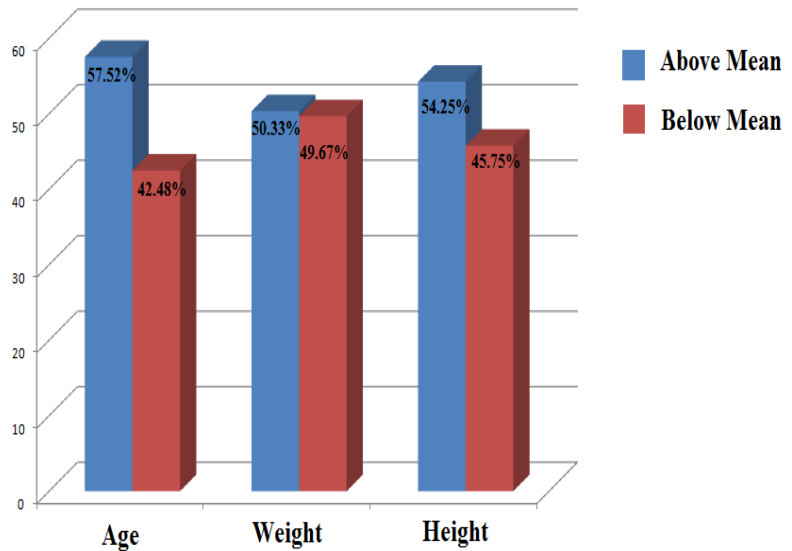
Mean Chart of Pitta Prakriti

Pitta Prakriti (Mean) Table No. 05

Sr. No.	Observations	Mean	Above Mean	Below Mean
1	Age	43.31 Years	57.52%	42.48%
2	Weight	72.28 Kg	50.33%	49.67%
3	Height	170.49 Cm	54.25%	45.75%

Result:

Graph 05 and table 05 is of *Pitta Prakriti* shows percentage of volunteers are above mean and below mean of Age, Weight and Height in *Pitta Prakriti* from total 153 volunteers. There are 57.52% are above mean and 42.48% are below mean in age of 153 volunteers of *Pitta Prakriti*. For weight 50.33% are above mean and 49.67% are below mean and for height 54.25% are above mean and 45.75% are below mean of 153 volunteers of *Pitta Prakriti*.

l) 12 Chapter 9 Observations and results

Kapha Prakriti (Mean) Graph No. 06
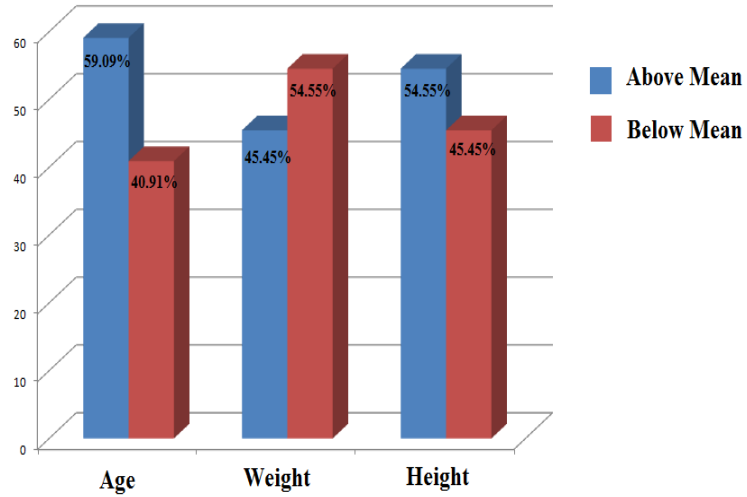
Mean Chart of Kapha Prakriti

Kapha Prakriti (Mean) Table No. 06

Sr. No.	Observations	Mean	Above Mean	Below Mean
1	Age	43.45. Years	59.09%	40.91%
2	Weight	76.27 Kg	45.45%	54.55%
3	Height	171.23 Cm	54.55%	45.45%

Result:

Graph 06 and table 06 is of _Kapha Prakriti_ shows percentage of volunteers are above mean and below mean of Age, Weight and Height in _Kapha Prakriti_ from total 22 volunteers. There are 59.09% are above mean and 40.91% are below mean in age of 22 volunteers of _Kapha Prakriti_. For weight 45.45% are above mean and 54.55% are below mean and for height 54.55% are above mean and 45.45% are below mean of 22 volunteers of _Kapha Prakriti_.

l) 12 Chapter 9 Observations and results

Parameters In _Vata Prakriti_ Graph No. 07
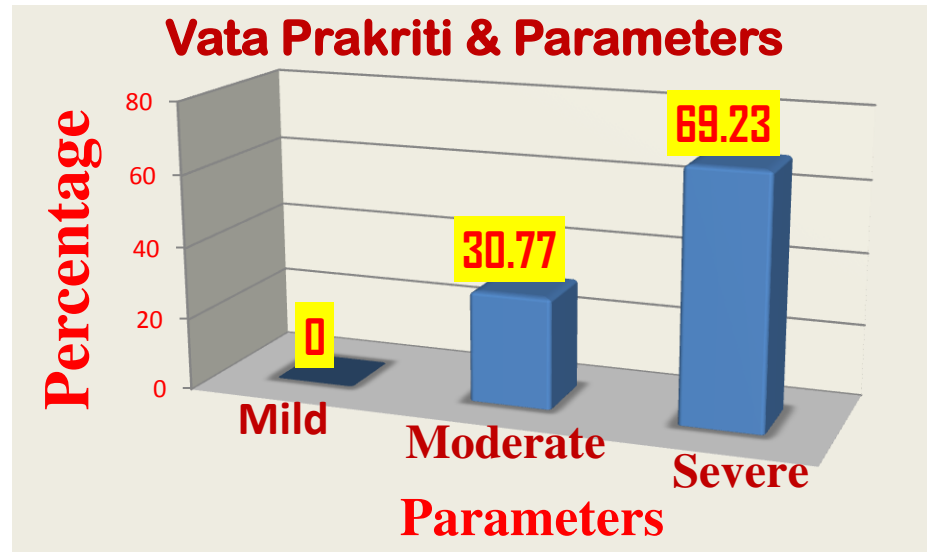
Parameters In _Vata Prakriti_ Table No. 07

Sr. No.	Parameters	No. Of Volunteers	Percent
1	Mild	00	0%
2	Moderate	20	30.77%
3	Severe	45	69.23%
	Total	65	100%

Result:

Graph 07 and table 07 represent the level of parameter of hair loss of _Vata Prakriti_. There are 0% of volunteers with mild level, 30.77% of volunteers with Moderate level and 69.23% with severe level of _Vata Prakriti_ (out of 65 volunteers).

l) 12 Chapter 9 Observations and results

Parameters In *Pitta Prakriti* Graph No. 08
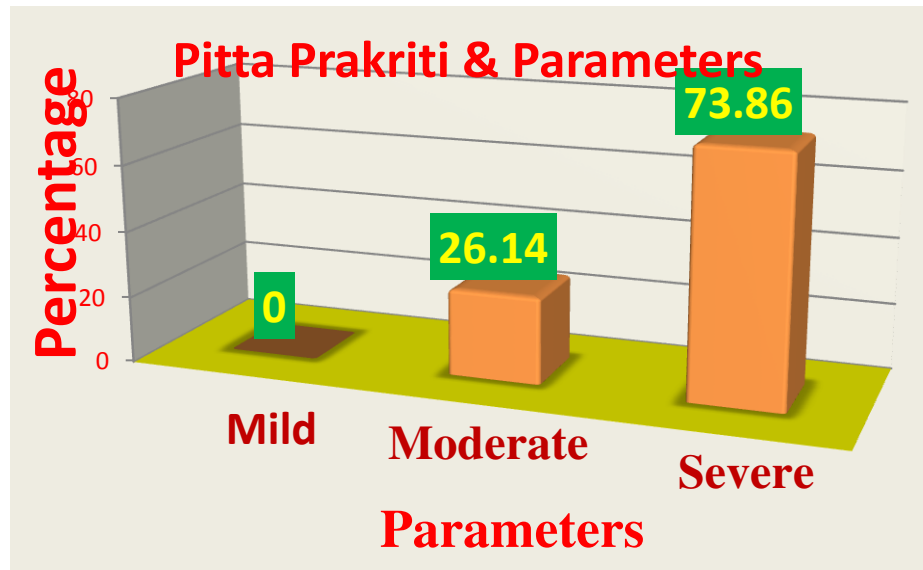
Parameters In *Pitta Prakriti* Table No. 08

Sr. No.	Parameters	No. Of Volunteers	Percent
1	Mild	00	0%
2	Moderate	40	26.14%
3	Severe	113	73.86%
	Total	153	100%

Result:

Graph 08 and table 08 represent the level of parameter of hair loss of *Pitta Prakriti*. There are 0% of volunteers with mild level, 26.14% of volunteers with moderate level and 73.86% with severe level of *Pitta Prakriti* (out of 153 volunteers).

Parameters In *Kapha Prakriti* Graph No. 09
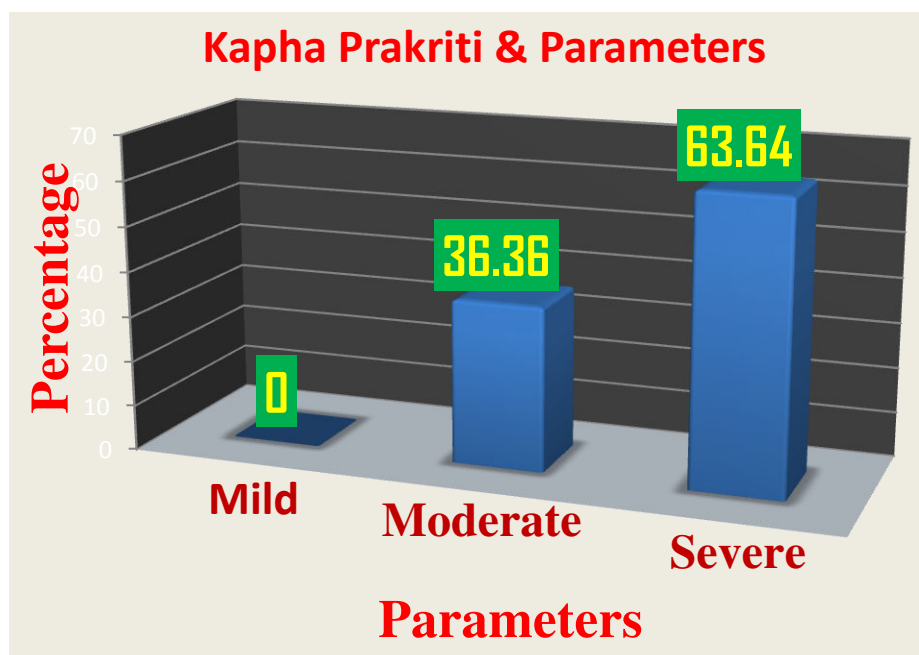
Parameters In *Kapha Prakriti* Table No. 09

Sr. No.	Parameters	No. Of Volunteers	Percent
1	Mild	00	0%
2	Moderate	8	36.36%
3	Severe	14	63.64%
	Total	22	100 %

Result:

Graph 09 and table 09 represent the level of parameter of hair loss of *Kapha Prakriti*. There are 0% of volunteers with mild level, 36.36% of volunteers with moderate level and 63.64% with severe level of *Kapha Prakriti* (out of 22 volunteers).

l) 12 Chapter 9 Observations and results

Norwood Type Stages In _Vata Prakriti_ Graph No. 10
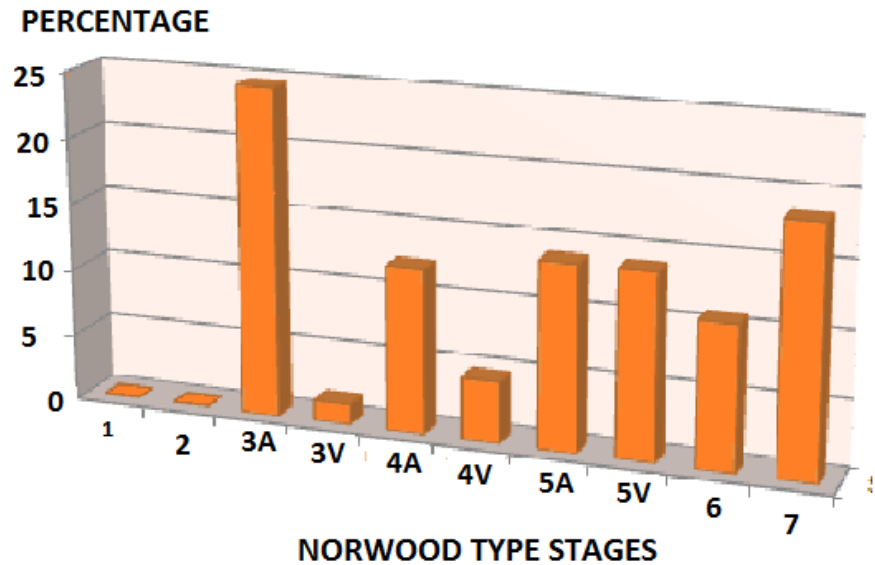
Norwood Type Stages In _Vata Prakriti_ Table No. 10

Norwood Type Stage	1	2	3A	3V	4A	4V
Percentage	0	0	**24.62**	1.54	12.3	4.62
Norwood Type Stage	5A	5V	6	7		
Percentage	13.85	13.85	10.77	18.46		

Result:

Graph 10 and table 10 shows the percentage of Norwood type stages in _Vata Prakriti_. There are total 10 different types of Norwood stages. We did not find any volunteer having Norwood type stage 1 and 2 in _Vata Prakriti._ We show that maximum number of volunteers (24.62%) have Norwood type stage 3A in _Vata Prakriti_ out of 65 volunteers.

Norwood Type Stages In *Pitta Prakriti* Graph No. 11
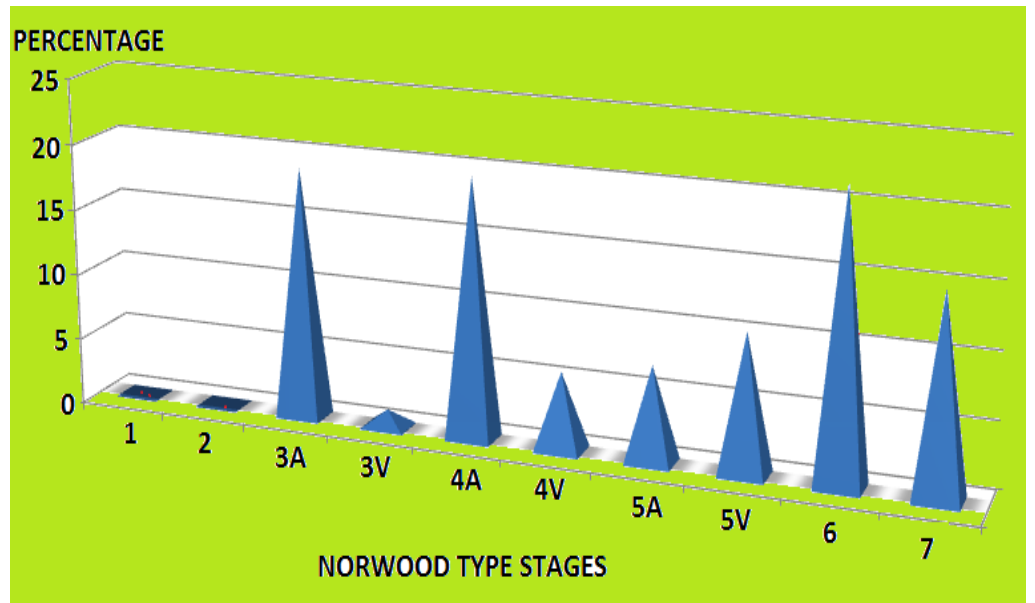
Norwood Type Stages In *Pitta Prakriti* Table No. 11

Norwood Type Stage	1	2	3A	3V	4A	4V	5A
Percentage	0	0	18.95	1.3	19.61	5.88	7.19
Norwood Type Stage	5V	6	7				
Percentage	10.46	**21.57**	15.03				

Result:

Graph 11 and table 11 shows the percentage of Norwood stages in *Pitta Prakriti*. There are total 10 different types of Norwood stages. We did not find any volunteer having Norwood type stage 1 and 2 in *Pitta Prakriti*. We show that maximum number of volunteers (21.57%) have Norwood type stage 6 in *Pitta Prakriti* out of 153 volunteers.

l) 12 Chapter 9 Observations and results

Norwood Type Stages In *Kapha Prakriti* Graph No. 12
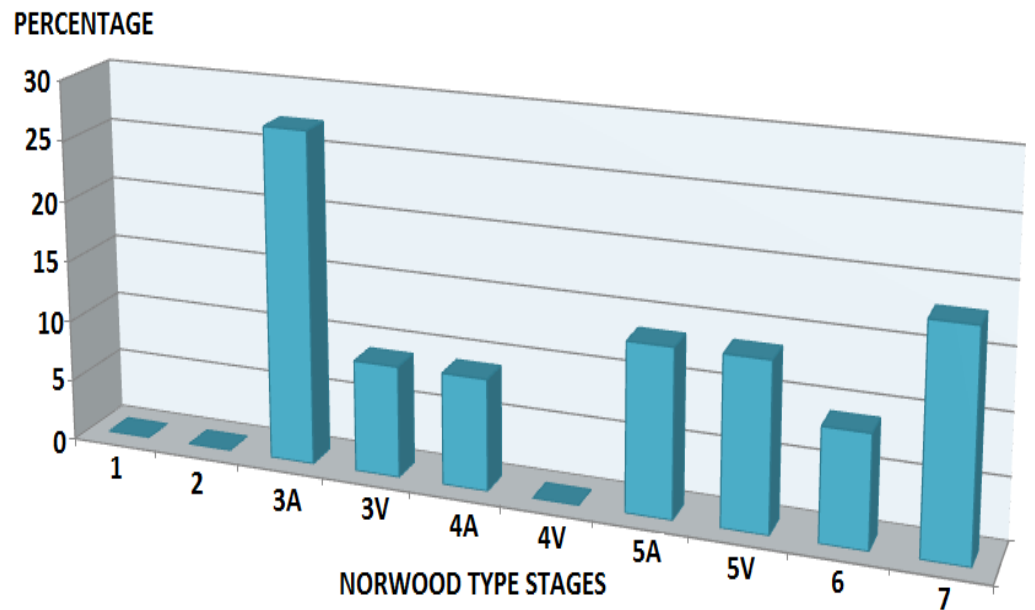
PERCENTAGE

Norwood Type Stages In *Kapha Prakriti* Table No. 12

Norwood Type Stage	1	2	3A	3V	4A	4V
Percentage	0	0	**27.27**	9.09	9.09	00
Norwood Type Stage	5A	5V	6	7		
Percentage	13.64	13.64	9.09	18.17		

Result:

Graph 12 and table 12 shows the percentage of Norwood stage in *Kapha Prakriti*. There are total 10 different types of Norwood stages. We did not find any volunteer having Norwood type stage 1, 2 and 4V in *Kapha Prakriti*. We show that maximum number of volunteers (27.27%) have Norwood stage 3A in *Kapha Prakriti* out of 22 volunteers.

142

l) 12 Chapter 9 Observations and results

Age Mean Graph of group A No. 13
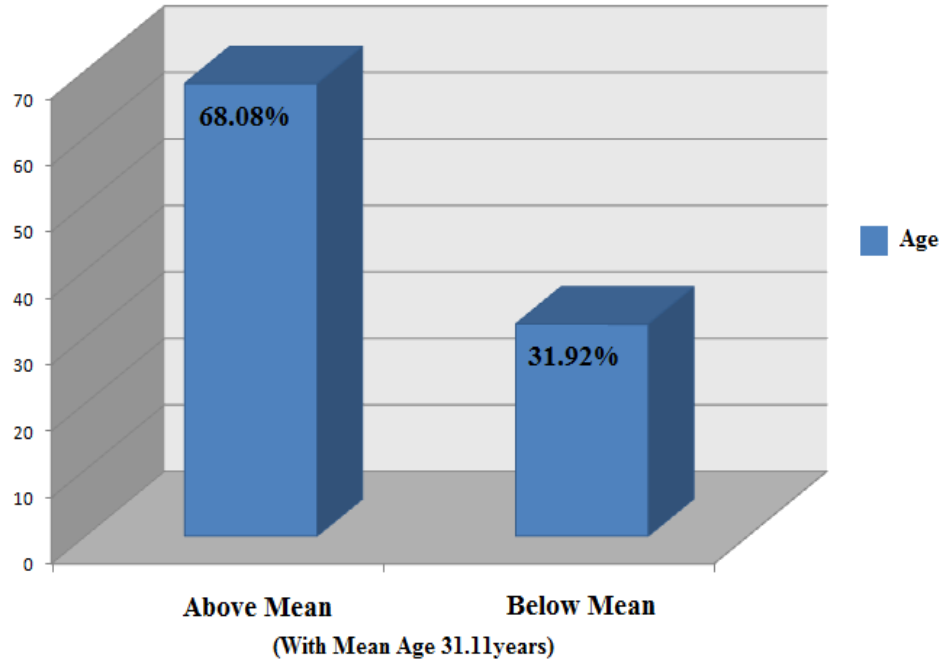
Age Mean Chart (Group-A)

Age Mean Table of Group A No. 13

Sr. No.	Above/Below Mean	No. Of Volunteers	Percentage
1.	Above Mean	32	68.08%
2.	Below Mean	15	31.92%
Total		47	100%

Result:

Graph 13 and table 13 shows the percentage of volunteers are above mean age and below mean age (with mean age 31.11years) of group A (represent age from 20-34). There are 68.08% volunteers above mean age and 31.92% volunteers are below mean age of group A.

l) 12 Chapter 9 Observations and results

Age Mean Graph of Group B No. 14

Age Mean Chart (Group-B)
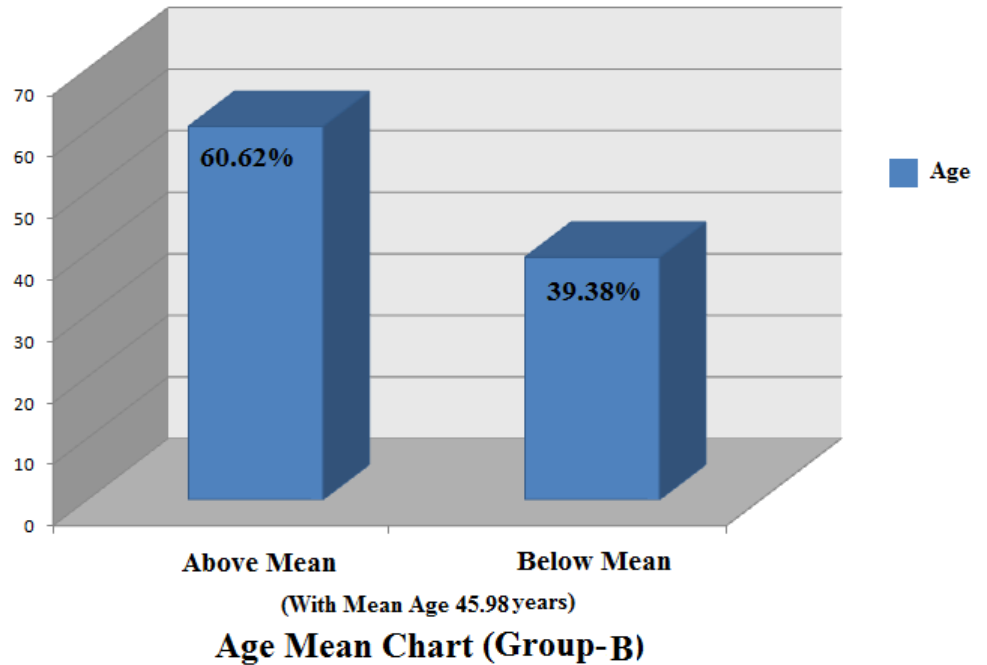
Age Mean Table of Group B No. 14

Sr. No.	Above/Below Mean	No. Of Volunteers	Percentage
1.	Above Mean	117	60.62%
2.	Below Mean	76	39.38%
Total		193	100%

Result:

Graph 14 and table 14 shows the percentage of volunteers are above mean age and below mean age (with mean age 45.98 years) of Group B (represent Age from 35-50). There are 60.62% volunteers above mean age and 39.38% volunteers are below mean age of group B.

l) 12 Chapter 9 Observations and results

Deit Graph of Group A No. 15
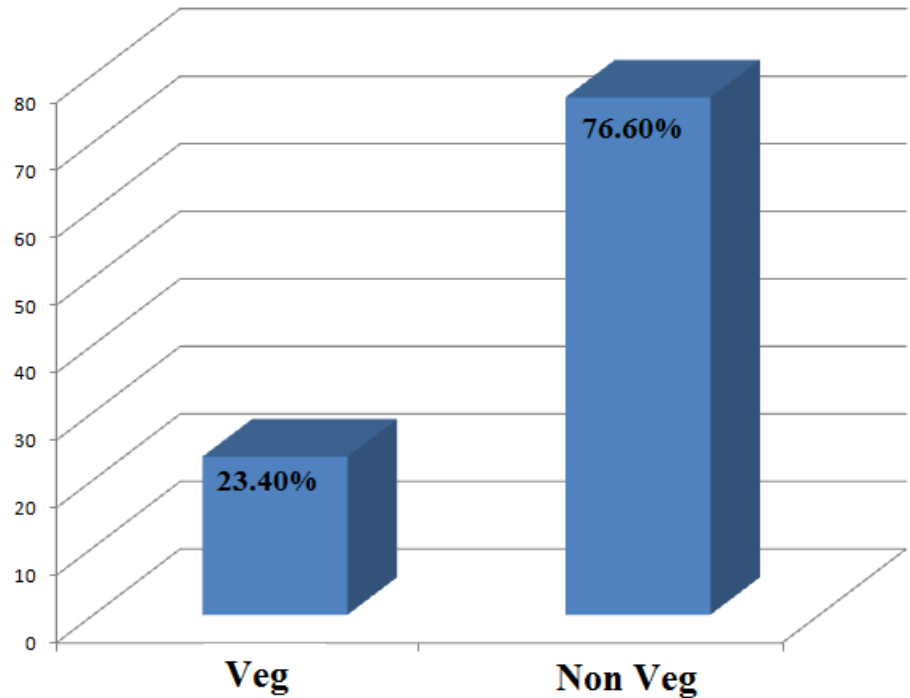
Diet Chart of Group A

Deit Table of Group A No. 15

Sr. No.	Diet	No. Of Volunteers	Percentage
1.	Veg	11	23.40%
2.	Nonveg	36	76.60%
Total		47	100%

Result:

Graph 15 and table 15 shows the percentage of diet of volunteers of group A (represent Age from 20-34). There are 23.4% volunteers having diet vegetarian and 76.6% volunteers have diet non-vegetarian in group A.

l) 12 Chapter 9 Observations and results

Deit Graph of Group B No. 16
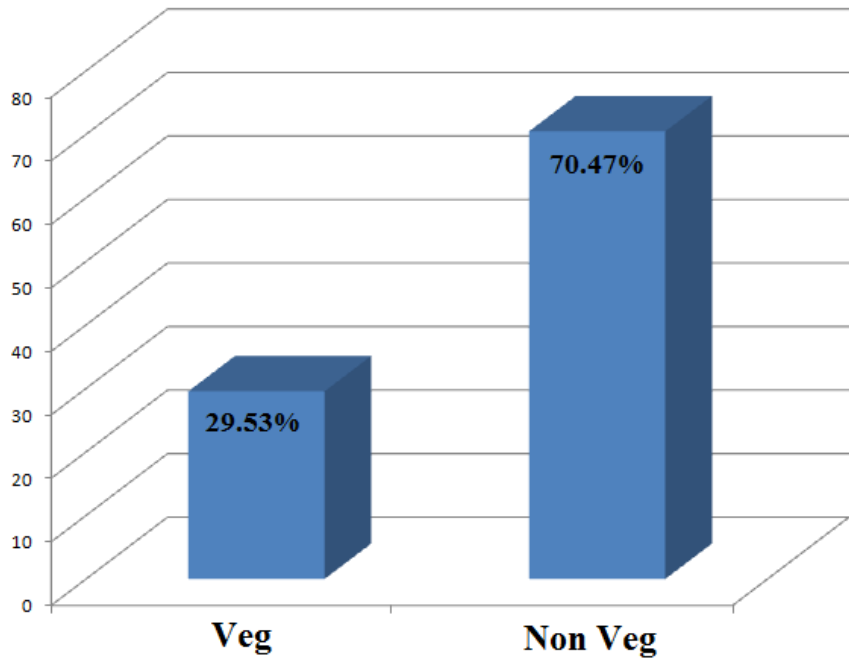
Diet Chart of Group B

Deit Table of Group B No. 16

Sr. No.	Diet	No. Of Volunteers	Percentage
1.	Vegetarian	57	29.53%
2.	Non vegetarian	136	70.47%
Total		193	100%

Result:

Graph 16 and table 16 shows the percentage of diet of volunteers of group B (represent Age from 35-50). There are 29.53% volunteers having diet vegetarian and 70.47% volunteers have diet non-vegetarian in group B.

l) 12 Chapter 9 Observations and results

Education Graph of Group A No. 17
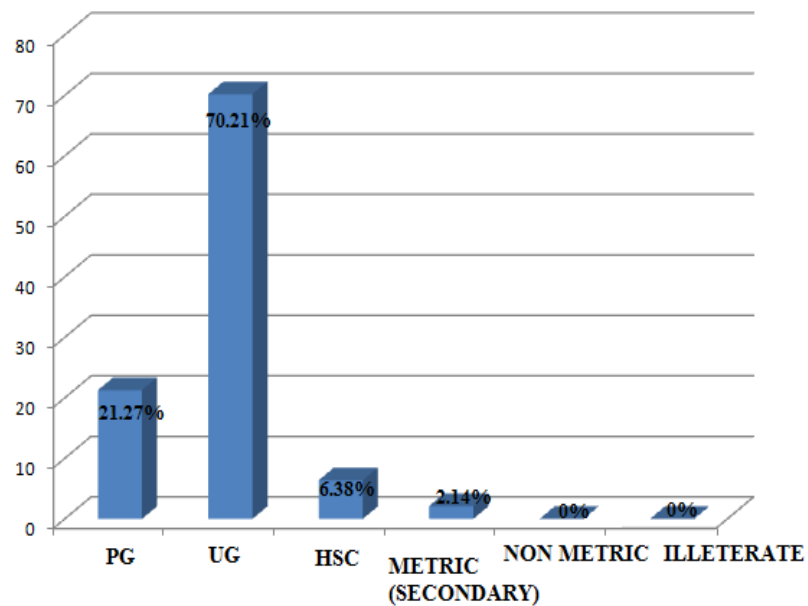
Education Level of Group A

Education Table of Group A No. 17

Sr. No.	Education	No. of volunteers	Percentages
1	PG	10	21.27
2	UG	33	70.21
3	HSC	3	6.38
4	Metric	1	2.14
5	Non Metric	00	00
6	Illiterate	00	00
Total		47	100%

Result:

Graph 17 and table 17 shows the percentage of education level of volunteers of group A (represent Age from 20-34). There are maximum (70.21%) volunteers having education level UG and minimum (2.14%) volunteers having education level metric in group A. But there is no any volunteers having education level Non-metric and illiterate.

l) 12 Chapter 9 Observations and results

Education Graph of Group B No. 18
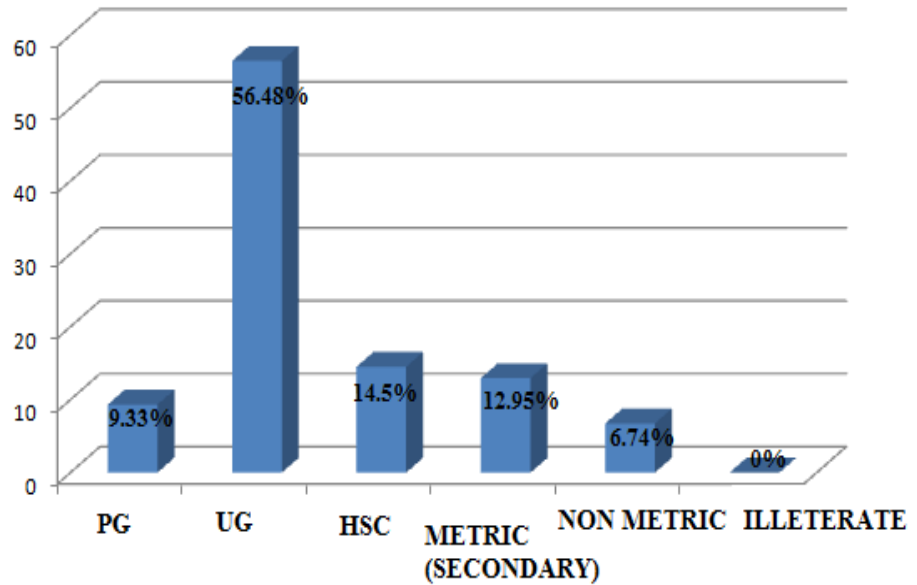
Education Level of Group B

Education Table of Group B No. 18

Sr. No.	Education	No. of volunteers	Percentages
1	PG	18	9.33
2	UG	109	56.48
3	HSC	28	14.5
4	Metric	25	12.95
5	Non Metric	13	6.74
6	Illiterate	00	00
Total		193	100%

Result:

Graph 18 and table 18 shows the percentage of education level of volunteers of group B (represent age from 35-50). There are maximum (56.48%) volunteers having education level UG and minimum (6.74%) volunteers having education level Non-metric in group B. But there is no any volunteers having education level illiterate.

l) 12 Chapter 9 Observations and results

Height Mean Graph of Group A No. 19

74.47%

25.53%

Height

80
70
60
50
40
30
20
10
0

Above Mean   **Below Mean**

(With Mean Height 169.81cm)
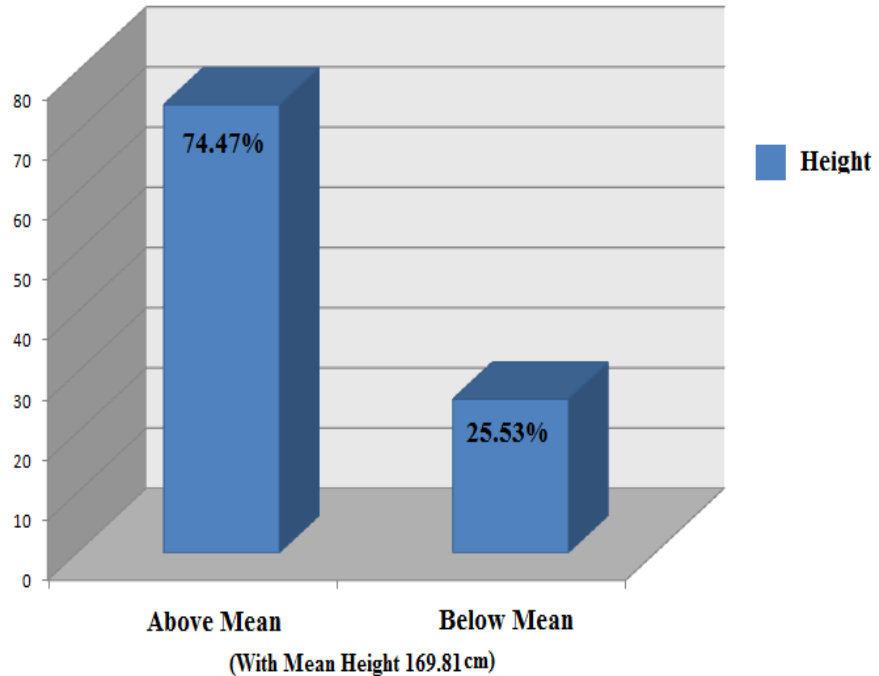
Height Mean Chart (Group-A)

Height Mean Table of Group A No. 19

Sr. No.	Height	No. Of Volunteers	Percentage
1.	Above mean	35	74.47%
2.	Below mean	12	25.53%
Total		47	100%

Result:

Graph 19 and table 19 shows the percentage of volunteers are above mean height and below mean height (with mean height 169.81cm) of group A (represent age from 20-34). There are 74.47% volunteers above mean height and 25.53% volunteers are below mean height in group A.

149

l) 12 Chapter 9 Observations and results

Height Mean Graph of Group B No. 20
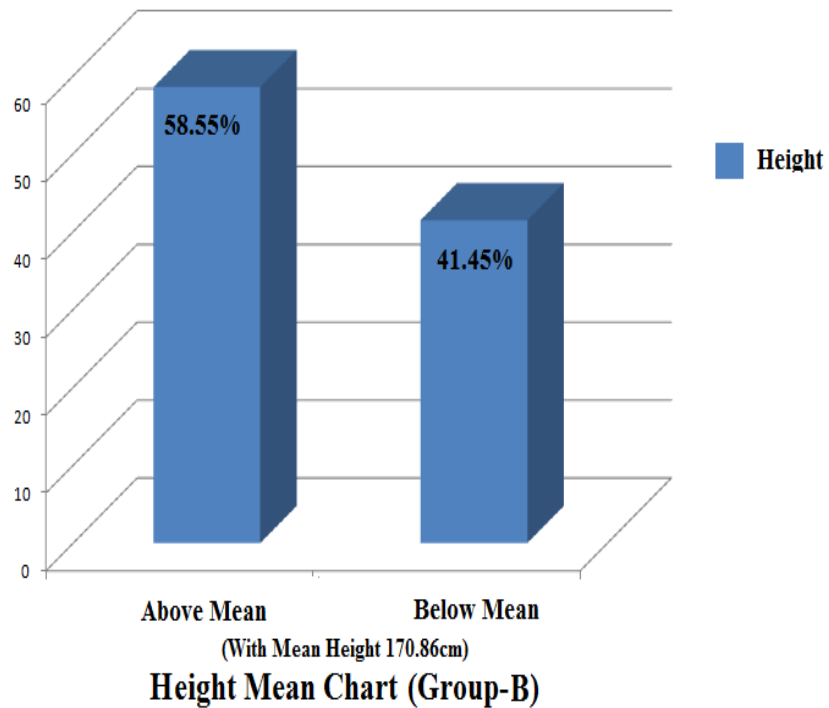
Height Mean Table of Group B No. 20

Sr. No.	Height	No. Of Volunteers	Percentage
1.	Above mean	113	58.55%
2.	Below mean	80	41.45%
Total		193	100%

Result:

Graph 20 and table 20 shows the percentage of volunteers are above mean height and below mean height (with mean Height 170.86cm) of group B (represent Age from 35-50). There are 58.55% volunteers above mean height and 41.45% volunteers are below mean height in group B.

l) 12 Chapter 9 Observations and results

Norwood Type Stages Graph of Group A No. 21
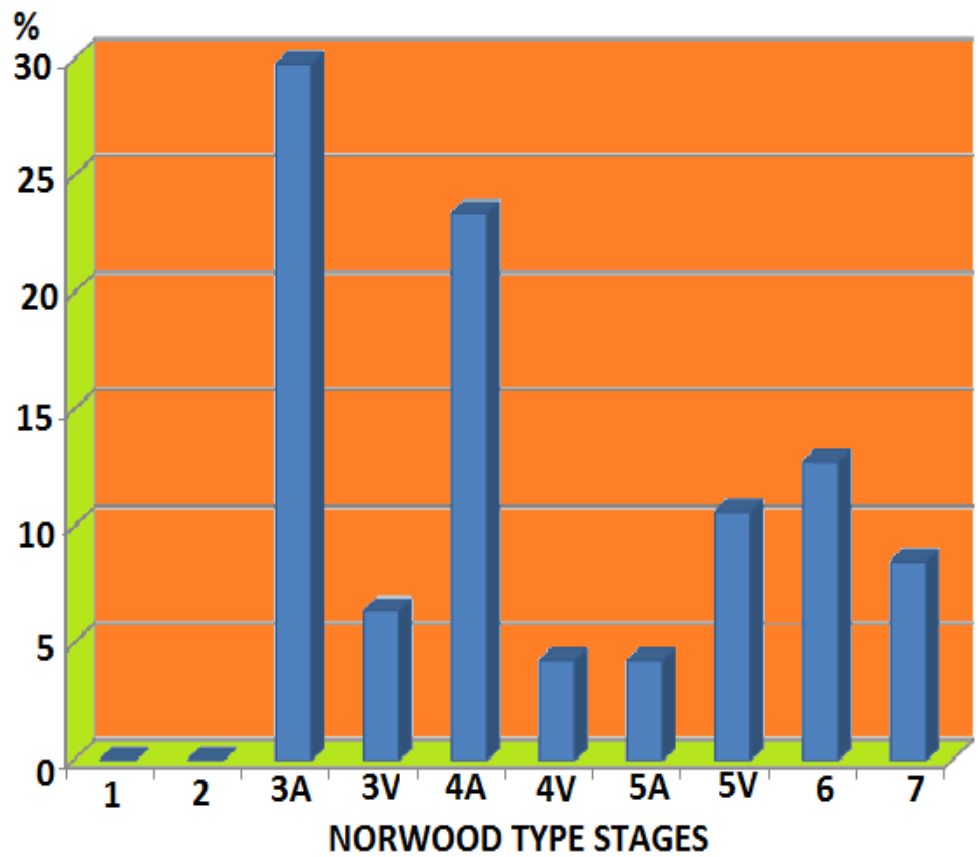
Norwood Type Stages Table of Group A No. 21

Sr. No.	Norwood Type Stage	No. of volunteers	Percentages
1	1	0	0
2	2	0	0
3	3A	14	**30**
4	3V	3	6.38
5	4A	11	23.40
6	4V	2	4.25
7	5A	2	4.25
8	5V	5	10.63
9	6	6	12.77
10	7	4	8.51
	Total	47	100

l) 12 Chapter 9 Observations and results

<u>Result:</u>

Graph 21 and Table 21 represent different types of Norwood stages in group A (represent age from 20-34). There are 10 different Norwood type stages. We did not find any volunteer having Norwood type stage 1and 2 in Group A. We show that maximum (30%) number of volunteers has Norwood type stage 3A.

l) 12 Chapter 9 Observations and results

Norwood Type Stages Graph of Group B No. 22
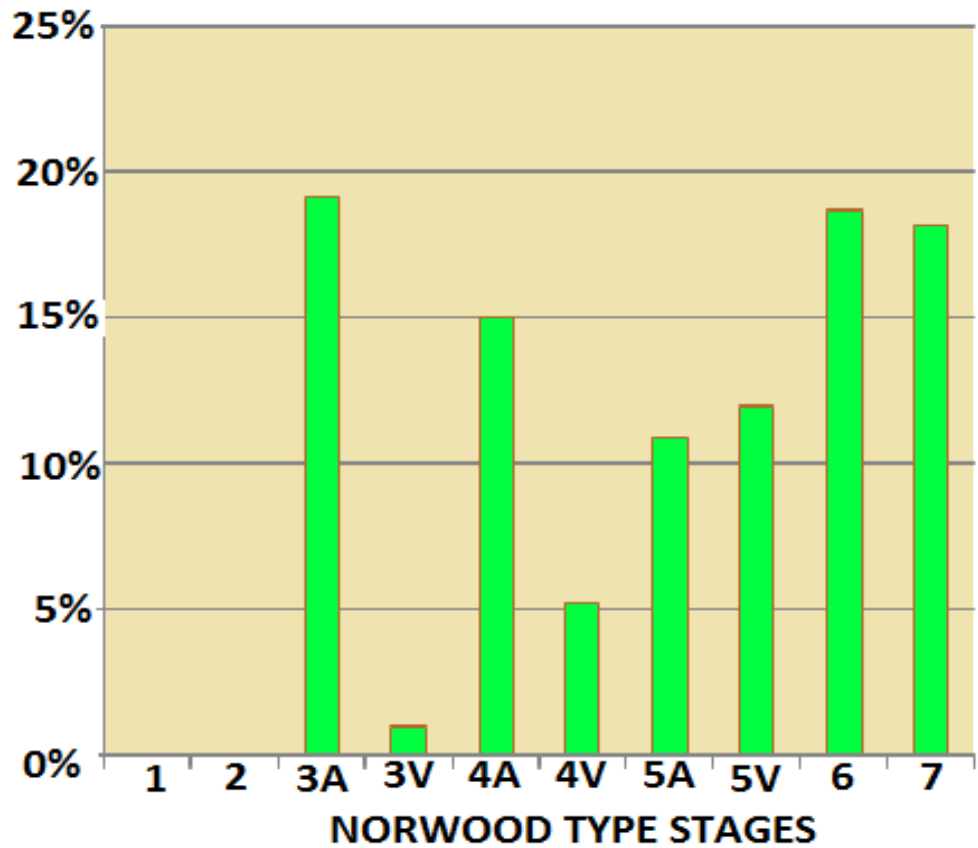
Norwood Type Stages Table of Group B No. 22

Sr. No.	Norwood Type Stage	No. of volunteers	Percentages
1	1	0	0
2	2	0	0
3	3A	37	**19.17**
4	3V	2	1.03
5	4A	29	15.03
6	4V	10	5.18
7	5A	21	10.88
8	5V	23	11.92
9	6	36	18.65
10	7	35	18.14
	Total	193	100 %

l) 12 Chapter 9 Observations and results

<u>Result:</u>

Graph 22 and Table 22 represent different types of Norwood stages in group B (represent age from 35-50). There are 10 different Norwood type stages. We did not find any volunteer having Norwood type stage 1 and 2 in group B. We show that maximum (19.17%) number of volunteers has Norwood type stage 3A.

l) 12 Chapter 9 Observations and results

Occupation Graph of Group A No. 23
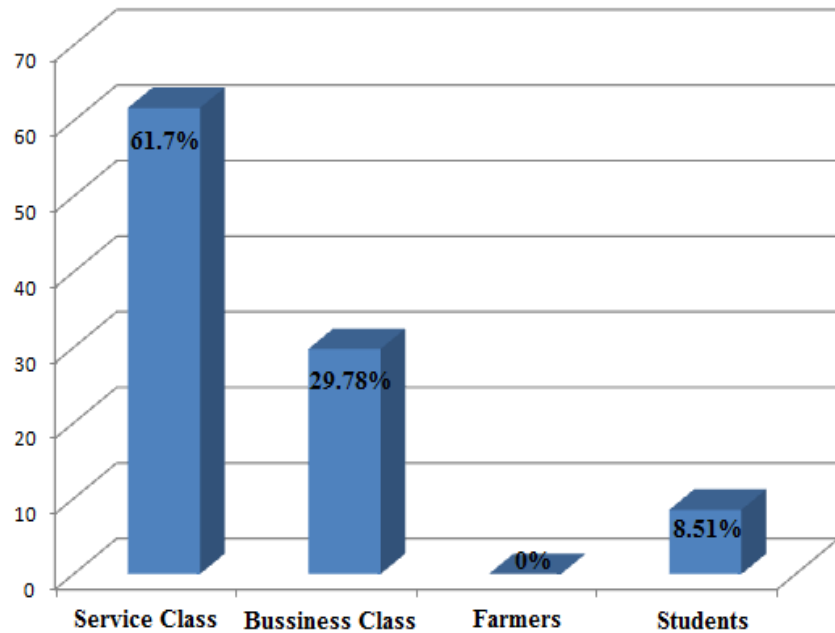
Occupation Chart of Group A

Occupation Table of Group A No. 23

Sr. No.	Occupation	No. Of Volunteers	Percentage
1.	Service Class	29	61.7
2.	Business Class	14	29.78
3.	Framers	00	0
4.	Students	4	8.51
Total		47	100 %

Result:

Graph 23 and Table 23 represent different types of occupation in group A (represent age from 20-34). There are 04 different occupation namely service class, business class, farmers and students. We not found any volunteer who is farmer in group A. And we show that maximum (61.7%) number of volunteers from service class and minimum (8.51%) number of volunteers from student class in group A.

l) 12 Chapter 9 Observations and results

Occupation Graph of Group B No. 24
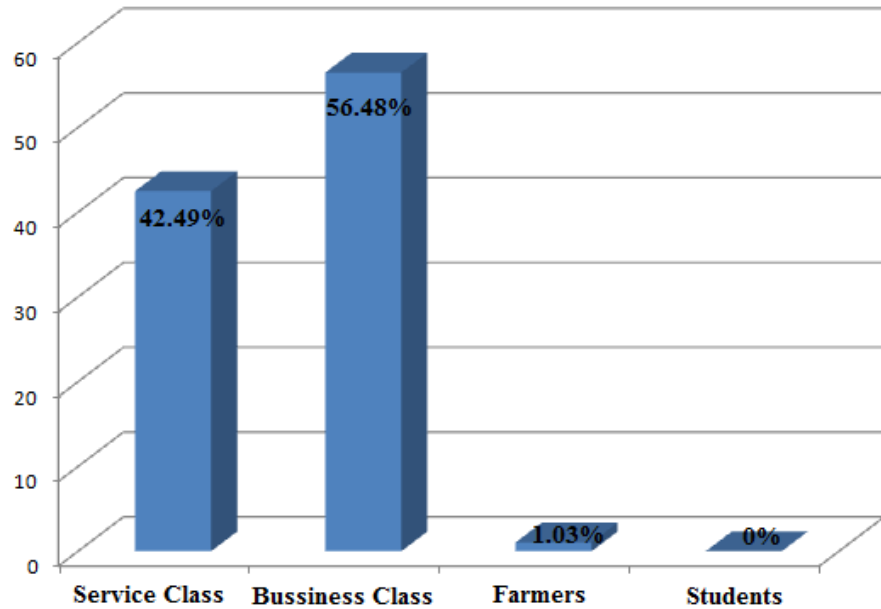
Occupation Chart of Group B

Occupation Table of Group B No. 24

Sr. No.	Occupation	No. Of Volunteers	Percentage
1.	Service Class	82	42.49
2.	Business Class	109	56.48
3.	Framers	2	1.03
4.	Students	0	00
Total		193	100 %

Result:

Graph 24 and Table 24 represent different types of occupation in group B (represent Age from 35-50). There are 04 different occupation namely service class, business class, farmers and students. We not found any volunteer from student class in group B. And we show that maximum (56.48%) number of volunteers from business class and minimum (1.03%) number of volunteers from farmers in group B.

l) 12 Chapter 9 Observations and results

Parameters of Hair Loss Graph of Group A No. 25
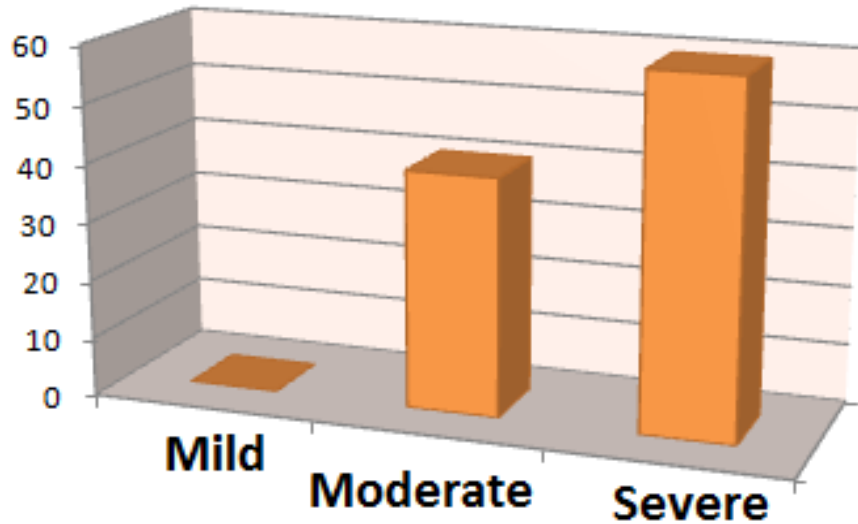
Parameters of Hair Loss Table of Group A No. 25

Sr. No.	Parameter	No. Of Volunteers	Percentage
1.	Moderate	19	40.43%
2.	Severe	28	59.57%
Total		47	100 %

Result:

Graph 25 and Table 25 represent the percentage of level of parameter of hair loss of group A (represent age from 20-34) volunteers. There are 40.43% volunteers having moderate level and 59.57% volunteers having severe level in group A.

l) 12 Chapter 9 Observations and results

Parameters of Hair Loss Graph of Group B No. 26
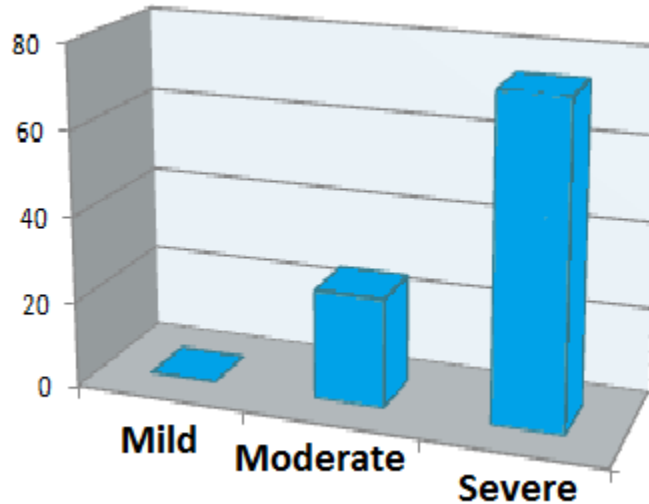
Parameters of Hair Loss Table of Group B No. 26

Sr. No.	Parameter	No. Of Volunteers	Percentage
1.	Moderate	49	25.39%
2.	Severe	144	74.61%
Total		193	100%

Result:

Graph 26 and Table 26 represent the percentage of level of parameter of hair loss of group B (represent age from 35-50) volunteers. There are 25.39% volunteers having moderate level and 74.61% volunteers having severe level in group B.

l) 12 Chapter 9 Observations and results

Weight Mean Graph of Group A No. 27
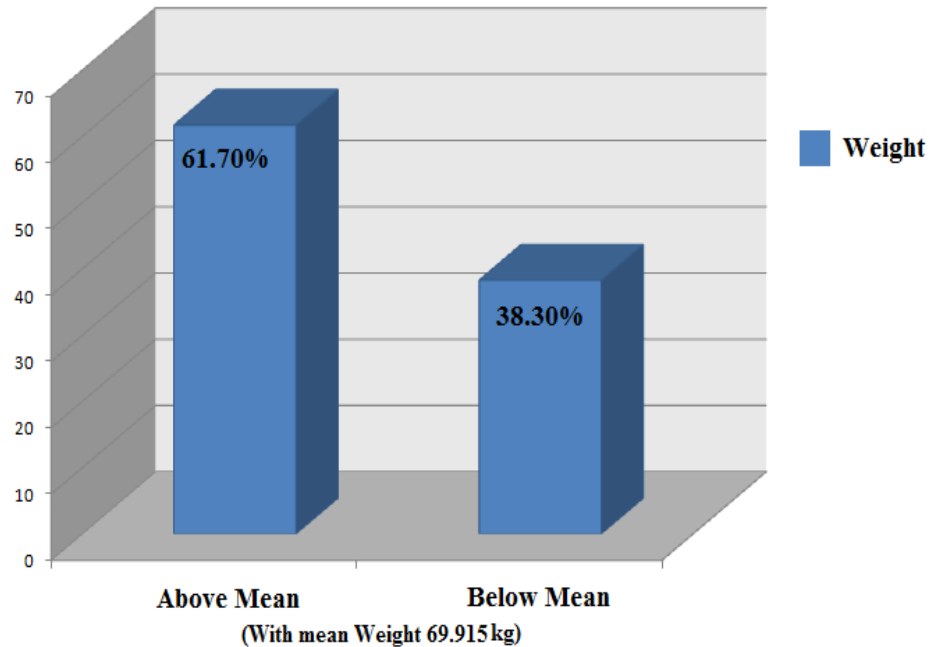
Weight Mean Chart (Group-A)

Weight Mean Table of Group A No. 27

Sr. No.	Weight	No. Of Volunteers	Percentage
1.	Above mean	29	61.70
2.	Below mean	18	38.30
Total		47	100%

Result:

Graph 27 and table 27 shows the percentage of volunteers are above mean weight and below mean weight (with mean weight 69.92kg) of group A (represent age from 20-34). There are 61.7% volunteers above mean weight and 38.3% volunteers are below mean weight in group A.

l) 12 Chapter 9 Observations and results

Weight Mean Graph of Group B No. 28

Weight Mean Chart (Group-B)
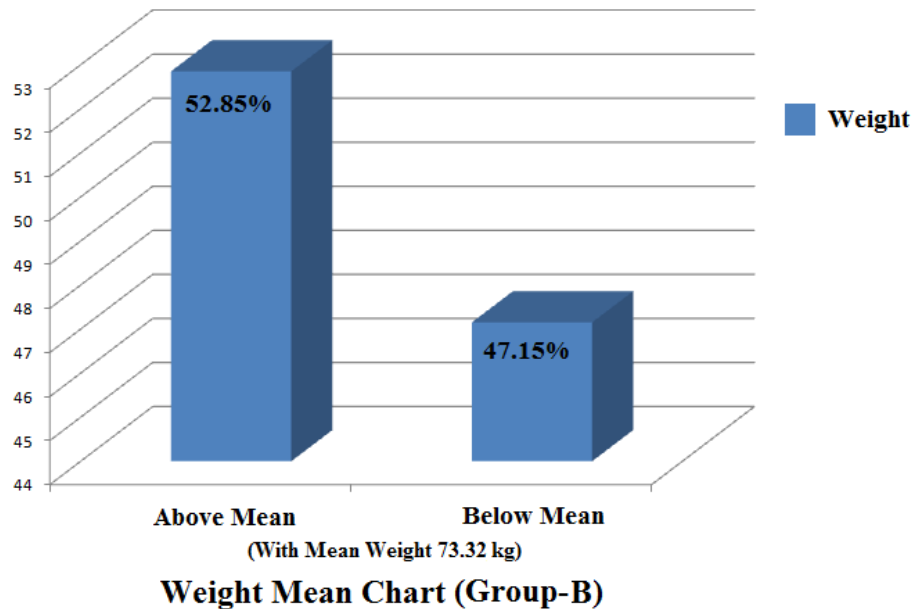
Weight Mean Table of Group B No. 28

Sr. No.	Weight	No. Of Volunteers	Percentage
1.	Above mean	102	52.85
2.	Below mean	91	47.15
Total		193	100%

Result:

Graph 28 and table 28 shows the percentage of volunteers are above mean weight and below mean weight (with mean weight 73.32kg) of group B (represent Age from 35-50). There are 52.85% volunteers above mean weight and 47.15% volunteers are below mean weight in group B.

l) 12 Chapter 9 Observations and results

Prakriti Graph of Group A No. 29
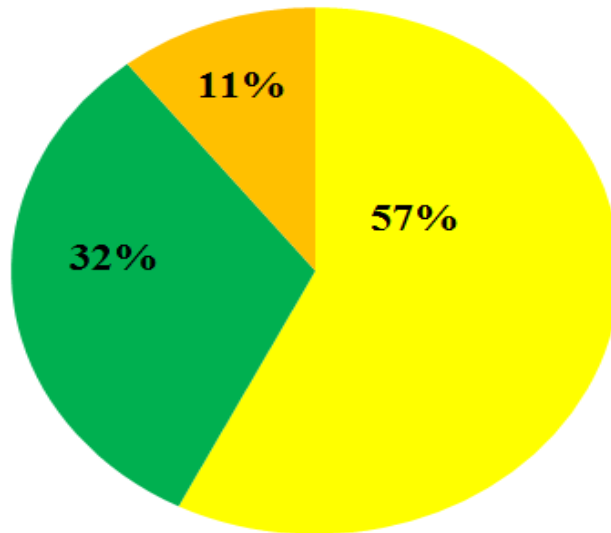
Prakriti Chart In Group A

Prakriti Table of Group A No. 29

Sr. No.	_Prakriti_	Volunteers	Percentage
1.	_Pitta_	27	57%
2.	_Vata_	15	32%
3.	_Kapha_	5	11%
Total		47	100%

Result:

Graph 29 and Table 29 represent the percentage of different _Prakriti_ namely _Vata Prakriti, Pitta Prakriti_ and _Kapha Prakriti_ in group A (represent Age from 20-34). There are 32% volunteers from _Vata Prakriti_, 57% volunteers from _Pitta Prakriti_ and 11% volunteers from _Kapha Prakriti_ in group A.

l) 12 Chapter 9 Observations and results

Prakriti <u>Graph of Group B No. 30</u>
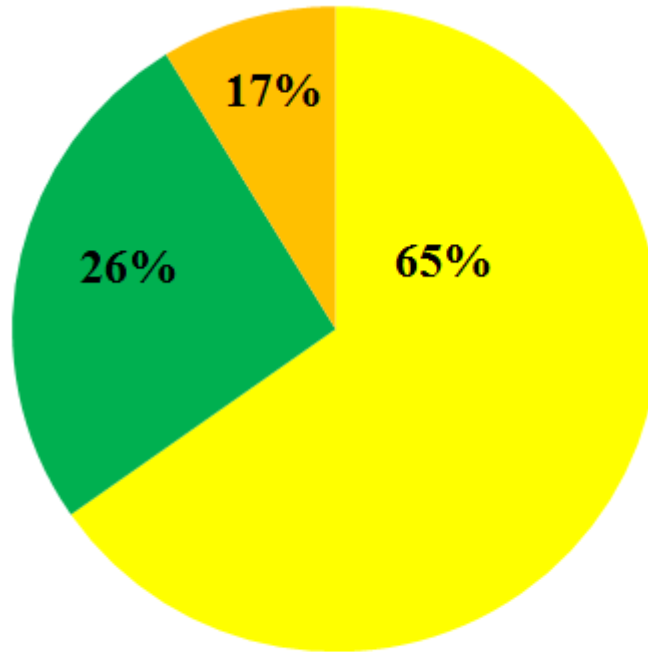
Prakriti Chart In Group B

Prakriti <u>Table of Group B No. 30</u>

Sr. No.	*Prakriti*	Volunteers	Percentage
1.	*Pitta*	126	65%
2.	*Vata*	50	26%
3.	*Kapha*	17	17%
		193	100%

<u>Result:</u>

Graph 30 and Table 30 represent the percentage of different *Prakriti* namely *Vata Prakriti, Pitta Prakriti* and *Kapha Prakriti* in group B (represent Age from 35-50). There are 26% volunteers from *Vata Prakriti*, 65% volunteers from *Pitta Prakriti* and 17% volunteers from *Kapha Prakriti* in group B.

l) 12 Chapter 9 Observations and results

Group A-Prakriti and Severity of *Khalitya* No. 31
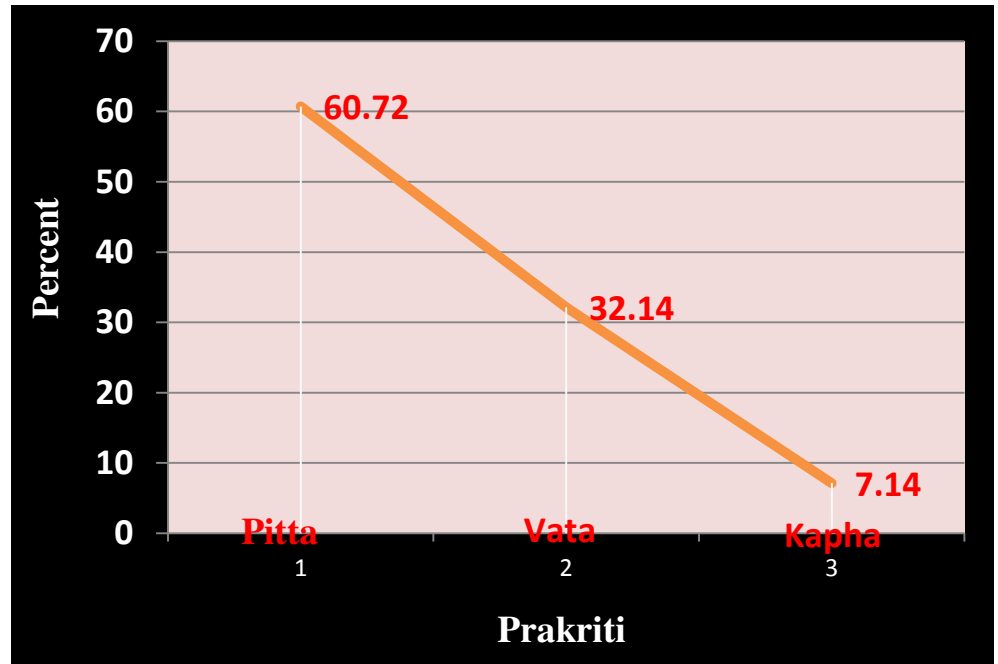
Prakriti and Severity of *Khalitya* Table of Group A No. 31

Sr. No.	Prakriti	Severity of Khalitya	Percentage
1.	Pitta	17	60.72%
2.	Vata	9	32.14%
3.	Kapha	2	7.14%
		28	100%

Graph 31 and Table 31 represent the percentage of severity in different *Deha Prakriti* namely *Pitta Prakriti, Vata Prakriti* and *Kapha Prakriti* in early age group A (represent age from 20-34). It is found that 60.72% *Khalitya* severity in *Pitta*, 32.14% in *Vata* and 7.14% in *Kapha Prakriti.*

l) 12 Chapter 9 Observations and results

Group B-Prakriti **and Severity of** *Khalitya* **No. 32**
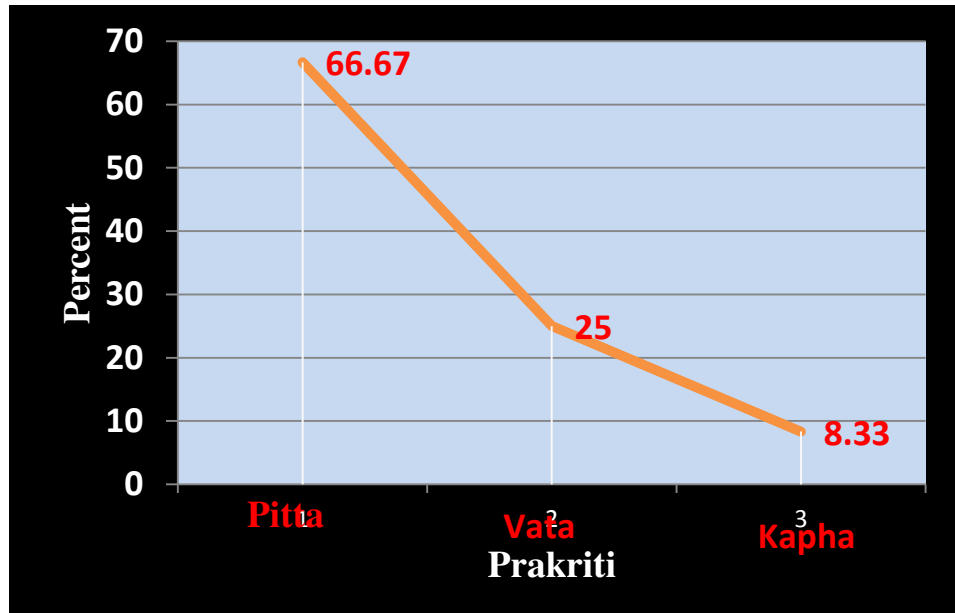
Prakriti **and Severity of** *Khalitya* **Table of Group B No. 32**

Sr. No.	*Prakriti*	Severity of *Khalitya*	Percentage
1.	*Pitta*	96	66.67%
2.	*Vata*	36	25%
3.	*Kapha*	12	8.33%
		144	100%

Graph 32 and Table 32 represent the percentage of severity in different *Deha Prakriti* namely *Pitta Prakriti, Vata Prakriti* and *Kapha Prakriti* in age group B (represent age from 35-50). It is found that 66.67% *Khalitya* severity in *Pitta*, 25% in *Vata* and 8.33% in *Kapha Prakriti.*

l) 12 Chapter 9 Observations and results

Generalized Linear Model

In statistic the generalized linear model is a flexible generalization of ordinary linear regression that allows for response variables that have error distribution models other than a normal distribution. The GLM generalizes linear regression by allowing the linear model to be related to the response variable via a link function and by allowing the magnitude of the variance of each measurement to be a function of its predicted value.

Generalized linear models were formulated by John Nelder and Robert Wedderburn as a way of unifying various other statistical models, including linear regression, logistic regression and Poisson regression. They proposed an iteratively reweighted least squares method for maximum likelihood estimation of the model parameters. Maximum-likelihood estimation remains popular and is the default method on many statistical computing packages. Other approaches, including Bayesian approaches and least squares fits to variance stabilized responses, have been developed. When our data is not categorical data we cannot use Linear Model to test the hypothesis. Here our data is not categorical so we used the Generalized Linear model method to test the hypothesis.

Test of Hypothesis (*Deha Prakriti*)

H_1: Effect of *Deha Prakriti* on parameters of *Khalitya* (hair loss) is not significant.

H_0: Effect of *Deha Prakriti* on parameters of *Khalitya* (hair loss) is significant.

Table 33

Test of Hypothesis (*Deha Prakriti*)					
Source	Sum of Squares	Degree's of freedom	Mean Sum of Squares	F-ratio	p-value
Deha Prakriti	220.674	1	220.674	551.051	0.000
Error	95.310	238	0.400		

l) 12 Chapter 9 Observations and results

Using Generalized Linear Model, we test the hypothesis that effect of *Deha Prakriti* on parameter of hair loss is significant or not. Here for *Deha Prakriti*, the p-value is 0.000 (i.e. 0<0.0005). So we can conclude that there is significant effect of *Deha Prakriti* on parameter of hair loss.

Test of Hypothesis (*Pitta Prakriti*)

H$_0$: Effect of *Pitta Prakriti* on Parameter of hair loss is significant.

Table 34

Test of Hypothesis					
Source	SS	Df	Mean Squares	F-ratio	p-value
Hypothesis	55.383	1	55.383	326.455	0.000
Error	25.617	151	0.170		

Using the Generalized Linear Model, we test the hypothesis that the *Pitta Prakriti* is effect on parameter of hair loss or not. Here we get the p-value is 0.000 (which is <0.0005). So we can conclude that *Pitta Prakriti* is significantly effect on parameter of hair loss.

Test of Hypothesis (*Kapha Prakriti*)

H$_0$: Effect of *Kapha Prakriti* on parameter of hair loss is significant.

Table 35

Test of Hypothesis					
Source	SS	df	Mean Squares	F-ratio	p-value
Hypothesis	58.909	1	58.909	243.000	0.000
Error	5.091	21	0.242		

Using the Generalized Linear Model, we test the hypothesis that the *Kapha Prakriti* is effect on parameter of hair loss or not. Here we get the p-value is 0.000 (which is <0.0005). So we can conclude that *Kapha Prakriti* is significantly effect on parameter of hair loss.

l) 12 Chapter 9 Observations and results

Test of Hypothesis (*Vata Prakriti*)

H$_0$: Effect of *Vata Prakriti* on parameter of hair loss is significant.

Table 36

Test of Hypothesis					
Source	**SS**	**df**	**Mean Squares**	**F-ratio**	**p-value**
Hypothesis	189.554	1	189.554	902.224	0.000
Error	13.446	64	0.210		

Using the Generalized Linear Model, we test the hypothesis that the *Vata Prakriti* is effect on parameter of hair loss or not. Here we get the p-value is 0.000 (which is <0.0005). So we can conclude that *Vata Prakriti* is significantly effect on parameter of hair loss.

Ayurveda is an eternal science with absolute principles like *Vata, Pitta and Kapha* theory and *Prakriti* which applies on every organism and can be observed by their functions. In relation the *Prakriti*, is stated that *Pitta Prakriti* persons are affected from features of hair loss *'khalityadoshaha'*. According to modern science in multicellular organism every cell is genetically homogenous but structurally and functionally heterogeneous·

Now it is the matter that which *Prakriti* has which type of effect in the relation of *Khalitya.* In present study it was found that according to modern parameters the severity of *Khalitya* was as in *Vata Prakriti* 69.23%, *Pitta Prakriti* 73.86% and *Kapha Prakriti* 63.64%. *Pitta Prakriti* has the highest hair loss which supports the ayurvedic theory of *Khalitya. Ayurveda* states that *Pitta Prakriti* persons are specially affected from hair loss comparatively others. This proves the present study.

l) 12 Chapter 9 Observations and results

Test of Hypothesis (Age Group)

There are two Age Groups in our study. One of them is 20 to 34 years and another one is 35 to 50 years. Again data is non categorical so we have to use Generalized Linear Model instead of Linear Model to test the hypothesis whether the age group is effect significantly on parameter of hair loss or not.

H_0: Effect of Age Group on parameter of hair loss is significant.

Table 37

Test of Hypothesis (Age Group)					
Source	**SS**	**df**	**Mean Squares**	**F-ratio**	**p-value**
Age Group	33.514	1	33.514	34.033	0.000
Error	233.384	237	0.985		

Using Generalized Linear Model and we test the hypothesis that effect of age group on parameter of hair loss is significant or not. As we discussed above, in age group there is also p-value is 0.000 (0<0.0005) significant. So we can conclude that age group is also significantly effect on the parameter of hair loss.

m) 13Chapter 10 Discussion

It is found that Effect of *Deha Prakriti* on parameter of hair loss is significant. We tested the hypothesis that effect of *Deha Prakriti* on parameter of hair loss is significant or not. Here for *Deha Prakriti*, the p-value is 0.000 (i.e. 0<0.0005). So we can conclude that there is significant effect of *Deha Prakriti* on parameter of hair loss.

In this study it was found that in *Vata Prakriti* volunteers are not having mild hair loss. They were having 30.77% moderate while 69.23% severe hair losses. It may be due to the properties of *Vata Dosha* which may harm the *'Keshbhumi'* (Scalp) as *Ruksha*, *Khara* and *Parush* [1], which is not good sign of *'Keshbhumi'* for hairs. [2]

No one volunteer was found having mild hair loss in *Pitta Prakriti* out of 153 but 26.14% were having moderate hair loss against severe hair loss possessing 73.86%. According to *Ayurveda* persons possessing *Pitta Prakriti* are found with more hair loss rather than other two *Prakriti* due to respective properties of *Pitta*. This study corroborates the description found about *Pita Prakriti* in *Ayurvedic* texts, [3] [4] this may be due to the *Pitta* properties like *Teekshana*.

Kapha Prakriti volunteers having zero percent of mild hair loss, moderately 36.36% and severely 63.64% were found in this study. This reflects that *Kapha Prakriti* volunteers are least affected rather than other two *Prakriti* due to its *Snigdhadi Guna* attributes. [5] [6]

There are 10 stages of Hamilton Norwood scale of hair loss or *Khalitya*. We assessed the hair loss *(Khalitya)* according to Hamilton Norwood Scale than *Deha Prakriti* determination. It was found that *Vata Prakriti* volunteers have highest percentage of stage 3A having 24.62%, simultaneously *Khapa Prakriti* volunteers also have the highest percentage (27.27%) of stage 3A rather than other stages. This may be due to *Ahitkara Ahara Vihara* in *Kaph Prakriti* volunteers. In contrast above the *Pitta Prakriti* volunteers have the highest percentage of Hamilton Norwood scale of hair loss stage 6 having 21.57%, rather than other stages. The stage 3A shows some

minimal receding hairline in the front or the side of scalp but in stage 6 there won't be any difference from Vertex and anterior thinning. Whole frontal and top part of head is a goner. The bridge of hair that crosses the crown is gone with only sparse hair remaining. The frontotemporal and vertex regions are joined together and the extent of hair loss is greater.

In this regard we can say that the *Pitta Prakriti* persons are more prone or have more severe *Khalitya* rather than other remaining *Prakriti*. [3][4][5]

The severity in early age group A in different *Prakriti* namely *Pitta Prakriti, Vata Prakriti* and *Kapha Prakriti* (represent age from 20-34) is found 60.72% *Khalitya* severity in *Pitta*,32.14% in *Vata* and 7.14% in *Kapha Prakriti.* In age group B it is found that 66.67% *Khalitya* severity in *Pitta*, 25% in *Vata* and 8.33% in *Kapha Prakriti.* In both groups it was found that *Pitta Prakriti* volunteers have severe hair loss other than *Vata* and *Kapha.* That means *'Kshipra' Khalitya* is seen in *Pitta Prakriti* only in both age groups, according to *Acharya Charaka.* [3]

In this study it was also observed that age factor is also responsible or not for hair loss. The groups were formed according to average life expectancy in India according to Union ministry of health and family welfare of India that is 69.6 (in round figure 70 years) respectively in 2011-2015 mentioned on the website of Union ministry of health and family welfare of India. [7] In continuation this regard *Aacharya Charaka* abbreviated in the end of age investigation that according to age characteristic features the individuals should examined in related three categories of Life span. [8]

In group 'A' it was found that having age from 20 to 34 years with mean age of 31.11 years, 68.08% volunteers were found above the mean against 31.92% volunteers below the mean. It shows that with age growing hair fall increases. It may be due to changes in *Dhatus* and *Doshas*. In this period *Pitta* mainly expends and after that

during late age there is diminution of the *Dhatus* and organs etc. so it may be a main cause as addressed by *Charaka*. [9]

Having mean age 45.98 years in group B (running between 35-50 years) there are 60.62% volunteers above mean age and 39.38% volunteers are below mean age which infers that age has a major role in hair loss. With age growing *Vata Dosha* increases in body which causes the hair loss in particulars. People are taking excessive salt in *Shaurashtra* region which also affect the accumulation of *Doshas* and hair loss that is why hair loss is seen also in below mean population. [10] [11]

In group A 76.60% volunteers were gaining non vegetarians food which is more than vegetarians having with 23.40%. In group B non vegetarians were 70.47% while vegetarians were only 29.53%. Indians take non vegetarian diet with excessive salt and spice which accumulates the *Pitta Dosha* and causes of hair falling, while nonveg food is a good source of protein but due to the way of preparing it increases the *Pitta Dosha* and ultimately it cause hair falling in where alcohol is band in *Shaurashtra* region.

Education factor also effects of hair falling. In both groups it was found that graduate and post graduates volunteers are more prone to hair falling due to stress. Due to worry and anger *Vata* and *Pitta* increases in body and causes of hair loss.

Group A Volunteers having mean height 169.81 cm are found that 74.47% are above the mean and 25.53% are below the mean out of 47. In group B representing mean height of 170.86cm is having 58.55% above the mean against 41.45% volunteers below the mean height out of 193. More height is the virtue of *Vata Dosha* so it may due to *Vata Dosha* and *Prakriti*.

In group A and B (age groups) no one Volunteer was found resembling Norwood Type Stages of 1 and 2 while in group A volunteers of stage 3A with 30% were found much more than others.

m) 13Chapter 10 Discussion

Like that maximum volunteers resembled of 3A having 19.17% in the group B.

Service Class volunteers having 61.7% are maximum in group A out of 47 rather than others like businessmen and students while in group B businessmen volunteers were found in maximum 56.48% out of 193 volunteers. It shows that service class volunteers and business class volunteers are more prone to hair loss due to their jobs and business tensions.

Observing parameters in group A it was found that there are 40.43% volunteers having moderate parameter and 59.57% volunteers having severe parameter of hair loss out of 47 volunteers like that there are 25.39% volunteers having moderate parameter and 74.61% volunteers having severe parameter of hair loss in group B. The severity of baldness was found more in group B which resembles of more age group. This shows the direct effect of aging on baldness. With aging *Vata Dosha* increases and it affects the *Keshbhumi* (Scalp) results in more hair loss. [12]

There are 61.7% volunteers above mean weight and 38.3% volunteers are below mean weight in group A out of 47 volunteers having mean weight of 69.92kg while there are 52.85% volunteers above the mean weight and 47.15% volunteers are below mean weight in group B having mean weight 73.32. It concludes that more weight is more risky factor for hair falling due to weak nutrition and physical work. *Aacharya Charaka* says in *Sutrasthana* chapter *Ashtouninditiya* that the *Sthool* people have general debility, due to this in them the nutrient and essential parts for hairs reach less and they affect from *Khalitya*. So in the case of fatty persons, other *Dhatus, Updhatus* and their respective *Mala* do not grow to the extent, fat grows. [13]

In group A there are 32% volunteers from *Vata Prakriti* against 26% in group B, 57% volunteers from *Pitta Prakriti* against 65% in group B and 11% volunteers from *Kapha Prakriti* of group A against 17% of group B. It corroborates the *Ayurvedic* principle that due to

m) 13Chapter 10 Discussion

Pitta Dosha properties having *Pitta Prakriti* persons or volunteers are more prone for hair loss than others. *Vata Prakriti* is also reflecting in itself as a moderately cause for hair loss due to *Vata Dosha* properties.

Psychological effect is also marked on baldness. Alopecia *(Khalitya)* clearly was a stressful experience for both sexes, but substantially more distressing for women. Relative to control subjects, women with alopecia possessed a more negative body image and a pattern of less adaptive functioning. [14] *Aacharya Charaka* stated that the *Paitik Prakriti* individuals are very aggressive mentality. [15] Sharangadhara has abbreviated that they have more anger. [16] *Aacharya sushruta* commented that having *Pitta Prakriti* persons becomes angry. [17] These all attributes effects on the growth of hairs and results in baldness or *Khalitya*.

References

1. वातस्तु रूक्षलघुचलबहुशीघ्रशीतपरूषविशद: । वैद्य जयदेवजी त्रिकमजी आचार्य / च. वि. 8/98/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

2. केशभुमि: स्निग्धा लोहिता निर्मला निर्व्रणा च प्रशस्यते। प्रो. पी.वी.तिवरी /का.सू.28.6/76/2013/वाराणसी/ चौखम्बा विश्वभारती प्रकाशन/ISBNISBN 97893-81301-03-6(REPRINT)

3. तस्यौष्ण्यात् पित्तला: भवन्त्युष्णासहा:, सुकुमारावदातगत्रा: उष्णमुखा: प्रभूतपिप्लुव्यङ्गतिलपिडका:, क्षुत्पिपासावन्त: क्षिप्रवलीपलितखालित्यदोषा:............... वैद्य रणजीतराय देशाई/

अध्याय 34/775/च.वि.8/17 /आयुर्वेदीय क्रिया शारीर / सस्करण 6 / नागपुर/श्री वैधनाथ आयुर्वेद भवन लिमिटेड / 1992 /

4. वलीपलितखालित्यजुष्टो……… वैद्य रणजीतराय देशाई/ अध्याय 34/775/सु.शा.4/68-71/आयुर्वेदीय क्रिया शारीर / सस्करण 6 / नागपुर/श्री वैधनाथ आयुर्वेद भवन लिमिटेड / 1992 /

5. ………………..घननीलकेश:। वैद्य रणजीतराय देशाई/ अध्याय 36/804/अ. ह्र. शा.3/96-103/आयुर्वेदीय क्रिया शारीर / सस्करण 6 / नागपुर/श्री वैधनाथ आयुर्वेद भवन लिमिटेड / 1992 /

6. स्थिरकुटिलातिनीलकेशो…………. वैद्य रणजीतराय देशाई/ अध्याय 36/803/सु.शा.4/72-76/आयुर्वेदीय क्रिया शारीर / सस्करण 6 / नागपुर/श्री वैधनाथ आयुर्वेद भवन लिमिटेड / 1992 /

7. The Times Of India 29th January2014

8. …….आयुषो लक्षणतश्च प्रमाणमुपलभ्य वयसस्त्रित्वं विभजेत् ॥ सत्यनारायण शास्त्री/ च. वि. 8/122/782/वाराणसी/ चौखम्बा भारती अकादमी/2008

9. वयस्त्रेति…… सत्यनारायण शास्त्री/ च. वि. 8/122/782/वाराणसी/ चौखम्बा भारती अकादमी/2008

10. सोऽतियुक्तोऽस्रपवनं खलितं पलितं वलिम् । /प्रो. के. आर. श्रीकान्त मूर्ति / अ. हृ. शा. /10/13/145/ अ. हृ./ प्रथम वोल्युम / वाराणसी / चौखम्बा कृष्णदाश प्रकाशन / 2013 /

11. लवणो रस:………………वलिपलितखालित्यमापादयति, अपि च……………/ वैद्य जयदेवजी त्रिकमजी आचार्य/ च. सू.26/42(3)144/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका / वाराणसी /चौखम्बा सुभारती प्रकाशन/2009/

12. वयोहोरात्रिभुक्त्तानां तेऽन्तमध्यादिगा: क्रमात् । प्रो. के. आर.

श्रीकान्त मूर्ति / अ. हृ. सू. /1/8/6/ प्रथम वोल्युम / वाराणसी /

चौखम्बा कृष्णदाश प्रकाशन /2013

13. तस्य ह्यतिमात्रमेदस्विनो मेद एवोपचीयते न तथेतरे धातव:,.......डो.

रामकरण शर्मा एवं वैध भगवानदाश /च. सू./21/4/375/चरक संहिता/

वोल्युम-1/वाराणसी/ चौखम्बा सन्सकृत सिरीज ओफिस/2014

14. Thomas F Cash/Psychological effects of androgenetic alopecia

on women: Comparisons with balding men and with female

control subjects/Journal of the American Academy of

Dermatology/Volume 29,issue 4/Pages568-575/October 1993

15. ....क्लेशासहिष्णवो......... वैद्य जयदेवजी त्रिकमजी आचार्य /

च. वि. 8/97/277/ चरक संहिता-आयुर्वेद दीपिका- चक्रपाणि टीका /

वाराणसी /चौखम्बा सुभारती प्रकाशन/ 2009/

16. अकाले पलितैर्व्याप्तो धीमान् स्वेदी च रोषण:।

स्वप्नेषु ज्योतिषां द्रष्टा पित्तप्रकृतिको नर: ॥ प्रो. कृष्णकान्त

पाण्डे/शा. पू. 6/21/क्रिया शारीर /153/1/107/ वाराणसी / चौखम्बा

कृष्णदास अकेडमी/2007/

17. क्षिप्रकोपप्रसादो......| वैद्य जयदेवजी त्रिकमजी आचार्य/ सु.शा.

4/68/361/ सुश्रुत संहिता-डल्हण टीका / वाराणसी / चौखम्बा

सुभारती प्रकाशन/ 2008/

n) 14 Chapter 11 Abstract

Ayurveda has a unique concept of *Dosha, Dhatu, Mala* and *Prakriti* etc. In concept of *Dosha* and *Prakriti* in our *Ayurvedic Samhitas*, it is abbreviated pithily that which type of *Dosha Prakriti* will have the particular stage of *Khalitya* (baldness). We observed actual effect of *Doshas* on *Prakriti* for *Khalitya* in relation to early and late changes in baldness. There were lacunae to understand nature and extent of hair loss in relation to *Prakriti* for that individual can use safeguards without doctor help.

In the reference of *Prakriti* characteristic features are stated like in *Pitta Prakriti* [1] but there is not mentioned the procedure to identify the features scientifically that at which grade limit and nature of baldness we can say that it is that proper position of *Khalitya*, it is asked to doctor to determine according to his mind and there is not a well established scientific and statistically approved theory which can satisfy the scientific community that can say that *Pitta Prakriti* people are more prone for *Khalitya* (baldness). In above scenario this study was selected.

Aim & Objectives

Study aims to assess the *Khalitya* (baldness) on modern scientific scale parameters in different *Deha Prakriti*. It has objectives, to define the grade of baldness in different *Deha Prakriti.*

Test of Hypothesis (*Deha Prakriti*)

Here our data is not categorical so we used the Generalized Linear model method to test the hypothesis.

H_1: Effect of *Deha Prakriti* on parameters of *Khalitya* (hair loss) is not significant.

H_0: Effect of *Deha Prakriti* on parameters of *Khalitya* (hair loss) is significant.

n) 14 Chapter 11 Abstract

Table 1

Test of Hypothesis (*Deha Prakriti*)					
Source	Sum of Squares	Degree's of freedom	Mean Sum of Squares	F-ratio	p-value
Deha Prakriti	220.674	1	220.674	551.051	0.000
Error	95.310	238	0.400		

Using Generalized Linear Model, we test the hypothesis that effect of *Deha Prakriti* on parameter of *Khalitya* (hair loss) is significant or not. Here for *Deha Prakriti*, the p-value is 0.000 (i.e. 0<0.0005). So we can conclude that there is significant effect of *Deha Prakriti* on parameter of *Khalitya* (hair loss).

An effort is made to collect and compile all available literature and information of the *Prakriti* and Hamilton baldness scale. Samples were divided in two groups, according to age criteria to observe actual effect of *Doshas* on *Prakriti* for *Khalitya* in relation to early and late changes in baldness. Volunteers running between 20 to 34 years are considered as in A group while running between 35 to 50 years are considered as in B group. Below than 20 are not include due to childhood and above than 50 are excluded due to old age. The life expectancy in India is 70 years in now days, so in both side excluding 20 years for early and old respectively, age groups was chosen having the mid in both groups that is half of the life expectancy. [2]

First of all observation and identification of *Khalitya* (hair loss or baldness) is done with the help of Hamilton Norwood Scale in the volunteers after that according to questionnaire *Prakriti* is decided of the same volunteers. The questionnaire, which is prepared for the assessment of *Prakriti* based on distinctiveness described in standard textbooks of

Ayurveda (Questionnaire is attached annexure-7). *Deha Prakriti* is designated in seven type of *Prakriti.* In present study according to questionnaire symptoms of a *Dosha* having 66% & above are considered as *Ekadosaja Prakriti* on the basis of previous studies. [3]

Inclusion & exclusion

Only male baldness was included, [4] with healthy persons in between 20-50 years of age. Females, chronic diseased persons, were excluded.

Flow Chart of Experimental Study Design
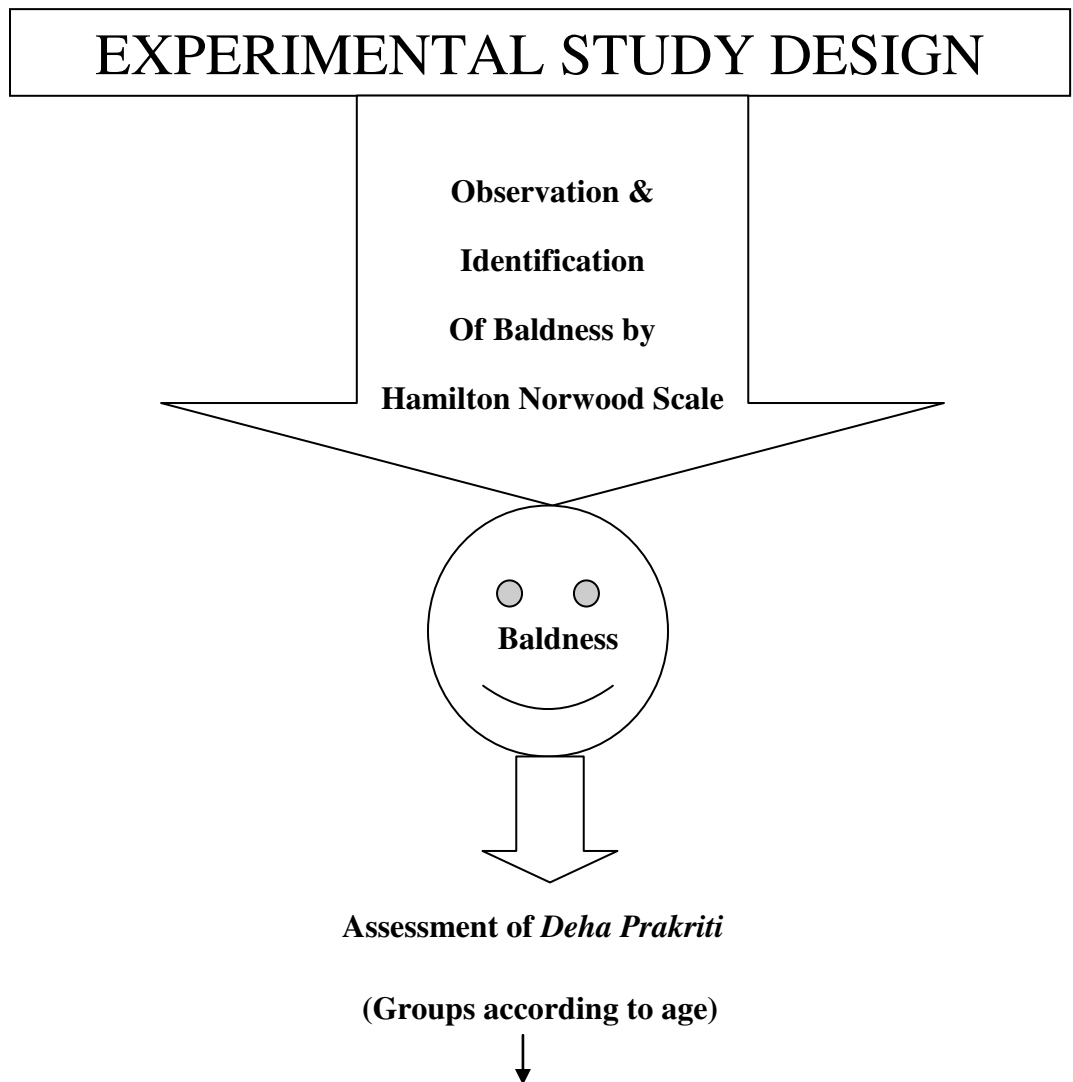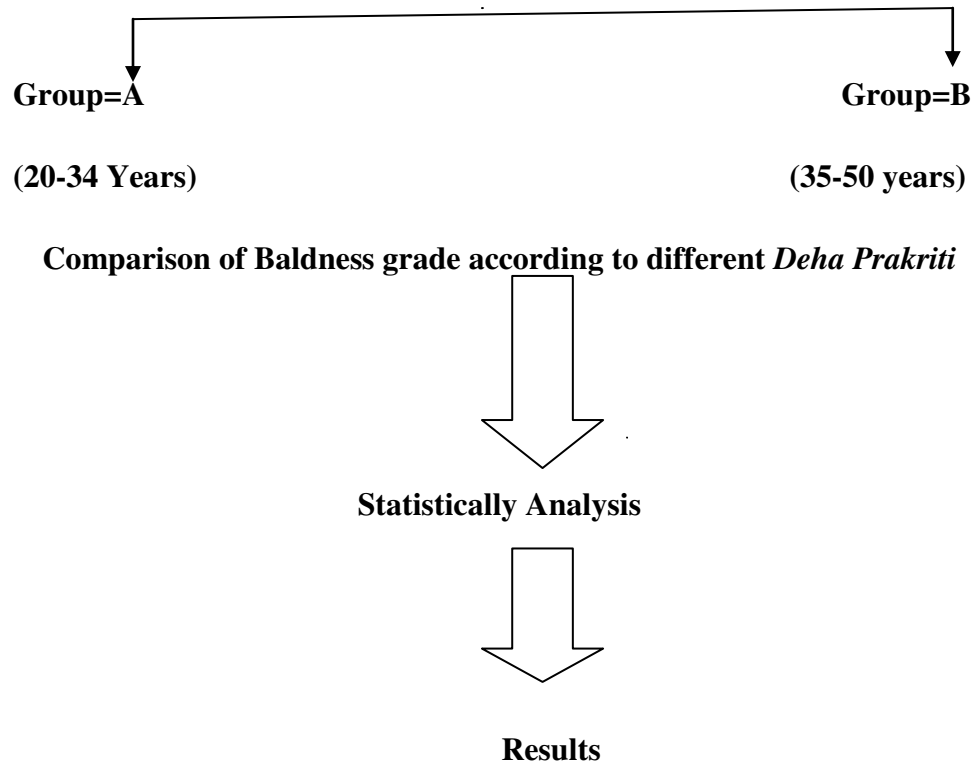
EXPERIMENTAL STUDY DESIGN

Observation &

Identification

Of Baldness by

Hamilton Norwood Scale

Baldness

Assessment of *Deha Prakriti*

(Groups according to age)

178

n) 14 Chapter 11 Abstract

Group=A   **Group=B**

(20-34 Years)   **(35-50 years)**

Comparison of Baldness grade according to different *Deha Prakriti*

Statistically Analysis

Results

<u>Hamilton Norwood baldness Scale</u>

The Hamilton-Norwood scale is a way of measuring male pattern baldness. It was introduced by Dr. James Hamilton in the 1950s and later revised and updated by Dr. O' Tar Norwood in the 1970s. The most widely accepted standard is the Norwood classification for men it is used in now days for research works. There are 2 main types of balding, anterior (front) and vertex (back), as this alternate view of the Norwood scale shows. With this technique, we can address any extent of baldness from early loss along the frontal hairline (Norwood Type 1st stage) to severe global loss (Norwood Type 7th stage) as this scale is categorized in seven stages. Stage I shows minimal to no hair loss along the fronto-temporal expanse. There won't be a Stage 1 because it's the stage where you have no hair loss. [5, 6, 7]

n) 14 Chapter 11 Abstract

Observations

H.N. baldness stages in different *Deha Prakriti*

Norwood Type Stages In *Vata Prakriti*

Table 2

Norwood Type Stage	1	2	*3A*	3V	4A	4V
Percentage	0	0	*24.62*	1.54	12.3	4.62
Norwood Type Stage	5A	5V	6	*7*		
Percentage	13.85	13.85	10.77	*18.46*		

Norwood Type Stages In *Pitta Prakriti*

Table 3

Norwood Type Stage	1	2	3A	3V	*4A*	4V	5A
Percentage	0	0	18.95	1.3	*19.61*	5.88	7.19
Norwood Type Stage	5V	*6*	7				
Percentage	10.46	*21.57*	15.03				

Norwood Type Stages In *Kapha Prakriti*

Table 4

Norwood Type Stage	1	2	*3A*	3V	4A	4V
Percentage	0	0	*27.27*	9.09	9.09	00
Norwood Type Stage	5A	5V	6	*7*		
Percentage	13.64	13.64	9.09	*18.17*		

Parameters:-

In present study the parameters of *Khalitya* (baldness) used as per bellow

1. Mild *Khalitya* (mild hair loss) Stages 1and 2V hair loss

n) 14 Chapter 11 Abstract

2. Moderate *Khalitya* (moderate hair loss) Stages 2A,3A,3V&4V considered

3. Severe *Khalitya* (severe hair loss) Stages 4A to 7 considered

Observation of Parameters In different *Prakriti*

Parameters In *Vata Prakriti* Table 5

Sr. No.	Parameters	No. Of Volunteers	Percent
1	Mild	00	0%
2	Moderate	20	30.77%
3	Severe	45	69.23%
	Total	65	100%

Parameters In *Pitta Prakriti* Table 6

Sr. No.	Parameters	No. Of Volunteers	Percent
1	Mild	00	0%
2	Moderate	40	26.14%
3	Severe	113	73.86%
	Total	153	100%

Parameters In *Kapha Prakriti* Table 7

Sr. No.	Parameters	No. Of Volunteers	Percent
1	Mild	00	0%
2	Moderate	8	36.36%
3	Severe	14	63.64%
	Total	22	100 %

n) 14 Chapter 11 Abstract

Results & Discussion

There are total 10 different types of Norwood stages. We did not find any volunteer having Norwood type stage 1 and 2 in *Vata Prakriti*. We show that maximum number of volunteers (24.62%) have Norwood type stage 3A in *Vata Prakriti* out of 65 volunteers.

In present study we did not find any volunteer having Norwood type stage 1 and 2 in *Pitta Prakriti*. We show that maximum number of volunteers (21.57%) have Norwood type stage 6 in *Pitta Prakriti* out of 153 volunteers.

We did not find any volunteer having Norwood type stage 1, 2 and 4V in *Kapha Prakriti*. We show that maximum number of volunteers (27.27%) have Norwood stage 3A in *Kapha Prakriti* out of 22 volunteers.

In this study it was found that in *Vata Prakriti* volunteers are not having mild hair loss. They have 30.77% moderate while 69.23% severe hair losses. It may be due to the properties of *Vata* which may harm the '*Keshbhumi*' (Scalp) as *Ruksha*, *Khara* and *Parush*. '*Ruksha, Khara* and *Parusha Keshbhumi'* is not good for hairs. [8]

No one volunteer was found having mild hair loss in *Pitta Prakriti* out of 153 but 26.14% were having moderate hair loss against severe hair loss possessing 73.86 %. According to *Ayurveda* persons possessing *Pitta Prakriti* are found with more hair loss rather than other two *Prakriti* due to respective properties of *Pitta*. This study corroborates the description found about *Pita Prakriti* in *Ayurvedic* texts. [9, 10]

Kapha Prakriti volunteers having zero percent of mild hair loss, moderately 36.36% and severely 63.64% are found in this study. This reflects that *Kapha Prakriti* volunteers are least affected rather than other two *Prakriti* due to its *Snigdhadi Guna* attributes. The moderate parameter

n) 14 Chapter 11 Abstract

is found highest in *Kapha Prakriti* having 36.36%, while in *Vata* and *Kapha* 30.77% and 26.14% respectively. In *Kapha Prakriti* it may be due to obstructive properties of *kapha*.

In this study it was also observed that age factor is also responsible or not for hair loss. In group 'A' it was found that having age from 20 to 34 years with mean age of 31.11 years, 68.08% volunteers were found above the mean against 31.92% volunteers below the mean. In group B (represent age from 35-50) it was found that the percentage of volunteers are above mean age are 60.62% and below mean age 39.38% volunteers (with mean age 45.98 years). It shows that with age growing hair fall increases. It may be due to changes in *Dhatus* and *Doshas*. In this period *Pitta* mainly expends so it may be a main cause as addressed by the great *Aacharya Charaka.* [11]

In group A and B no one volunteer was found resembling Norwood Type Stages of 1 and 2 while in group A volunteers of stage 3A with 30% were found much more than others. Like that maximum volunteers resembled of 3A having 19.17% in the group B. It reflects that anterior pattern of *Khalitya* (baldness) is more common in India.

Usefulness

According to this study we can satisfy the scientific community that *Pitta Prakriti* persons are more prone for severe *Khalitya* (hair loss) because the extent of hair loss is greater in *Pitta Prakriti* having Hamilton Norwood Baldness Scale stage 6 and severe parameters of *Khalitya* are found highest in *Pitta Prakriti* rather than other two *Prakriti*. If any subject effects from *Khalitya* (hair loss) with stage 3A he should take safeguards for *Khalitya* according to his *Prakriti* otherwise with the age *Khalitya* will expand which we found in this study.

n) 14 Chapter 11 Abstract

Therefore it becomes clear that modern life style is making change in food, environment and drink which shouldn't be tolerated to maintain a good health. According to *Ayurveda* we can suggest to individual's good life styles, food and drink habits connecting to their *Prakriti* as well as for their hair safeguards accordingly individuals can judge the type of food and other habit to maintain his hairs in respect of *Prakriti*.

Conclusion

➢ After study of 240 volunteers it was found that *Prakriti* influences the *Khalitya* (baldness). Although on the basis of observations and results following conclusion can be drawn. The study shows severe grade of *Khalitya* maximum in *Pitta Prakriti*. It corroborates the theory of *Ayurveda* that *Pitta Prakriti* persons are more prone for *Khalitya* [1].

➢ In *Kapha Prakriti* least severe grade hair loss has been found.

➢ The severe grade of baldness has been found most in *Pitta Prakriti* other than *Vata* and *Kapha Prakriti.*

➢ In relation of the objects in this study it was found that all stages may found in all three *Prakriti* but stage 3A is more common in India.

➢ Thus the aim of using Hamilton Norwood scale to assess the *Khalitya* (baldness) grades in different *Deha Prakriti* is achieved.

References

1.क्षिप्रवलीपलितखालित्यदोषा: …।वैद्य जयदेवजी त्रिकमजी आचार्य/च. वि. 8/97/277/ आयुर्वेद दीपिका/2009/Varansi/ चौखम्बा सुभारती प्रकाशन/2009

2. वयश्चेति कालप्रमाणविशेषापेक्षिणी हि शरीरावस्था वयोऽभिधीयते। वैद्य जयदेवजी त्रिकमजी आचार्य/च. वि. 8/122/280/ आयुर्वेद दीपिका/2009/वाराणसी/ चौखम्बा सुभारती प्रकाशन/2009

n) 14 Chapter 11 Abstract

3. Dr. Mukesh Gupata/Journal Of *Ayurveda*/ A study on anatomical characteristics of eye with reference to *Deha Prakriti*/Vol.III-3 / Jaipur /National institute of *Ayurveda*/ July-Sep 2009

4. खालित्यं पुंसामेव न तु योषिताम् । वैद्य जयदेवजी त्रिकमजी आचार्य/सु.नि. 13/33-34/322/ सुश्रुत संहिता-डल्हण टीका/ वाराणसी / चौखम्बा सुभारती प्रकाशन/2008

5. Drirk Kranz /Body image/Young men's coping with Androgenetic alopecia-(HNS),/ Volume 8/issue 4/343-348, Sep-2011/

6. M.Bienova,R Kucerova/ ADAA /Androgenetic Alopecia and current methods of treatment-(HNS)/ 14(1)/5-8 /2005

7. Sehqual VN Kakr-Agarwal/ Male pattern Androgenetic alopecia in an Indian context-(HNS)/JEADV/ Volume-21,Issue 4/473-479 / A/2007

8. केशभुमि: स्निग्धा लोहिता निर्मला निर्व्रिणा च प्रशस्यते। प्रो. पी.वी.तिवरी /का.सू.28.6/76/2013/वाराणसी/ चौखम्बा विश्वभारती प्रकाशन/ISBNISBN 97893-81301-03-6(REPRINT)

9. क्षिप्रवलीपलितखालित्यदोषा:...। वैद्य जयदेवजी त्रिकमजी आचार्य/च. वि. 8/97/277/ आयुर्वेद दीपिका/2009/ वाराणसी / चौखम्बा सुभारती प्रकाशन/2009

10. तेजोऽनिलाधै: सह केशभूमिंदग्धवाऽऽशु कुर्यात् खलतिं नरस्य। वैद्य जयदेवजी त्रिकमजी आचार्य/च. चि. 26/132/606 आयुर्वेद दीपिका/2009/Varansi/ चौखम्बा सुभारती प्रकाशन/2009

11. अवशीर्यमाणधातुगुणं पित्तधातुप्रायम् , वैद्य जयदेवजी त्रिकमजी आचार्य/च. वि. 8/122/280/ आयुर्वेद दीपिका/2009/वाराणसी/ चौखम्बा सुभारती प्रकाशन/2009

0) 15 Chapter12 Conclusion

The main aim of present study was to assess the *Khalitya* (baldness) on modern scientific scale parameters in different *Deha Prakriti*. After study of 240 volunteers it was found that *Prakriti* influences the *Khalitya* (baldness).Although on the basis of observations and results following conclusion can be drawn.

➢   The study shows maximum severe grade of *Khalitya* in *Pitta Prakriti*. It corroborates the theory of *Ayurveda* that *Pitta Prakriti* persons are more prone for *Khalitya*.There are 10 stages of Hamilton Norwood scale of baldness or *Khalitya*. We assessed the baldness *(Khalitya)* according to Hamilton Norwood Scale than *Deha Prakriti* determination. It was found that *Vata Prakriti* volunteers have highest percentage of stage 3A having 24.62%, simultaneously *Khapa Prakriti* volunteers also have the highest percentage (27.27%) of stage 3A rather than other stages. In contrast above the *Pitta Prakriti* volunteers have the highest percentage of Hamilton Norwood scale of hair loss stage 6 having 21.57%, rather than other stages. The stage 3A shows some minimal receding hairline in the front or the side of scalp but in stage 6 there won't be any difference from Vertex and anterior thinning. The frontotemporal and vertex regions are joined together so the extent of hair loss is greater in *Pitta Prakriti*.

➢ It shows that with age growing hair fall increases and according to different *Deha Prakriti* different grade of *Khalitya* have been seen.

➢ The severe grade of baldness has been found most in *Pitta Prakriti* other than *Vata* and *Kapha Prakriti* in group A. According to this the theory of *'Kshipra Khalitya'* of *Acharya Charaka* is revalidated. In *Vata Prakriti* also severe grade hair loss was found more with increasing age. In *Kapha Prakriti* least severe grade hair loss have been found with increase age.

➢ Thus the aim of using Hamilton Norwood scale to assess the *Khalitya* (baldness) grades in different *Deha Prakriti* is achieved.

1. An observational study of *khalitya* in different *Deha Prakriti* with scale in females.
2. Assesment of *Aharatmak* and *Viharatmak* risk factors in different *Deha Prakriti.*
3. *Hormonal* assessment in different *Deha Prakriti* volunteers having baldness.
4. An observational study of *khalitya* in different *Deha Prakriti* with the help of hamilton norwood scale or othar scales in male and females of *Anup* and *Sadharana Desha.*
5. Study of baldness and efficacy of *Asthidhatvagni* regulating *Chikitsa* in baldness

q) 17 Chapter 14 Annexure

Total annexure =09 (Nine)

Sr. No.	Annexure No.	Annexure Name	Total Pages Of Annexure
1.	1.	Master Sheet	07
2.	2.	Master Sheet Of *Vata Prakriti*	02
3.	3.	Master Sheet Of *Pitta Prakriti*	04
4.	4.	Master Sheet Of *Kapha Prakriti*	01
5.	5.	Master Sheet Of Group A	02
6.	6.	Master Sheet Of Group B	05
7.	7.	Format Of *Prakriti* Questionnaire	06
8.	8.	Format Of Volunteer Consent Form	01
9.	9	Volunteers Sample Photo [Hamilton Norwood Stages]	02
10.	10	Abbrevations	1
		Total Pages Of Annexure	30

An observational study of KHALITYA in different DEHA PRAKRITI with the help of Hamilton Norwood Scale

Master Sheet (Chart) (Annexure-1)

Sr. No.	Age in years	Weight In Kg	Height in cm	Season	Diet	Occupation	Education Level	Deha Prakriti	Norwood Type Stage	Parameter Stage	Parameters of hair loss	Date
1	44	64	154	Rainy	Nonveg	Teacher	PG	Pitta	7	3	Severe	04-Jul-13
2	40	60	160	Rainy	Veg	Business	G	Vata	5- A	3	Severe	15-Jul-13
3	49	75	169	Rainy	Veg	Service	G	Pitta	5-A	3	Severe	15-Jul-13
4	38	70	173	Rainy	Nonveg	Business	8 th pass	Pitta	3-A	2	Moderate	15-Jul-13
5	50	70	174	Rainy	Veg	Service	G	Pitta	6	3	Severe	08-Aug-13
6	42	72	172	Rainy	Veg	Business	G	Pitta	3-A	2	Moderate	15-Aug-13
7	50	70	170	Rainy	Veg	Service	M	Pitta	6	3	Severe	22-Aug-13
8	48	71	170	Rainy	Veg	Business	G	Pitta	7	3	Severe	27-Aug-13
9	49	72	177	Rainy	Nonveg	Business	G	Pitta	4-A	3	Severe	27-Aug-13
10	49	70	167	Rainy	Veg	Business	M	Vata	3-A	2	Moderate	30-Aug-13
11	50	71	165	Rainy	Veg	Service	G	Pitta	7	3	Severe	03-Sep-13
12	34	72	172	Rainy	Nonveg	Service	G	Pitta	5-V	3	Severe	06-Sep-13
13	48	73	173	Rainy	Veg	Business	G	Vata	5-A	3	Severe	10-Sep-13
14	49	75	172	Rainy	Veg	Business	G	Pitta	3-A	2	Moderate	12-Sep-13
15	42	79	172	Rainy	Veg	Service	PG	Vata	4-A	3	Severe	16-Sep-13
16	43	75	170	Rainy	Veg	Service	PG	Pitta	4-A	3	Severe	23-Sep-13
17	40	70	175	Rainy	Veg	Service	G	Pitta	3-A	2	Moderate	26-Sep-13
18	44	76	170	Rainy	Veg	Service	PG	Pitta	5-V	3	Severe	30-Sep-13
19	50	76	170	Autumn	Veg	Business	G	Pitta	5-V	3	Severe	03-Oct-13
20	42	70	173	Autumn	Veg	Service	PG	Vata	7	3	Severe	04-Oct-13
21	47	75	170	Autumn	Veg	Business	G	Kapha	7	3	Severe	04-Oct-13
22	37	78	175	Autumn	Veg	Service	PG	Pitta	4-A	3	Severe	04-Oct-13
23	50	80	180	Autumn	Veg	Business	PG	Pitta	7	3	Severe	07-Oct-13
24	50	75	170	Autumn	Veg	Business	G	Vata	4-A	3	Severe	07-Oct-13
25	48	72	165	Autumn	Nonveg	Business	G	Pitta	5-V	3	Severe	08-Oct-13
26	34	65	165	Autumn	Veg	Service	G	Pitta	3-A	2	Moderate	08-Oct-13
27	50	76	172	Autumn	Veg	Service	G	Kapha	6	3	Severe	09-Oct-13
28	49	80	178	Autumn	Veg	Business	G	Kapha	5-V	3	Severe	18/Oct/13
29	50	65	154	Autumn	Veg	Service	G	Vata	3-A	2	Moderate	19/Oct/13
30	50	73	175	Autumn	Veg	Business	G	Pitta	4-A	3	Severe	24/Oct/13
31	49	75	165	Autumn	Veg	Business	G	Pitta	3-A	2	Moderate	26/Oct/13
32	49	76	176	Autumn	Veg	Business	G	Pitta	6	3	Severe	30/Oct/13
33	50	70	162	Autumn	Veg	Business	G	Kapha	7	3	Severe	01-Nov-13
34	48	75	176	Autumn	Veg	Business	G	Pitta	4-A	3	Severe	01-Nov-13
35	42	73	174	Autumn	Veg	Business	G	Pitta	4-V	2	Moderate	02-Nov-13
36	49	76	169	Autumn	Veg	Business	G	Pitta	5-A	3	Severe	02-Nov-13
37	45	75	174	Autumn	Veg	Business	G	Pitta	7	3	Severe	03-Nov-13
38	48	76	170	Autumn	Veg	Business	G	Vata	3-A	2	Moderate	04-Nov-13
39	50	74	168	Autumn	Veg	Business	G	Vata	7	3	Severe	04-Nov-13
40	50	76	174	Autumn	Veg	Farming	M	Pitta	7	3	Severe	04-Nov-13
41	48	74	170	Autumn	Veg	Farming	M	Pitta	3-A	2	Moderate	05-Nov-13
42	50	68	172	Autumn	Veg	Business	5th Pass	Vata	7	3	Severe	09-Nov-13
43	50	76	168	Autumn	Nonveg	Service	M	Vata	4-A	3	Severe	18/Nov/13
44	50	82	168	Autumn	Veg	Service	G	Kapha	3-A	2	Moderate	26/Nov/13
45	47	70	168	Autumn	Nonveg	Service	M	Vata	6	3	Severe	26/Nov/13
46	48	62	168	Autumn	Veg	Service	G	Pitta	3-A	2	Moderate	26/Nov/13
47	40	60	165	Autumn	Veg	Service	PG	Pitta	3-A	2	Moderate	26/Nov/13
48	50	62	153	Autumn	Nonveg	Service	M	Pitta	3-A	2	Moderate	26/Nov/13
49	41	54	165	Winter	Nonveg	Service	G	Vata	3-A	2	Moderate	02-Dec-13
50	36	85	158	Winter	Veg	Service	8th	Vata	4-V	2	Moderate	03-Dec-13
51	41	74	168	Winter	Veg	Service	PG	Pitta	4-A	3	Severe	05-Dec-13
52	40	80	168	Winter	Veg	Service	PG	Kapha	3-A	2	Moderate	13-Dec-13
53	32	68	172	Winter	Nonveg	Business	G	Pitta	3-A	2	Moderate	16-Dec-13
54	42	72	176	Winter	Nonveg	Business	G	Kapha	3-A	2	Moderate	17-Dec-13
55	32	70	170	Winter	Veg	Business	PG	Pitta	7	3	Severe	17-Dec-13
56	42	76	175	Winter	Veg	Business	G	Pitta	3-A	2	Moderate	20-Dec-13
57	48	70	170	Winter	Veg	Service	PG	Pitta	3-A	2	Moderate	21-Dec-13
58	34	78	176	Winter	Veg	Service	PG	Pitta	4-A	3	Severe	23-Dec-13
59	40	75	174	Winter	Veg	Business	G	Kapha	3-A	2	Moderate	24-Dec-13
60	34	72	170	Winter	Veg	Service	G	Pitta	3-A	2	Moderate	24-Dec-13
61	29	72	168	Winter	Nonveg	Service	G	Kapha	4-A	3	Severe	24-Dec-13
62	42	65	170	Winter	Nonveg	Business	G	Vata	5-A	3	Severe	25-Dec-13
63	45	76	173	Winter	Veg	Business	M	Pitta	5-A	3	Severe	25-Dec-13
64	35	58	158	Winter	Veg	Service	G	Pitta	7	3	Severe	26-Dec-13
65	22	40	150	Winter	Veg	Student	UG	Pitta	3-A	2	Moderate	26-Dec-13
66	35	55	165	Winter	Nonveg	Service	9th pass	Pitta	3-A	2	Moderate	26-Dec-13
67	21	65	165	Winter	Veg	Student	UG	Pitta	3-A	2	Moderate	26-Dec-13
68	22	44	153	Winter	Veg	Student	UG	Vata	3-A	2	Moderate	26-Dec-13
69	49	74	175	Winter	Veg	Business	G	Pitta	7	3	Severe	01-Jan-14
70	50	71	171	Winter	Nonveg	Business	G	Vata	6	3	Severe	01-Jan-14
71	33	69	170	Winter	Nonveg	Business	G	Pitta	6	3	Severe	01-Jan-14
72	44	72	171	Winter	Nonveg	Business	G	Pitta	3-A	2	Moderate	04/Jan/14

73	50	80	173	Winter	Veg	Business	G	Kapha	7	3	Severe	04/Jan/14
74	30	69	171	Winter	Veg	Business	G	Pitta	4-A	3	Severe	07/Jan/14
75	28	71	174	Winter	Veg	Service	12th Pass	Vata	3-A	2	Moderate	07/Jan/14
76	50	80	171	Winter	Veg	Business	G	Kapha	7	3	Severe	08/Jan/14
77	36	72	172	Winter	Veg	Business	PG	Pitta	3-A	2	Moderate	08/Jan/14
78	26	69	170	Winter	Veg	Service	G	Pitta	5-V	3	Severe	10/Jan/14
79	50	72	170	Winter	Nonveg	Business	G	Kapha	5-V	3	Severe	13-Jan-14
80	50	72	172	Winter	Veg	Business	12th Pass	Pitta	7	3	Severe	13-Jan-14
81	40	69	178	Winter	Nonveg	Service	PG	Pitta	6	3	Severe	18-Jan-14
82	30	66	172	Winter	Veg	Service	PG	Pitta	4-V	2	Moderate	18-Jan-14
83	48	73	170	Winter	Veg	Service	G	Pitta	3-A	2	Moderate	20-Jan-14
84	50	60	168	Winter	Veg	Service	M	Pitta	4-A	3	Severe	20-Jan-14
85	50	65	165	Winter	Veg	Service	M	Vata	7	3	Severe	21-Jan-14
86	50	70	172	Winter	Nonveg	Service	M	Vata	7	3	Severe	22-Jan-14
87	42	71	170	Winter	Veg	Service	G	Pitta	4-V	2	Moderate	22-Jan-14
88	50	76	178	Winter	Veg	Business	G	Vata	3-A	2	Moderate	22-Jan-14
89	44	74	172	Winter	Nonveg	Business	M	Pitta	5-V	3	Severe	24-Jan-14
90	48	72	165	Winter	Veg	Service	M	Pitta	4-A	3	Severe	27-Jan-14
91	47	80	170	Winter	Veg	Service	G	Pitta	4-A	3	Severe	27-Jan-14
92	26	60	170	Winter	Nonveg	Service	G	Vata	5-V	3	Severe	27-Jan-14
93	45	79	175	Winter	Veg	Service	G	Kapha	5-A	3	Severe	28-Jan-14
94	48	75	178	Winter	Nonveg	Business	G	Pitta	6	3	Severe	29-Jan-14
95	49	76	170	Winter	Veg	Service	PG	Pitta	4-V	2	Moderate	29-Jan-14
96	34	65	165	Winter	Veg	Business	G	Pitta	4-A	3	Severe	30-Jan-14
97	33	68	163	Winter	Veg	Service	G	Kapha	3-A	2	Moderate	31-Jan-14
98	33	70	170	Winter	Veg	Business	G	Pitta	6	3	Severe	31-Jan-14
99	50	72	172	Spring	Veg	Business	G	Pitta	5-A	3	Severe	04-Feb-14
100	39	80	174	Spring	Veg	Business	G	Kapha	5-A	3	Severe	04-Feb-14
101	50	72	170	Spring	Nonveg	Service	G	Pitta	6	3	Severe	07-Feb-14
102	50	72	171	Spring	Nonveg	Business	12th fail	Pitta	4-A	3	Severe	07-Feb-14
103	50	76	178	Spring	Nonveg	Business	M	Pitta	6	3	Severe	17-Feb-14
104	50	71	170	Spring	Veg	Business	G	Pitta	4-A	3	Severe	17-Feb-14
105	45	80	171	Spring	Veg	Business	G	Kapha	6	3	Severe	17-Feb-14
106	50	87	173	Spring	Veg	Business	G	Kapha	5-V	3	Severe	17-Feb-14
107	50	75	180	Spring	Veg	Business	G	Pitta	6	3	Severe	19-Feb-14
108	44	70	173	Spring	Veg	Business	12th Pass	Vata	5-V	3	Severe	19-Feb-14
109	45	75	180	Spring	Veg	Business	G	Vata	4-A	3	Severe	21-Feb-14
110	45	74	174	Spring	Veg	Business	M	Pitta	4-A	3	Severe	21-Feb-14
111	44	73	171	Spring	Nonveg	Business	12th Pass	Pitta	5-A	3	Severe	21-Feb-14
112	50	75	173	Spring	Veg	Business	G	Pitta	7	3	Severe	24-Feb-14
113	50	85	170	Spring	Veg	Business	12th Pass	Vata	6	3	Severe	24-Feb-14
114	49	69	171	Spring	Nonveg	Business	12th Pass	Vata	3-A	2	Moderate	24-Feb-14
115	50	68	170	Spring	Veg	Service	12th Pass	Pitta	6	3	Severe	24-Feb-14
116	49	78	181	Spring	Veg	Business	G	Vata	7	3	Severe	26-Feb-14
117	50	75	179	Spring	Veg	Business	G	Vata	7	3	Severe	26-Feb-14
118	40	74	171	Spring	Veg	Business	G	Pitta	5-V	3	Severe	26-Feb-14
119	27	69	170	Spring	Veg	Service	M	Pitta	3-A	2	Moderate	26-Feb-14
120	30	68	171	Spring	Veg	Service	PG	Pitta	4-A	3	Severe	28-Feb-14
121	50	79	170	Spring	Nonveg	Business	12th Pass	Pitta	6	3	Severe	28-Feb-14
122	49	76	173	Spring	Nonveg	Service	G	Pitta	6	3	Severe	28-Feb-14
123	33	68	170	Spring	Veg	Business	12th Pass	Pitta	3-A	2	Moderate	03-Mar-14
124	32	78	172	Spring	Nonveg	Service	PG	Vata	7	3	Severe	03-Mar-14
125	50	60	170	Spring	Veg	Business	G	Pitta	7	3	Severe	07-Mar-14
126	49	76	172	Spring	Veg	Business	12th Pass	Vata	5-A	3	Severe	07-Mar-14
127	50	86	174	Spring	Nonveg	Business	12th Pass	Pitta	6	3	Severe	20-Mar-14
128	42	69	171	Spring	Nonveg	Service	PG	Pitta	5-A	3	Severe	20-Mar-14
129	48	70	172	Spring	Nonveg	Business	G	Pitta	6	3	Severe	20-Mar-14
130	47	70	170	Spring	Veg	Service	G	Pitta	6	3	Severe	20-Mar-14
131	43	74	171	Spring	Nonveg	Service	PG	Pitta	4-A	3	Severe	20-Mar-14
132	34	71	169	Spring	Veg	Business	G	Pitta	3-A	2	Moderate	21-Mar-14
133	33	71	171	Spring	Veg	Business	G	Vata	6	3	Severe	21-Mar-14
134	42	78	176	Spring	Veg	Service	12th Pass	Pitta	5-V	3	Severe	24-Mar-14
135	41	81	180	Spring	Nonveg	Service	12th Pass	Vata	3-A	2	Moderate	24-Mar-14
136	34	74	173	Spring	Veg	Service	G	Vata	3-A	2	Moderate	24-Mar-14
137	40	78	172	Spring	Veg	Service	G	Pitta	6	3	Severe	24-Mar-14
138	41	79	170	Spring	Veg	Service	G	Pitta	6	3	Severe	25-Mar-14
139	43	70	169	Spring	Veg	Service	M	Pitta	7	3	Severe	25-Mar-14
140	48	72	171	Spring	Veg	Service	G	Pitta	3-A	2	Moderate	26-Mar-14
141	50	73	171	Spring	Veg	Service	G	Pitta	5-A	3	Severe	26-Mar-14
142	49	80	174	Spring	Veg	Business	12th Pass	Pitta	6	3	Severe	26-Mar-13
143	39	76	174	Spring	Veg	Business	12th Pass	Vata	3-A	2	Moderate	27-Mar-14
144	50	69	168	Spring	Veg	Service	12th Pass	Pitta	4-V	2	Moderate	27-Mar-14
145	46	80	176	Spring	Veg	Business	G	Pitta	5-A	3	Severe	27-Mar-14
146	49	69	171	Spring	Veg	Service	G	Vata	3-A	2	Moderate	28-Mar-14
147	36	75	172	Spring	Nonveg	Business	G	Pitta	5-A	3	Severe	28-Mar-14
148	43	71	170	Spring	Veg	Service	G	Vata	5-V	3	Severe	30-Mar-14
149	50	72	170	Spring	Veg	Service	G	Pitta	3-A	2	Moderate	30-Mar-14

150	27	71	172	Spring	Veg	Service	PG	Pitta	6	3	Severe	30-Mar-14
151	49	74	172	Spring	Veg	Service	G	Pitta	5-V	3	Severe	31-Mar-14
152	50	72	170	Spring	Veg	Business	G	Vata	7	3	Severe	31-Mar-14
153	32	80	175	Spring	Veg	Service	G	Vata	3-A	2	Moderate	31-Mar-14
154	50	78	172	Spring	Nonveg	Business	G	Pitta	6	3	Severe	31-Mar-14
155	48	78	172	Summer	Veg	Service	12th Pass	Vata	4-A	3	Severe	02-Apr-14
156	48	71	172	Summer	Veg	Business	G	Vata	6	3	Severe	02-Apr-14
157	38	74	171	Summer	Nonveg	Service	PG	Pitta	4-A	3	Severe	03-Apr-14
158	32	72	172	Summer	Veg	Service	PG	Pitta	4-A	3	Severe	03-Apr-14
159	42	75	171	Summer	Veg	Service	G	Pitta	7	3	Severe	04-Apr-14
160	33	70	172	Summer	Veg	Service	G	Kapha	3-V	2	Moderate	04-Apr-14
161	44	82	171	Summer	Veg	Business	12th Pass	Pitta	4-V	2	Moderate	04-Apr-14
162	34	74	170	Summer	Veg	Service	G	Vata	4-A	3	Severe	04-Apr-14
163	32	75	170	Summer	Veg	Service	G	Vata	5-V	3	Severe	09-Apr-14
164	39	77	171	Summer	Veg	Business	G	Vata	3-A	2	Moderate	09-Apr-14
165	50	68	170	Summer	Nonveg	Service	12th Pass	Pitta	3-A	2	Moderate	09-Apr-14
166	46	70	171	Summer	Nonveg	Business	G	Pitta	4-V	2	Moderate	10-Apr-14
167	46	74	170	Summer	Veg	Business	G	Pitta	6	3	Severe	11-Apr-14
168	47	73	172	Summer	Veg	Business	G	Pitta	4-A	3	Severe	11-Apr-14
169	34	73	171	Summer	Veg	Business	G	Kapha	3-V	2	Moderate	11-Apr-14
170	50	76	174	Summer	Nonveg	Service	G	Pitta	7	3	Severe	11-Apr-14
171	35	70	169	Summer	Nonveg	Service	12th Pass	Vata	5-A	3	Severe	11-Apr-14
172	34	73	172	Summer	Veg	Service	G	Pitta	5-V	3	Severe	11-Apr-14
173	50	79	176	Summer	Veg	Service	G	Vata	7	3	Severe	23-Apr-14
174	49	73	170	Summer	Veg	Service	12th Pass	Pitta	5-V	3	Severe	25-Apr-14
175	50	80	172	Summer	Nonveg	Business	12th Pass	Pitta	5-V	3	Severe	25-Apr-14
176	50	76	171	Summer	Nonveg	Business	12th Pass	Pitta	6	3	Severe	25-Apr-14
177	43	67	169	Summer	Veg	Service	G	Pitta	4-A	3	Severe	28-Apr-14
178	46	69	168	Summer	Veg	Business	G	Vata	5-A	3	Severe	28-Apr-14
179	50	82	172	Summer	Veg	Business	G	Pitta	7	3	Severe	05-May-14
180	33	65	167	Summer	Veg	Business	G	Pitta	4-V	2	Moderate	05-May-14
181	50	88	172	Summer	Nonveg	Business	M	Pitta	7	3	Severe	05-May-14
182	49	75	171	Summer	Veg	Business	8th Passs	Pitta	7	3	Severe	05-May-14
183	48	70	170	Summer	Veg	Business	M	Pitta	7	3	Severe	07-May-14
184	41	80	180	Summer	Nonveg	Service	PG	Vata	4-V	2	Moderate	07-May-14
185	40	81	172	Summer	Nonveg	Business	G	Pitta	6	3	Severe	07-May-14
186	44	77	171	Summer	Veg	Business	G	Vata	5-A	3	Severe	07-May-14
187	49	71	170	Summer	Veg	Business	G	Pitta	5-V	3	Severe	07-May-14
188	50	75	172	Summer	Veg	Business	G	Pitta	7	3	Severe	16-May-14
189	27	71	171	Summer	Nonveg	Business	G	Pitta	4-A	3	Severe	19-May-14
190	50	70	174	Summer	Veg	Service	G	Vata	5-V	3	Severe	20-May-14
191	44	70	170	Summer	Veg	Service	G	Pitta	4-A	3	Severe	20-May-14
192	50	75	165	Summer	Veg	Service	9th Pass	Pitta	4-V	2	Moderate	20-May-14
193	50	60	155	Summer	Veg	Service	5th Pass	Pitta	6	3	Severe	22-May-14
194	48	78	170	Summer	Veg	Business	G	Pitta	4-A	3	Severe	22-May-14
195	46	74	172	Summer	Veg	Business	G	Kapha	5-A	3	Severe	26-May-14
196	50	69	168	Summer	Veg	Business	G	Vata	7	3	Severe	27-May-14
197	42	72	160	Summer	Veg	Business	G	Pitta	4-A	3	Severe	30-May-14
198	47	73	172	Summer	Veg	Service	M	Pitta	4-A	3	Severe	30-May-14
199	48	80	170	Summer	Veg	Business	M	Vata	5-V	3	Severe	02-Jun-14
200	40	71	172	Summer	Nonveg	Service	M	Pitta	3-A	2	Moderate	02-Jun-14
201	46	74	168	Summer	Veg	Service	10th Pass	Pitta	6	3	Severe	02-Jun-14
202	49	72	173	Summer	Nonveg	Business	G	Vata	4-V	2	Moderate	02-Jun-14
203	33	79	176	Summer	Veg	Business	G	Pitta	5-A	3	Severe	02-Jun-14
204	50	65	165	Summer	Nonveg	Business	12th Pass	Vata	5-A	3	Severe	04-Jun-14
205	40	75	168	Summer	Nonveg	Business	G	Pitta	3-V	2	Moderate	04-Jun-14
206	41	83	172	Summer	Veg	Business	G	Pitta	6	3	Severe	04-Jun-14
207	34	74	171	Summer	Veg	Service	G	Vata	5-A	3	Severe	05-Jun-14
208	46	75	173	Summer	Veg	Business	G	Pitta	6	3	Severe	05-Jun-14
209	47	74	173	Summer	Veg	Business	G	Pitta	6	3	Severe	12-Jun-14
210	50	69	171	Summer	Veg	Business	12th Pass	Pitta	3-A	2	Moderate	13-Jun-14
211	50	70	167	Summer	Nonveg	Service	8th Passs	Pitta	5-A	3	Severe	14-Jun-14
212	40	50	164	Summer	Veg	Business	G	Pitta	3-V	2	Moderate	14-Jun-14
213	44	81	171	Summer	Nonveg	Business	12th Pass	Pitta	6	3	Severe	14-Jun-14
214	33	72	170	Summer	Nonveg	Service	G	Pitta	7	3	Severe	14-Jun-14
215	41	72	170	Summer	Nonveg	Service	G	Vata	5-V	3	Severe	18-Jun-14
216	30	73	175	Summer	Nonveg	Business	12th	Vata	3-V	2	Moderate	18-Jun-14
217	34	73	172	Summer	Nonveg	Service	G	Kapha	4-A	3	Severe	18-Jun-14
218	33	83	174	Summer	Nonveg	Service	PG	Vata	4-A	3	Severe	21-Jun-14
219	34	74	170	Summer	Veg	Service	G	Pitta	6	3	Severe	25-Jun-14
220	50	65	165	Summer	Veg	Business	M	Pitta	4-A	3	Severe	28-Jun-14
221	50	80	174	Rainy	Nonveg	Business	M	Kapha	3-A	2	Moderate	21-Jul-14
222	39	75	173	Rainy	Nonveg	Business	8th Passs	Pitta	7	3	Severe	21-Jul-14
223	34	72	169	Rainy	Veg	Service	PG	Vata	7	3	Severe	21-Jul-14
224	50	82	171	Rainy	Veg	Business	6th Pass	Pitta	7	3	Severe	22-Jul-14
225	40	78	171	Rainy	Veg	Business	8th Passs	Pitta	6	3	Severe	24-Jul-14
226	42	78	173	Rainy	Nonveg	Business	7th Pass	Pitta	5-V	3	Severe	28-Jul-14

227	35	71	173	Rainy	Nonveg	Service	G	Pitta	4-A	3	Severe	28-Jul-14
228	43	77	170	Rainy	Veg	Service	M	Pitta	3-A	2	Moderate	30-Jul-14
229	39	71	172	Rainy	Nonveg	Service	G	Vata	5-V	3	Severe	30-Jul-14
230	44	76	173	Rainy	Veg	Service	8th Passs	Vata	3-A	2	Moderate	30-Jul-14
231	48	74	170	Rainy	Veg	Business	G	Pitta	5-V	3	Severe	01-Aug-14
232	34	76	168	Rainy	Veg	Service	PG	Vata	6	3	Severe	13-Aug-14
233	45	64	171	Rainy	Nonveg	Service	12th Pass	Vata	4-A	3	Severe	27-Aug-14
234	32	69	169	Rainy	Veg	Service	G	Pitta	4-A	3	Severe	27-Aug-14
235	23	65	173	Rainy	Veg	Student	G	Vata	3-A	2	Moderate	27-Aug-14
236	47	71	174	Rainy	Veg	Service	12th Pass	Pitta	5-V	3	Severe	03-Sep-14
237	42	76	173	Rainy	Nonveg	Service	G	Vata	5-V	3	Severe	03-Sep-14
238	41	74	174	Rainy	Veg	Service	12th Pass	Vata	6	3	Severe	03-Sep-14
239	43	70	172	Rainy	Veg	Business	G	Pitta	4-A	3	Severe	18-Sep-14
240	43	71	170	Rainy	Nonveg	Service	G	Pitta	6	3	Severe	18-Sep-14

An observational studyof KHALITYA in different DEHA PRAKRITI with the help of Hamilton Norwood Scale

Master Sheet (Chart) of *Vata Prakriti* (Annexure-2)

Sr. No.	Sr. No. In performa	Age in years	Weight In Kg	Height in cm	Season	Diet	Occupation	Education Level	Deha Prakriti	Norwood Type Stage	Parameter stage	Parameters of hair loss	Date
1	2	40	60	160	Rainy	Veg	Business	G	Vata	5- A	3	Severe	15-Jul-13
2	10	49	70	167	Rainy	Veg	Business	M	Vata	3-A	2	Moderate	30-Aug-13
3	13	48	73	173	Rainy	Veg	Business	G	Vata	5-A	3	Severe	10-Sep-13
4	15	42	79	172	Rainy	Veg	Service	PG	Vata	4-A	3	Severe	16-Sep-13
5	20	42	70	173	Autumn	Veg	Service	PG	Vata	7	3	Severe	04-Oct-13
6	24	50	75	170	Autumn	Veg	Business	G	Vata	4-A	3	Severe	07-Oct-13
7	29	50	65	154	Autumn	Veg	Service	G	Vata	3-A	2	Moderate	19-Oct-13
8	38	48	76	170	Autumn	Veg	Business	G	Vata	3-A	2	Moderate	04-Nov-13
9	39	50	74	168	Autumn	Veg	Business	G	Vata	7	3	Severe	04-Nov-13
10	42	50	68	172	Autumn	Veg	Business	5th Pass	Vata	7	3	Severe	09-Nov-13
11	43	50	76	168	Autumn	Nonveg	Service	M	Vata	4-A	3	Severe	18/Nov/13
12	45	47	70	168	Autumn	Nonveg	Service	M	Vata	6	3	Severe	26/Nov/13
13	49	41	54	165	Winter	Nonveg	Service	G	Vata	3-A	2	Moderate	02-Dec-13
14	50	36	85	158	Winter	Veg	Service	8th	Vata	4-V	2	Moderate	03-Dec-13
15	62	42	65	170	Winter	Nonveg	Business	G	Vata	5-A	3	Severe	25-Dec-13
16	68	22	44	153	Winter	Veg	Student	UG	Vata	3-A	2	Moderate	26-Dec-13
17	70	50	71	171	Winter	Nonveg	Business	G	Vata	6	3	Severe	01-Jan-14
18	75	28	71	174	Winter	Veg	Service	12th Pass	Vata	3-A	2	Moderate	07/Jan/14
19	85	50	65	165	Winter	Veg	Service	M	Vata	7	3	Severe	21-Jan-14
20	86	50	70	172	Winter	Nonveg	Service	M	Vata	7	3	Severe	22-Jan-14
21	88	50	76	178	Winter	Veg	Business	G	Vata	3-A	2	Moderate	22-Jan-14
22	92	26	60	170	Winter	Nonveg	Service	G	Vata	5-V	3	Severe	27-Jan-14
23	108	44	70	173	Spring	Veg	Business	12th Pass	Vata	5-V	3	Severe	19-Feb-14
24	109	45	75	180	Spring	Veg	Business	G	Vata	4-A	3	Severe	21-Feb-14
25	113	50	85	170	Spring	Veg	Business	12th Pass	Vata	6	3	Severe	24-Feb-14
26	114	49	69	171	Spring	Nonveg	Business	12th Pass	Vata	3-A	2	Moderate	24-Feb-14
27	116	49	78	181	Spring	Veg	Business	G	Vata	7	3	Severe	26-Feb-14
28	117	50	75	179	Spring	Veg	Business	G	Vata	7	3	Severe	26-Feb-14
29	124	32	78	172	Spring	Nonveg	Service	PG	Vata	7	3	Severe	03-Mar-14
30	126	49	76	172	Spring	Veg	Business	12th Pass	Vata	5-A	3	Severe	07-Mar-14
31	133	33	71	171	Spring	Veg	Business	G	Vata	6	3	Severe	21-Mar-14
32	135	41	81	180	Spring	Nonveg	Service	12th Pass	Vata	3-A	2	Moderate	24-Mar-14
33	136	34	74	173	Spring	Veg	Service	G	Vata	3-A	2	Moderate	24-Mar-14
34	143	39	76	174	Spring	Veg	Business	12th Pass	Vata	3-A	2	Moderate	27-Mar-14
35	146	49	69	171	Spring	Veg	Service	G	Vata	3-A	2	Moderate	28-Mar-14
36	148	43	71	170	Spring	Veg	Service	G	Vata	5-V	3	Severe	30-Mar-14
37	152	50	72	170	Spring	Veg	Business	G	Vata	7	3	Severe	31-Mar-14
38	153	32	80	175	Spring	Veg	Service	G	Vata	3-A	2	Moderate	31-Mar-14
39	155	48	78	172	Summer	Veg	Service	12th Pass	Vata	4-A	3	Severe	02-Apr-14
40	156	48	71	172	Summer	Veg	Business	G	Vata	6	3	Severe	02-Apr-14
41	162	34	74	170	Summer	Veg	Service	G	Vata	4-A	3	Severe	04-Apr-14
42	163	32	75	170	Summer	Veg	Service	G	Vata	5-V	3	Severe	09-Apr-14
43	164	39	77	171	Summer	Veg	Business	G	Vata	3-A	2	Moderate	09-Apr-14
44	171	35	70	169	Summer	Nonveg	Service	12th Pass	Vata	5-A	3	Severe	11-Apr-14
45	173	50	79	176	Summer	Veg	Service	G	Vata	7	3	Severe	23-Apr-14
46	178	46	69	168	Summer	Veg	Business	G	Vata	5-A	3	Severe	28-Apr-14
47	184	41	80	180	Summer	Nonveg	Service	PG	Vata	4-V	2	Moderate	07-May-14
48	186	44	77	171	Summer	Veg	Business	G	Vata	5-A	3	Severe	07-May-14
49	190	50	70	174	Summer	Veg	Service	G	Vata	5-V	3	Severe	20-May-14
50	196	50	69	168	Summer	Veg	Business	G	Vata	7	3	Severe	27-May-14
51	199	48	80	170	Summer	Veg	Business	M	Vata	5-V	3	Severe	02-Jun-14
52	202	49	72	173	Summer	Nonveg	Business	G	Vata	4-V	2	Moderate	02-Jun-14
53	204	50	65	165	Summer	Nonveg	Business	12th Pass	Vata	5-A	3	Severe	04-Jun-14
54	207	34	74	171	Summer	Veg	Service	G	Vata	5-A	3	Severe	05-Jun-14
55	215	41	72	170	Summer	Nonveg	Service	G	Vata	5-V	3	Severe	18-Jun-14
56	216	30	73	175	Summer	Nonveg	Business	12th	Vata	3-V	2	Moderate	18-Jun-14
57	218	33	83	174	Summer	Nonveg	Service	PG	Vata	4-A	3	Severe	21-Jun-14
58	223	34	72	169	Rainy	Veg	Service	PG	Vata	7	3	Severe	21-Jul-14
59	229	39	71	172	Rainy	Nonveg	Service	G	Vata	5-V	3	Severe	30-Jul-14
60	230	44	76	173	Rainy	Veg	Service	8th Passs	Vata	3-A	2	Moderate	30-Jul-14
61	232	34	76	168	Rainy	Veg	Service	PG	Vata	6	3	Severe	13-Aug-14
62	233	45	64	171	Rainy	Nonveg	Service	12th Pass	Vata	4-A	3	Severe	27-Aug-14
63	235	23	65	173	Rainy	Veg	Student	G	Vata	3-A	2	Moderate	27-Aug-14
64	237	42	76	173	Rainy	Nonveg	Service	G	Vata	5-V	3	Severe	03-Sep-14
65	238	41	74	174	Rainy	Veg	Service	12th Pass	Vata	6	3	Severe	03-Sep-14

Sr. No.	Sr. No. In performa	Age in years	Weight In Kg	Height in cm	Season	Diet	Occupation	Education Level	Deha Prakriti	Norwood Type Stage	Parameter stage	Parameters of hair loss	Date
												An observational study of KHALITYA in different DEHA PRAKRITI with the help of Hamilton Norwood Scale	
												Master Sheet (Chart) of *Pitta Prakriti* (Annexure-3)	
1	1	44	64	154	Rainy	Nonveg	Teacher	PG	Pitta	7	3	Severe	04-Jul-13
2	3	49	75	169	Rainy	Veg	Service	G	Pitta	5-A	3	Severe	15-Jul-13
3	4	38	70	173	Rainy	Nonveg	Business	8 th pass	Pitta	3-A	2	Moderate	15-Jul-13
4	5	50	70	174	Rainy	Veg	Service	G	Pitta	6	3	Severe	08-Aug-13
5	6	42	72	172	Rainy	Veg	Business	G	Pitta	3-A	2	Moderate	15-Aug-13
6	7	50	70	170	Rainy	Veg	Service	M	Pitta	6	3	Severe	22-Aug-13
7	8	48	71	170	Rainy	Veg	Business	G	Pitta	7	3	Severe	27-Aug-13
8	9	49	72	177	Rainy	Nonveg	Business	G	Pitta	4-A	3	Severe	27-Aug-13
9	11	50	71	165	Rainy	Veg	Service	G	Pitta	7	3	Severe	03-Sep-13
10	12	34	72	172	Rainy	Nonveg	Service	G	Pitta	5-V	3	Severe	06-Sep-13
11	14	49	75	172	Rainy	Veg	Business	G	Pitta	3-A	2	Moderate	12-Sep-13
12	16	43	75	170	Rainy	Veg	Service	PG	Pitta	4-A	3	Severe	23-Sep-13
13	17	40	70	175	Rainy	Veg	Service	G	Pitta	3-A	2	Moderate	26-Sep-13
14	18	44	76	170	Rainy	Veg	Service	PG	Pitta	5-V	3	Severe	30-Sep-13
15	19	50	76	170	Autumn	Veg	Business	G	Pitta	5-V	3	Severe	03-Oct-13
16	22	37	78	175	Autumn	Veg	Service	PG	Pitta	4-A	3	Severe	04-Oct-13
17	23	50	80	180	Autumn	Veg	Business	PG	Pitta	7	3	Severe	07-Oct-13
18	25	48	72	165	Autumn	Nonveg	Business	G	Pitta	5-V	3	Severe	08-Oct-13
19	26	34	65	165	Autumn	Veg	Service	G	Pitta	3-A	2	Moderate	08-Oct-13
20	30	50	73	175	Autumn	Veg	Business	G	Pitta	4-A	3	Severe	24/Oct/13
21	31	49	75	165	Autumn	Veg	Business	G	Pitta	3-A	2	Moderate	26/Oct/13
22	32	49	76	176	Autumn	Veg	Business	G	Pitta	6	3	Severe	30/Oct/13
23	34	48	75	176	Autumn	Veg	Business	G	Pitta	4-A	3	Severe	01-Nov-13
24	35	42	73	174	Autumn	Veg	Business	G	Pitta	4-V	2	Moderate	02-Nov-13
25	36	49	76	169	Autumn	Veg	Business	G	Pitta	5-A	3	Severe	02-Nov-13
26	37	45	75	174	Autumn	Veg	Business	G	Pitta	7	3	Severe	03-Nov-13
27	40	50	76	174	Autumn	Veg	Farming	M	Pitta	7	3	Severe	04-Nov-13
28	41	48	74	170	Autumn	Veg	Farming	M	Pitta	3-A	2	Moderate	05-Nov-13
29	46	48	62	168	Autumn	Veg	Service	G	Pitta	3-A	2	Moderate	26/Nov/13
30	47	40	60	165	Autumn	Veg	Service	PG	Pitta	3-A	2	Moderate	26/Nov/13
31	48	50	62	153	Autumn	Nonveg	Service	M	Pitta	3-A	2	Moderate	26/Nov/13
32	51	41	74	168	Winter	Veg	Service	PG	Pitta	4-A	3	Severe	05-Dec-13
33	53	32	68	172	Winter	Nonveg	Business	G	Pitta	3-A	2	Moderate	16-Dec-13
34	55	32	70	170	Winter	Veg	Business	PG	Pitta	7	3	Severe	17-Dec-13
35	56	42	76	175	Winter	Veg	Business	G	Pitta	3-A	2	Moderate	20-Dec-13
36	57	48	70	170	Winter	Veg	Service	PG	Pitta	3-A	2	Moderate	21-Dec-13
37	58	34	78	176	Winter	Veg	Service	PG	Pitta	4-A	3	Severe	23-Dec-13
38	60	34	72	170	Winter	Veg	Service	G	Pitta	3-A	2	Moderate	24-Dec-13
39	63	45	76	173	Winter	Veg	Business	M	Pitta	5-A	3	Severe	25-Dec-13
40	64	35	58	158	Winter	Veg	Service	G	Pitta	7	3	Severe	26-Dec-13
41	65	22	40	150	Winter	Veg	Student	UG	Pitta	3-A	2	Moderate	26-Dec-13
42	66	35	55	165	Winter	Nonveg	Service	9th pass	Pitta	3-A	2	Moderate	26-Dec-13
43	67	21	65	165	Winter	Veg	Student	UG	Pitta	3-A	2	Moderate	26-Dec-13
44	69	49	74	175	Winter	Veg	Business	G	Pitta	7	3	Severe	01-Jan-14
45	71	33	69	170	Winter	Nonveg	Business	G	Pitta	6	3	Severe	01-Jan-14
46	72	44	72	171	Winter	Nonveg	Business	G	Pitta	3-A	2	Moderate	04/Jan/14
47	74	30	69	171	Winter	Veg	Business	G	Pitta	4-A	3	Severe	07/Jan/14
48	77	36	72	172	Winter	Veg	Business	PG	Pitta	3-A	2	Moderate	08/Jan/14
49	78	26	69	170	Winter	Veg	Service	G	Pitta	5-V	3	Severe	10/Jan/14
50	80	50	72	172	Winter	Veg	Business	12th Pass	Pitta	7	3	Severe	13-Jan-14
51	81	40	69	178	Winter	Nonveg	Service	PG	Pitta	6	3	Severe	18-Jan-14
52	82	30	66	172	Winter	Veg	Service	PG	Pitta	4-V	2	Moderate	18-Jan-14
53	83	48	73	170	Winter	Veg	Service	G	Pitta	3-A	2	Moderate	20-Jan-14
54	84	50	60	168	Winter	Veg	Service	M	Pitta	4-A	3	Severe	20-Jan-14
55	87	42	71	170	Winter	Veg	Service	G	Pitta	4-V	2	Moderate	22-Jan-14
56	89	44	74	172	Winter	Nonveg	Business	M	Pitta	5-V	3	Severe	24-Jan-14
57	90	48	72	165	Winter	Veg	Service	M	Pitta	4-A	3	Severe	27-Jan-14
58	91	47	80	170	Winter	Veg	Service	G	Pitta	4-A	3	Severe	27-Jan-14
59	94	48	75	178	Winter	Nonveg	Business	G	Pitta	6	3	Severe	29-Jan-14
60	95	49	76	170	Winter	Veg	Service	PG	Pitta	4-V	2	Moderate	29-Jan-14
61	96	34	65	165	Winter	Veg	Business	G	Pitta	4-A	3	Severe	30-Jan-14
62	98	33	70	170	Winter	Veg	Business	G	Pitta	6	3	Severe	31-Jan-14
63	99	50	72	172	Spring	Veg	Business	G	Pitta	5-A	3	Severe	04-Feb-14
64	101	50	72	170	Spring	Nonveg	Service	G	Pitta	6	3	Severe	07-Feb-14
65	102	50	72	171	Spring	Nonveg	Business	12th fail	Pitta	4-A	3	Severe	07-Feb-14
66	103	50	76	178	Spring	Nonveg	Business	M	Pitta	6	3	Severe	17-Feb-14
67	104	50	71	170	Spring	Veg	Business	G	Pitta	4-A	3	Severe	17-Feb-14
68	107	50	75	180	Spring	Veg	Business	G	Pitta	6	3	Severe	19-Feb-14
69	110	45	74	174	Spring	Veg	Business	M	Pitta	4-A	3	Severe	21-Feb-14
70	111	44	73	171	Spring	Nonveg	Business	12th Pass	Pitta	5-A	3	Severe	21-Feb-14

71	112	50	75	173	Spring	Veg	Business	G	Pitta	7	3	Severe	24-Feb-14
72	115	50	68	170	Spring	Veg	Service	12th Pass	Pitta	6	3	Severe	24-Feb-14
73	118	40	74	171	Spring	Veg	Business	G	Pitta	5-V	3	Severe	26-Feb-14
74	119	27	69	170	Spring	Veg	Service	M	Pitta	3-A	2	Moderate	26-Feb-14
75	120	30	68	171	Spring	Veg	Service	PG	Pitta	4-A	3	Severe	28-Feb-14
76	121	50	79	170	Spring	Nonveg	Business	12th Pass	Pitta	6	3	Severe	28-Feb-14
77	122	49	76	173	Spring	Nonveg	Service	G	Pitta	6	3	Severe	28-Feb-14
78	123	33	68	170	Spring	Veg	Business	12th Pass	Pitta	3-A	2	Moderate	03-Mar-14
79	125	50	60	170	Spring	Veg	Business	G	Pitta	7	3	Severe	07-Mar-14
80	127	50	86	174	Spring	Nonveg	Business	12th Pass	Pitta	6	3	Severe	20-Mar-14
81	128	42	69	171	Spring	Nonveg	Service	PG	Pitta	5-A	3	Severe	20-Mar-14
82	129	48	70	172	Spring	Nonveg	Business	G	Pitta	6	3	Severe	20-Mar-14
83	130	47	70	170	Spring	Veg	Service	G	Pitta	6	3	Severe	20-Mar-14
84	131	43	74	171	Spring	Nonveg	Service	PG	Pitta	4-A	3	Severe	20-Mar-14
85	132	34	71	169	Spring	Veg	Business	G	Pitta	3-A	2	Moderate	21-Mar-14
86	134	42	78	176	Spring	Veg	Service	12th Pass	Pitta	5-V	3	Severe	24-Mar-14
87	137	40	78	172	Spring	Veg	Service	G	Pitta	6	3	Severe	24-Mar-14
88	138	41	79	170	Spring	Veg	Service	G	Pitta	6	3	Severe	25-Mar-14
89	139	43	70	169	Spring	Veg	Service	M	Pitta	7	3	Severe	25-Mar-14
90	140	48	72	171	Spring	Veg	Service	G	Pitta	3-A	2	Moderate	26-Mar-14
91	141	50	73	171	Spring	Veg	Service	G	Pitta	5-A	3	Severe	26-Mar-14
92	142	49	80	174	Spring	Veg	Business	12th Pass	Pitta	6	3	Severe	26-Mar-13
93	144	50	69	168	Spring	Veg	Service	12th Pass	Pitta	4-V	2	Moderate	27-Mar-14
94	145	46	80	176	Spring	Veg	Business	G	Pitta	5-A	3	Severe	27-Mar-14
95	147	36	75	172	Spring	Nonveg	Business	G	Pitta	5-A	3	Severe	28-Mar-14
96	149	50	72	170	Spring	Veg	Service	G	Pitta	3-A	2	Moderate	30-Mar-14
97	150	27	71	172	Spring	Veg	Service	PG	Pitta	6	3	Severe	30-Mar-14
98	151	49	74	172	Spring	Veg	Service	G	Pitta	5-V	3	Severe	31-Mar-14
99	154	50	78	172	Spring	Nonveg	Business	G	Pitta	6	3	Severe	31-Mar-14
100	157	38	74	171	Summer	Nonveg	Service	PG	Pitta	4-A	3	Severe	03-Apr-14
101	158	32	72	172	Summer	Veg	Service	PG	Pitta	4-A	3	Severe	03-Apr-14
102	159	42	75	171	Summer	Veg	Service	G	Pitta	7	3	Severe	04-Apr-14
103	161	44	82	171	Summer	Veg	Business	12th Pass	Pitta	4-V	2	Moderate	04-Apr-14
104	165	50	68	170	Summer	Nonveg	Service	12th Pass	Pitta	3-A	2	Moderate	09-Apr-14
105	166	46	70	171	Summer	Nonveg	Business	G	Pitta	4-V	2	Moderate	10-Apr-14
106	167	46	74	170	Summer	Veg	Business	G	Pitta	6	3	Severe	11-Apr-14
107	168	47	73	172	Summer	Veg	Business	G	Pitta	4-A	3	Severe	11-Apr-14
108	170	50	76	174	Summer	Nonveg	Service	G	Pitta	7	3	Severe	11-Apr-14
109	172	34	73	172	Summer	Veg	Service	G	Pitta	5-V	3	Severe	11-Apr-14
110	174	49	73	170	Summer	Veg	Service	12th Pass	Pitta	5-V	3	Severe	25-Apr-14
111	175	50	80	172	Summer	Nonveg	Business	12th Pass	Pitta	5-V	3	Severe	25-Apr-14
112	176	50	76	171	Summer	Nonveg	Business	12th Pass	Pitta	6	3	Severe	25-Apr-14
113	177	43	67	169	Summer	Veg	Service	G	Pitta	4-A	3	Severe	28-Apr-14
114	179	50	82	172	Summer	Veg	Business	G	Pitta	7	3	Severe	05-May-14
115	180	33	65	167	Summer	Veg	Business	G	Pitta	4-V	2	Moderate	05-May-14
116	181	50	88	172	Summer	Nonveg	Business	M	Pitta	7	3	Severe	05-May-14
117	182	49	75	171	Summer	Veg	Business	8th Passs	Pitta	7	3	Severe	05-May-14
118	183	48	70	170	Summer	Veg	Business	M	Pitta	7	3	Severe	07-May-14
119	185	40	81	172	Summer	Nonveg	Business	G	Pitta	6	3	Severe	07-May-14
120	187	49	71	170	Summer	Veg	Business	G	Pitta	5-V	3	Severe	07-May-14
121	188	50	75	172	Summer	Veg	Business	G	Pitta	7	3	Severe	16-May-14
122	189	27	71	171	Summer	Nonveg	Business	G	Pitta	4-A	3	Severe	19-May-14
123	191	44	70	170	Summer	Veg	Service	G	Pitta	4-A	3	Severe	20-May-14
124	192	50	75	165	Summer	Veg	Service	9th Pass	Pitta	4-V	2	Moderate	20-May-14
125	193	50	60	155	Summer	Veg	Service	5th Pass	Pitta	6	3	Severe	22-May-14
126	194	48	78	170	Summer	Veg	Business	G	Pitta	4-A	3	Severe	22-May-14
127	197	42	72	160	Summer	Veg	Business	G	Pitta	4-A	3	Severe	30-May-14
128	198	47	73	172	Summer	Veg	Service	M	Pitta	4-A	3	Severe	30-May-14
129	200	40	71	172	Summer	Nonveg	Service	M	Pitta	3-A	2	Moderate	02-Jun-14
130	201	46	74	168	Summer	Veg	Service	10th Pass	Pitta	6	3	Severe	02-Jun-14
131	203	33	79	176	Summer	Veg	Business	G	Pitta	5-A	3	Severe	02-Jun-14
132	205	40	75	168	Summer	Nonveg	Business	G	Pitta	3-V	2	Moderate	04-Jun-14
133	206	41	83	172	Summer	Veg	Business	G	Pitta	6	3	Severe	04-Jun-14
134	208	46	75	173	Summer	Veg	Business	G	Pitta	6	3	Severe	05-Jun-14
135	209	47	74	173	Summer	Veg	Business	G	Pitta	6	3	Severe	12-Jun-14
136	210	50	69	171	Summer	Veg	Business	12th Pass	Pitta	3-A	2	Moderate	13-Jun-14
137	211	50	70	167	Summer	Nonveg	Service	8th Passs	Pitta	5-A	3	Severe	14-Jun-14
138	212	40	50	164	Summer	Veg	Business	G	Pitta	3-V	2	Moderate	14-Jun-14
139	213	44	81	171	Summer	Nonveg	Business	12th Pass	Pitta	6	3	Severe	14-Jun-14
140	214	33	72	170	Summer	Nonveg	Service	G	Pitta	7	3	Severe	14-Jun-14
141	219	34	74	170	Summer	Veg	Service	G	Pitta	6	3	Severe	25-Jun-14
142	220	50	65	165	Summer	Veg	Business	M	Pitta	4-A	3	Severe	28-Jun-14
143	222	39	75	173	Rainy	Nonveg	Business	8th Passs	Pitta	7	3	Severe	21-Jul-14
144	224	50	82	171	Rainy	Veg	Business	6th Pass	Pitta	7	3	Severe	22-Jul-14
145	225	40	78	171	Rainy	Veg	Business	8th Passs	Pitta	6	3	Severe	24-Jul-14

146	226	42	78	173	Rainy	Nonveg	Business	7th Pass	Pitta	5-V	3	Severe	28-Jul-14
147	227	35	71	173	Rainy	Nonveg	Service	G	Pitta	4-A	3	Severe	28-Jul-14
148	228	43	77	170	Rainy	Veg	Service	M	Pitta	3-A	2	Moderate	30-Jul-14
149	231	48	74	170	Rainy	Veg	Business	G	Pitta	5-V	3	Severe	01-Aug-14
150	234	32	69	169	Rainy	Veg	Service	G	Pitta	4-A	3	Severe	27-Aug-14
151	236	47	71	174	Rainy	Veg	Service	12th Pass	Pitta	5-V	3	Severe	03-Sep-14
152	239	43	70	172	Rainy	Veg	Business	G	Pitta	4-A	3	Severe	18-Sep-14
153	240	43	71	170	Rainy	Nonveg	Service	G	Pitta	6	3	Severe	18-Sep-14

Sr. No.	Sr. No. In performa	Age in years	Weight In Kg	Height in cm	Season	Diet	Occupation	Education Level	Deha Prakriti	Norwood Type Stage	Parameter stage	Parameters of hair loss	Date
					An observational study of KHALITYA in different DEHA PRAKRITI with the help of Hamilton Norwood Scale									
					Master Sheet (Chart) of _Kapha Prakriti_ (Annexure-4)									
1	21	47	75	170	Autumn	Veg	Business	G	Kapha	7	3	Severe	04-Oct-13
2	27	50	76	172	Autumn	Veg	Service	G	Kapha	6	3	Severe	09-Oct-13
3	28	49	80	178	Autumn	Veg	Business	G	Kapha	5-V	3	Severe	18/Oct/13
4	33	50	70	162	Autumn	Veg	Business	G	Kapha	7	3	Severe	01-Nov-13
5	44	50	82	168	Autumn	Veg	Service	G	Kapha	3-A	2	Moderate	26/Nov/13
6	52	40	80	168	Winter	Veg	Service	PG	Kapha	3-A	2	Moderate	13-Dec-13
7	54	42	72	176	Winter	Nonveg	Business	G	Kapha	3-A	2	Moderate	17-Dec-13
8	59	40	75	174	Winter	Veg	Business	G	Kapha	3-A	2	Moderate	24-Dec-13
9	61	29	72	168	Winter	Nonveg	Service	G	Kapha	4-A	3	Severe	24-Dec-13
10	73	50	80	173	Winter	Veg	Business	G	Kapha	7	3	Severe	04/Jan/14
11	76	50	80	171	Winter	Veg	Business	G	Kapha	7	3	Severe	08/Jan/14
12	79	50	72	170	Winter	Nonveg	Business	G	Kapha	5-V	3	Severe	13-Jan-14
13	93	45	79	175	Winter	Veg	Service	G	Kapha	5-A	3	Severe	28-Jan-14
14	97	33	68	163	Winter	Veg	Service	G	Kapha	3-A	2	Moderate	31-Jan-14
15	100	39	80	174	Spring	Veg	Business	G	Kapha	5-A	3	Severe	04-Feb-14
16	105	45	80	171	Spring	Veg	Business	G	Kapha	6	3	Severe	17-Feb-14
17	106	50	87	173	Spring	Veg	Business	G	Kapha	5-V	3	Severe	17-Feb-14
18	160	33	70	172	Summer	Veg	Service	G	Kapha	3-V	2	Moderate	04-Apr-14
19	169	34	73	171	Summer	Veg	Business	G	Kapha	3-V	2	Moderate	11-Apr-14
20	195	46	74	172	Summer	Veg	Business	G	Kapha	5-A	3	Severe	26-May-14
21	217	34	73	172	Summer	Nonveg	Service	G	Kapha	4-A	2	Severe	18-Jun-14
22	221	50	80	174	Rainy	Nonveg	Business	M	Kapha	3-A	3	Moderate	21-Jul-14

An observational study of KHALITYA in different DEHA PRAKRITI with the help of Hamilton Norwood Scale

Master Sheet (Chart) Group- A (Annexure-5)

Sr. No.	Sr. No. in main Master chart	Age in years	Weight In Kg	Height in cm	Season	Diet	Occupation	Education Level	Deha Prakriti	Norwood Type Stage	Parameter Stage	Parameters of hair loss	Date
1	12	34	72	172	Rainy	Nonveg	Service	G	Pitta	5-V	3	Severe	06-Sep-13
2	26	34	65	165	Autumn	Veg	Service	G	Pitta	3-A	2	Moderate	08-Oct-13
3	53	32	68	172	Winter	Nonveg	Business	G	Pitta	3-A	2	Moderate	16-Dec-13
4	55	32	70	170	Winter	Veg	Business	PG	Pitta	7	3	Severe	17-Dec-13
5	58	34	78	176	Winter	Veg	Service	PG	Pitta	4-A	3	Severe	23-Dec-13
6	60	34	72	170	Winter	Veg	Service	G	Pitta	3-A	2	Moderate	24-Dec-13
7	61	29	72	168	Winter	Nonveg	Service	G	Kapha	4-A	3	Severe	24-Dec-13
8	65	22	40	150	Winter	Veg	Student	UG	Pitta	3-A	2	Moderate	26-Dec-13
9	67	21	65	165	Winter	Veg	Student	UG	Pitta	3-A	2	Moderate	26-Dec-13
10	68	22	44	153	Winter	Veg	Student	UG	Vata	3-A	2	Moderate	26-Dec-13
11	71	33	69	170	Winter	Nonveg	Business	G	Pitta	6	3	Severe	01-Jan-14
12	74	30	69	171	Winter	Veg	Business	G	Pitta	4-A	3	Severe	07/Jan/14
13	75	28	71	174	Winter	Veg	Service	12th Pass	Vata	3-A	2	Moderate	07/Jan/14
14	78	26	69	170	Winter	Veg	Service	G	Pitta	5-V	3	Severe	10/Jan/14
15	82	30	66	172	Winter	Veg	Service	PG	Pitta	4-V	2	Moderate	18-Jan-14
16	92	26	60	170	Winter	Nonveg	Service	G	Vata	5-V	3	Severe	27-Jan-14
17	96	34	65	165	Winter	Veg	Business	G	Pitta	4-A	3	Severe	30-Jan-14
18	97	33	68	163	Winter	Veg	Service	G	Kapha	3-A	2	Moderate	31-Jan-14
19	98	33	70	170	Winter	Veg	Business	G	Pitta	6	3	Severe	31-Jan-14
20	119	27	69	170	Spring	Veg	Service	M	Pitta	3-A	2	Moderate	26-Feb-14
21	120	30	68	171	Spring	Veg	Service	PG	Pitta	4-A	3	Severe	28-Feb-14
22	123	33	68	170	Spring	Veg	Business	12th Pass	Pitta	3-A	2	Moderate	03-Mar-14
23	124	32	78	172	Spring	Nonveg	Service	PG	Vata	7	3	Severe	03-Mar-14
24	132	34	71	169	Spring	Veg	Business	G	Pitta	3-A	2	Moderate	21-Mar-14
25	133	33	71	171	Spring	Veg	Business	G	Vata	6	3	Severe	21-Mar-14
26	136	34	74	173	Spring	Veg	Service	G	Vata	3-A	2	Moderate	24-Mar-14
27	150	27	71	172	Spring	Veg	Service	PG	Pitta	6	3	Severe	30-Mar-14
28	153	32	80	175	Spring	Veg	Service	G	Vata	3-A	2	Moderate	31-Mar-14
29	158	32	72	172	Summer	Veg	Service	PG	Pitta	4-A	3	Severe	03-Apr-14
30	160	33	70	172	Summer	Veg	Service	G	Kapha	3-V	2	Moderate	04-Apr-14
31	162	34	74	170	Summer	Veg	Service	G	Vata	4-A	3	Severe	04-Apr-14
32	163	32	75	170	Summer	Veg	Service	G	Vata	5-V	3	Severe	09-Apr-14
33	169	34	73	171	Summer	Veg	Business	G	Kapha	3-V	2	Moderate	11-Apr-14
34	172	34	73	172	Summer	Veg	Service	G	Pitta	5-V	3	Severe	11-Apr-14
35	180	33	65	167	Summer	Veg	Business	G	Pitta	4-V	2	Moderate	05-May-14
36	189	27	71	171	Summer	Nonveg	Business	G	Pitta	4-A	3	Severe	19-May-14
37	203	33	79	176	Summer	Veg	Business	G	Pitta	5-A	3	Severe	02-Jun-14
38	207	34	74	171	Summer	Veg	Service	G	Vata	5-A	3	Severe	05-Jun-14
39	214	33	72	170	Summer	Nonveg	Service	G	Pitta	7	3	Severe	14-Jun-14
40	216	30	73	175	Summer	Nonveg	Business	12th	Vata	3-V	2	Moderate	18-Jun-14
41	217	34	73	172	Summer	Nonveg	Service	G	Kapha	4-A	3	Severe	18-Jun-14
42	218	33	83	174	Summer	Nonveg	Service	PG	Vata	4-A	3	Severe	21-Jun-14
43	219	34	74	170	Summer	Veg	Service	G	Pitta	6	3	Severe	25-Jun-14
44	223	34	72	169	Rainy	Veg	Service	PG	Vata	7	3	Severe	21-Jul-14
45	232	34	76	168	Rainy	Veg	Service	PG	Vata	6	3	Severe	13-Aug-14
46	234	32	69	169	Rainy	Veg	Service	G	Pitta	4-A	3	Severe	27-Aug-14
47	235	23	65	173	Rainy	Veg	Student	G	Vata	3-A	2	Moderate	27-Aug-14

An observational study of KHALITYA in different DEHA PRAKRITI with the help of Hamilton Norwood Scale

Master Sheet (Chart) Group- B (Annexure-6)

Sr. No.	Sr. No. in main Master chart	Age in years	Weight In Kg	Height in cm	Season	Diet	Occupation	Education Level	Deha Prakriti	Norwood Type Stage	Parameter Stage	Parameters of hair loss	Date
1	1	44	64	154	Rainy	Nonveg	Teacher	PG	Pitta	7	3	Severe	04-Jul-13
2	2	40	60	160	Rainy	Veg	Business	G	Vata	5- A	3	Severe	15-Jul-13
3	3	49	75	169	Rainy	Veg	Service	G	Pitta	5-A	3	Severe	15-Jul-13
4	4	38	70	173	Rainy	Nonveg	Business	8 th pass	Pitta	3-A	2	Moderate	15-Jul-13
5	5	50	70	174	Rainy	Veg	Service	G	Pitta	6	3	Severe	08-Aug-13
6	6	42	72	172	Rainy	Veg	Business	G	Pitta	3-A	2	Moderate	15-Aug-13
7	7	50	70	170	Rainy	Veg	Service	M	Pitta	6	3	Severe	22-Aug-13
8	8	48	71	170	Rainy	Veg	Business	G	Pitta	7	3	Severe	27-Aug-13
9	9	49	72	177	Rainy	Nonveg	Business	G	Pitta	4-A	3	Severe	27-Aug-13
10	10	49	70	167	Rainy	Veg	Business	M	Vata	3-A	2	Moderate	30-Aug-13
11	11	50	71	165	Rainy	Veg	Service	G	Pitta	7	3	Severe	03-Sep-13
12	13	48	73	173	Rainy	Veg	Business	G	Vata	5-A	3	Severe	10-Sep-13
13	14	49	75	172	Rainy	Veg	Business	G	Pitta	3-A	2	Moderate	12-Sep-13
14	15	42	79	172	Rainy	Veg	Service	PG	Vata	4-A	3	Severe	16-Sep-13
15	16	43	75	170	Rainy	Veg	Service	PG	Pitta	4-A	3	Severe	23-Sep-13
16	17	40	70	175	Rainy	Veg	Service	G	Pitta	3-A	2	Moderate	26-Sep-13
17	18	44	76	170	Rainy	Veg	Service	PG	Pitta	5-V	3	Severe	30-Sep-13
18	19	50	76	170	Autumn	Veg	Business	G	Pitta	5-V	3	Severe	03-Oct-13
19	20	42	70	173	Autumn	Veg	Service	PG	Vata	7	3	Severe	04-Oct-13
20	21	47	75	170	Autumn	Veg	Business	G	Kapha	7	3	Severe	04-Oct-13
21	22	37	78	175	Autumn	Veg	Service	PG	Pitta	4-A	3	Severe	04-Oct-13
22	23	50	80	180	Autumn	Veg	Business	PG	Pitta	7	3	Severe	07-Oct-13
23	24	50	75	170	Autumn	Veg	Business	G	Vata	4-A	3	Severe	07-Oct-13
24	25	48	72	165	Autumn	Nonveg	Business	G	Pitta	5-V	3	Severe	08-Oct-13
25	27	50	76	172	Autumn	Veg	Service	G	Kapha	6	3	Severe	09-Oct-13
26	28	49	80	178	Autumn	Veg	Business	G	Kapha	5-V	3	Severe	18-Oct-13
27	29	50	65	154	Autumn	Veg	Service	G	Vata	3-A	2	Moderate	19-Oct-13
28	30	50	73	175	Autumn	Veg	Business	G	Pitta	4-A	3	Severe	24/Oct/13
29	31	49	75	165	Autumn	Veg	Business	G	Pitta	3-A	2	Moderate	26/Oct/13
30	32	49	76	176	Autumn	Veg	Business	G	Pitta	6	3	Severe	30/Oct/13
31	33	50	70	162	Autumn	Veg	Business	G	Kapha	7	3	Severe	01-Nov-13
32	34	48	75	176	Autumn	Veg	Business	G	Pitta	4-A	3	Severe	01-Nov-13
33	35	42	73	174	Autumn	Veg	Business	G	Pitta	4-V	2	Moderate	02-Nov-13
34	36	49	76	169	Autumn	Veg	Business	G	Pitta	5-A	3	Severe	02-Nov-13
35	37	45	75	174	Autumn	Veg	Business	G	Pitta	7	3	Severe	03-Nov-13
36	38	48	76	170	Autumn	Veg	Business	G	Vata	3-A	2	Moderate	04-Nov-13
37	39	50	74	168	Autumn	Veg	Business	G	Vata	7	3	Severe	04-Nov-13
38	40	50	76	174	Autumn	Veg	Farming	M	Pitta	7	3	Severe	04-Nov-13
39	41	48	74	170	Autumn	Veg	Farming	M	Pitta	3-A	2	Moderate	05-Nov-13
40	42	50	68	172	Autumn	Veg	Business	5th Pass	Vata	7	3	Severe	09-Nov-13
41	43	50	76	168	Autumn	Nonveg	Service	M	Vata	4-A	3	Severe	18/Nov/13
42	44	50	82	168	Autumn	Veg	Service	G	Kapha	3-A	2	Moderate	26/Nov/13
43	45	47	70	168	Autumn	Nonveg	Service	M	Vata	6	3	Severe	26/Nov/13
44	46	48	62	168	Autumn	Veg	Service	G	Pitta	3-A	2	Moderate	26/Nov/13
45	47	40	60	165	Autumn	Veg	Service	PG	Pitta	3-A	2	Moderate	26/Nov/13
46	48	50	62	153	Autumn	Nonveg	Service	M	Pitta	3-A	2	Moderate	26/Nov/13
47	49	41	54	165	Winter	Nonveg	Service	G	Vata	3-A	2	Moderate	02-Dec-13
48	50	36	85	158	Winter	Veg	Service	8th	Vata	4-V	2	Moderate	03-Dec-13
49	51	41	74	168	Winter	Veg	Service	PG	Pitta	4-A	3	Severe	05-Dec-13
50	52	40	80	168	Winter	Veg	Service	PG	Kapha	3-A	2	Moderate	13-Dec-13
51	54	42	72	176	Winter	Nonveg	Business	G	Kapha	3-A	2	Moderate	17-Dec-13
52	56	42	76	175	Winter	Veg	Business	G	Pitta	3-A	2	Moderate	20-Dec-13
53	57	48	70	170	Winter	Veg	Service	PG	Pitta	3-A	2	Moderate	21-Dec-13
54	59	40	75	174	Winter	Veg	Business	G	Kapha	3-A	2	Moderate	24-Dec-13
55	62	42	65	170	Winter	Nonveg	Business	G	Vata	5-A	3	Severe	25-Dec-13
56	63	45	76	173	Winter	Veg	Business	M	Pitta	5-A	3	Severe	25-Dec-13
57	64	35	58	158	Winter	Veg	Service	G	Pitta	7	3	Severe	26-Dec-13
58	66	35	55	165	Winter	Nonveg	Service	9th pass	Pitta	3-A	2	Moderate	26-Dec-13
59	69	49	74	175	Winter	Veg	Business	G	Pitta	7	3	Severe	01-Jan-14
60	70	50	71	171	Winter	Nonveg	Business	G	Vata	6	3	Severe	01-Jan-14
61	72	44	72	171	Winter	Nonveg	Business	G	Pitta	3-A	2	Moderate	04/Jan/14
62	73	50	80	173	Winter	Veg	Business	G	Kapha	7	3	Severe	04/Jan/14
63	76	50	80	171	Winter	Veg	Business	G	Kapha	7	3	Severe	08/Jan/14
64	77	36	72	172	Winter	Veg	Business	PG	Pitta	3-A	2	Moderate	08/Jan/14
65	79	50	72	170	Winter	Nonveg	Business	G	Pitta	5-V	3	Severe	13-Jan-14
66	80	50	72	172	Winter	Veg	Business	12th Pass	Pitta	7	3	Severe	13-Jan-14
67	81	40	69	178	Winter	Nonveg	Service	PG	Pitta	6	3	Severe	18-Jan-14
68	83	48	73	170	Winter	Veg	Service	G	Pitta	3-A	2	Moderate	20-Jan-14
69	84	50	60	168	Winter	Veg	Service	M	Pitta	4-A	3	Severe	20-Jan-14
70	85	50	65	165	Winter	Veg	Service	M	Vata	7	3	Severe	21-Jan-14
71	86	50	70	172	Winter	Nonveg	Service	M	Vata	7	3	Severe	22-Jan-14
72	87	42	71	170	Winter	Veg	Service	G	Pitta	4-V	2	Moderate	22-Jan-14

73	88	50	76	178	Winter	Veg	Business	G	Vata	3-A	2	Moderate	22-Jan-14
74	89	44	74	172	Winter	Nonveg	Business	M	Pitta	5-V	3	Severe	24-Jan-14
75	90	48	72	165	Winter	Veg	Service	M	Pitta	4-A	3	Severe	27-Jan-14
76	91	47	80	170	Winter	Veg	Service	G	Pitta	4-A	3	Severe	27-Jan-14
77	93	45	79	175	Winter	Veg	Service	G	Kapha	5-A	3	Severe	28-Jan-14
78	94	48	75	178	Winter	Nonveg	Business	G	Pitta	6	3	Severe	29-Jan-14
79	95	49	76	170	Winter	Veg	Service	PG	Pitta	4-V	2	Moderate	29-Jan-14
80	99	50	72	172	Spring	Veg	Business	G	Pitta	5-A	3	Severe	04-Feb-14
81	100	39	80	174	Spring	Veg	Business	G	Kapha	5-A	3	Severe	04-Feb-14
82	101	50	72	170	Spring	Nonveg	Service	G	Pitta	6	3	Severe	07-Feb-14
83	102	50	72	171	Spring	Nonveg	Business	12th fail	Pitta	4-A	3	Severe	07-Feb-14
84	103	50	76	178	Spring	Nonveg	Business	M	Pitta	6	3	Severe	17-Feb-14
85	104	50	71	170	Spring	Veg	Business	G	Pitta	4-A	3	Severe	17-Feb-14
86	105	45	80	171	Spring	Veg	Business	G	Kapha	6	3	Severe	17-Feb-14
87	106	50	87	173	Spring	Veg	Business	G	Kapha	5-V	3	Severe	17-Feb-14
88	107	50	75	180	Spring	Veg	Business	G	Pitta	6	3	Severe	19-Feb-14
89	108	44	70	173	Spring	Veg	Business	12th Pass	Vata	5-V	3	Severe	19-Feb-14
90	109	45	75	180	Spring	Veg	Business	G	Vata	4-A	3	Severe	21-Feb-14
91	110	45	74	174	Spring	Veg	Business	M	Pitta	4-A	3	Severe	21-Feb-14
92	111	44	73	171	Spring	Nonveg	Business	12th Pass	Pitta	5-A	3	Severe	21-Feb-14
93	112	50	75	173	Spring	Veg	Business	G	Pitta	7	3	Severe	24-Feb-14
94	113	50	85	170	Spring	Veg	Business	12th Pass	Vata	6	3	Severe	24-Feb-14
95	114	49	69	171	Spring	Nonveg	Business	12th Pass	Vata	3-A	2	Moderate	24-Feb-14
96	115	50	68	170	Spring	Veg	Service	12th Pass	Pitta	6	3	Severe	24-Feb-14
97	116	49	78	181	Spring	Veg	Business	G	Vata	7	3	Severe	26-Feb-14
98	117	50	75	179	Spring	Veg	Business	G	Vata	7	3	Severe	26-Feb-14
99	118	40	74	171	Spring	Veg	Business	G	Pitta	5-V	3	Severe	26-Feb-14
100	121	50	79	170	Spring	Nonveg	Business	12th Pass	Pitta	6	3	Severe	28-Feb-14
101	122	49	76	173	Spring	Nonveg	Service	G	Pitta	6	3	Severe	28-Feb-14
102	125	50	60	170	Spring	Veg	Business	G	Pitta	7	3	Severe	07-Mar-14
103	126	49	76	172	Spring	Veg	Business	12th Pass	Vata	5-A	3	Severe	07-Mar-14
104	127	50	86	174	Spring	Nonveg	Business	12th Pass	Pitta	6	3	Severe	20-Mar-14
105	128	42	69	171	Spring	Nonveg	Service	PG	Pitta	5-A	3	Severe	20-Mar-14
106	129	48	70	172	Spring	Nonveg	Business	G	Pitta	6	3	Severe	20-Mar-14
107	130	47	70	170	Spring	Veg	Service	G	Pitta	6	3	Severe	20-Mar-14
108	131	43	74	171	Spring	Nonveg	Service	PG	Pitta	4-A	3	Severe	20-Mar-14
109	134	42	78	176	Spring	Veg	Service	12th Pass	Pitta	5-V	3	Severe	24-Mar-14
110	135	41	81	180	Spring	Nonveg	Service	12th Pass	Vata	3-A	2	Moderate	24-Mar-14
111	137	40	78	172	Spring	Veg	Service	G	Pitta	6	3	Severe	24-Mar-14
112	138	41	79	170	Spring	Veg	Service	G	Pitta	6	3	Severe	25-Mar-14
113	139	43	70	169	Spring	Veg	Service	M	Pitta	7	3	Severe	25-Mar-14
114	140	48	72	171	Spring	Veg	Service	G	Pitta	3-A	2	Moderate	26-Mar-14
115	141	50	73	171	Spring	Veg	Service	G	Pitta	5-A	3	Severe	26-Mar-14
116	142	49	80	174	Spring	Veg	Business	12th Pass	Pitta	6	3	Severe	26-Mar-13
117	143	39	76	174	Spring	Veg	Business	12th Pass	Vata	3-A	2	Moderate	27-Mar-14
118	144	50	69	168	Spring	Veg	Service	12th Pass	Pitta	4-V	2	Moderate	27-Mar-14
119	145	46	80	176	Spring	Veg	Business	G	Pitta	5-A	3	Severe	27-Mar-14
120	146	49	69	171	Spring	Veg	Service	G	Vata	3-A	2	Moderate	28-Mar-14
121	147	36	75	172	Spring	Nonveg	Business	G	Pitta	5-A	3	Severe	28-Mar-14
122	148	43	71	170	Spring	Veg	Service	G	Vata	5-V	3	Severe	30-Mar-14
123	149	50	72	170	Spring	Veg	Service	G	Pitta	3-A	2	Moderate	30-Mar-14
124	151	49	74	172	Spring	Veg	Service	G	Pitta	5-V	3	Severe	31-Mar-14
125	152	50	72	170	Spring	Veg	Business	G	Vata	7	3	Severe	31-Mar-14
126	154	50	78	172	Spring	Nonveg	Business	G	Pitta	6	3	Severe	31-Mar-14
127	155	48	78	172	Summer	Veg	Service	12th Pass	Vata	4-A	3	Severe	02-Apr-14
128	156	48	71	172	Summer	Veg	Business	G	Vata	6	3	Severe	02-Apr-14
129	157	38	74	171	Summer	Nonveg	Service	PG	Pitta	4-A	3	Severe	03-Apr-14
130	159	42	75	171	Summer	Veg	Service	G	Pitta	7	3	Severe	04-Apr-14
131	161	44	82	171	Summer	Veg	Business	12th Pass	Pitta	4-V	2	Moderate	04-Apr-14
132	164	39	77	171	Summer	Veg	Business	G	Vata	3-A	2	Moderate	09-Apr-14
133	165	50	68	170	Summer	Nonveg	Service	12th Pass	Pitta	3-A	2	Moderate	09-Apr-14
134	166	46	70	171	Summer	Nonveg	Business	G	Pitta	4-V	2	Moderate	10-Apr-14
135	167	46	74	170	Summer	Veg	Business	G	Pitta	6	3	Severe	11-Apr-14
136	168	47	73	172	Summer	Veg	Business	G	Pitta	4-A	3	Severe	11-Apr-14
137	170	50	76	174	Summer	Nonveg	Service	G	Pitta	7	3	Severe	11-Apr-14
138	171	35	70	169	Summer	Nonveg	Service	12th Pass	Vata	5-A	3	Severe	11-Apr-14
139	173	50	79	176	Summer	Veg	Service	G	Vata	7	3	Severe	23-Apr-14
140	174	49	73	170	Summer	Veg	Service	12th Pass	Pitta	5-V	3	Severe	25-Apr-14
141	175	50	80	172	Summer	Veg	Business	12th Pass	Pitta	5-V	3	Severe	25-Apr-14
142	176	50	76	171	Summer	Nonveg	Business	12th Pass	Pitta	6	3	Severe	25-Apr-14
143	177	43	67	169	Summer	Veg	Service	G	Pitta	4-A	3	Severe	28-Apr-14
144	178	46	69	168	Summer	Veg	Business	G	Vata	5-A	3	Severe	28-Apr-14
145	179	50	82	172	Summer	Veg	Business	G	Pitta	7	3	Severe	05-May-14
146	181	50	88	172	Summer	Nonveg	Business	M	Pitta	7	3	Severe	05-May-14
147	182	49	75	171	Summer	Veg	Business	8th Passs	Pitta	7	3	Severe	05-May-14
148	183	48	70	170	Summer	Veg	Business	M	Pitta	7	3	Severe	07-May-14
149	184	41	80	180	Summer	Nonveg	Service	PG	Vata	4-V	2	Moderate	07-May-14
150	185	40	81	172	Summer	Nonveg	Business	G	Pitta	6	3	Severe	07-May-14

151	186	44	77	171	Summer	Veg	Business	G	Vata	5-A	3	Severe	07-May-14
152	187	49	71	170	Summer	Veg	Business	G	Pitta	5-V	3	Severe	07-May-14
153	188	50	75	172	Summer	Veg	Business	G	Pitta	7	3	Severe	16-May-14
154	190	50	70	174	Summer	Veg	Service	G	Vata	5-V	3	Severe	20-May-14
155	191	44	70	170	Summer	Veg	Service	G	Pitta	4-A	3	Severe	20-May-14
156	192	50	75	165	Summer	Veg	Service	9th Pass	Pitta	4-V	2	Moderate	20-May-14
157	193	50	60	155	Summer	Veg	Service	5th Pass	Pitta	6	3	Severe	22-May-14
158	194	48	78	170	Summer	Veg	Business	G	Pitta	4-A	3	Severe	22-May-14
159	195	46	74	172	Summer	Veg	Business	G	Kapha	5-A	3	Severe	26-May-14
160	196	50	69	168	Summer	Veg	Business	G	Vata	7	3	Severe	27-May-14
161	197	42	72	160	Summer	Veg	Business	G	Pitta	4-A	3	Severe	30-May-14
162	198	47	73	172	Summer	Veg	Service	M	Pitta	4-A	3	Severe	30-May-14
163	199	48	80	170	Summer	Veg	Business	M	Vata	5-V	3	Severe	02-Jun-14
164	200	40	71	172	Summer	Nonveg	Service	M	Pitta	3-A	2	Moderate	02-Jun-14
165	201	46	74	168	Summer	Veg	Service	10th Pass	Pitta	6	3	Severe	02-Jun-14
166	202	49	72	173	Summer	Nonveg	Business	G	Vata	4-V	2	Moderate	02-Jun-14
167	204	50	65	165	Summer	Nonveg	Business	12th Pass	Vata	5-A	3	Severe	04-Jun-14
168	205	40	75	168	Summer	Nonveg	Business	G	Pitta	3-V	2	Moderate	04-Jun-14
169	206	41	83	172	Summer	Veg	Business	G	Pitta	6	3	Severe	04-Jun-14
170	208	46	75	173	Summer	Veg	Business	G	Pitta	6	3	Severe	05-Jun-14
171	209	47	74	173	Summer	Veg	Business	G	Pitta	6	3	Severe	12-Jun-14
172	210	50	69	171	Summer	Veg	Business	12th Pass	Pitta	3-A	2	Moderate	13-Jun-14
173	211	50	70	167	Summer	Nonveg	Service	8th Passs	Pitta	5-A	3	Severe	14-Jun-14
174	212	40	50	164	Summer	Veg	Business	G	Pitta	3-V	2	Moderate	14-Jun-14
175	213	44	81	171	Summer	Nonveg	Business	12th Pass	Pitta	6	3	Severe	14-Jun-14
176	215	41	72	170	Summer	Nonveg	Service	G	Vata	5-V	3	Severe	18-Jun-14
177	220	50	65	165	Summer	Veg	Business	M	Pitta	4-A	3	Severe	28-Jun-14
178	221	50	80	174	Rainy	Nonveg	Business	M	Kapha	3-A	2	Moderate	21-Jul-14
179	222	39	75	173	Rainy	Nonveg	Business	8th Passs	Pitta	7	3	Severe	21-Jul-14
180	224	50	82	171	Rainy	Veg	Business	6th Pass	Pitta	7	3	Severe	22-Jul-14
181	225	40	78	171	Rainy	Veg	Business	8th Passs	Pitta	6	3	Severe	24-Jul-14
182	226	42	78	173	Rainy	Nonveg	Business	7th Pass	Pitta	5-V	3	Severe	28-Jul-14
183	227	35	71	173	Rainy	Nonveg	Service	G	Pitta	4-A	3	Severe	28-Jul-14
184	228	43	77	170	Rainy	Veg	Service	M	Pitta	3-A	2	Moderate	30-Jul-14
185	229	39	71	172	Rainy	Nonveg	Service	G	Vata	5-V	3	Severe	30-Jul-14
186	230	44	76	173	Rainy	Veg	Service	8th Passs	Vata	3-A	2	Moderate	30-Jul-14
187	231	48	74	170	Rainy	Veg	Business	G	Pitta	5-V	3	Severe	01-Aug-14
188	233	45	64	171	Rainy	Nonveg	Service	12th Pass	Vata	4-A	3	Severe	27-Aug-14
189	236	47	71	174	Rainy	Veg	Service	12th Pass	Pitta	5-V	3	Severe	03-Sep-14
190	237	42	76	173	Rainy	Nonveg	Service	G	Vata	5-V	3	Severe	03-Sep-14
191	238	41	74	174	Rainy	Veg	Service	12th Pass	Vata	6	3	Severe	03-Sep-14
192	239	43	70	172	Rainy	Veg	Business	G	Pitta	4-A	3	Severe	18-Sep-14
193	240	43	71	170	Rainy	Nonveg	Service	G	Pitta	6	3	Severe	18-Sep-14

							Group-B			
						Pitta Colour		Pitta= 126		
						Vata Colour		Vata=50		
						Kapha Colour		Kapha=17		
								Total=193		

The proforma to assess *Deha Prakriti* based on

Charaka Samhita

CRF

Name   Age   Weight

Height in Cm   Kala   Occupation

Address

Screening:-

Inclusion:-

- o   Male baldness
- o   Healthy persons

Exclusion

- o   Females
- o   Known chronic diseased persons

Ques.No.	Questions	Answer	Maximum score	Allotted score
1	Whether your skin remains oily throughout the year in comparison to others?	Yes	100	
2	Your body hairs & skin are shiny even when no oil or moisturizer is used.	Yes	100	
3	Are you considered attractive among your friends?	Yes	33.33	
4	Do even mild or trivial injuries on your body make you upset?	Yes	33.33	
5	Among your family members is your complexion considered fairer?	Yes	33.33	
6	In comparison to your friends do watch adult movies more often or have a desire to watch them? Or Do you like reading magazines/ novels containing romantic /pornographic literature?	Yes	50	
7	<u>Question from bachelors</u>- Do you masturbate? If yes, then frequency of masturbation. If it is > 5 times /week- <u>Question for married</u>- Frequency of intercourse. If it is >5 times/ week-	Yes	50	

8	You have got well built muscles.	Yes	25	
9	Your BMI is towards the upper limits of normal range (23-25). BMI= weight(in kg)/height(in m2)	Yes	25	
10	You don't feel like changing your body postures frequently. You can manage yourself in a stable posture for long duration.	Yes	50	
11	You have a well nourished & normally developed body. (You don't have dwarfism/ cretinism like abnormalities & malnourishment disorders.)	Yes	100	
12	a) Do you like morning walk/ jogging/ swimming or any type of outdoor sports? or b) Do you complete a work given to you slowly in comparison to others?	Yes	33.33	
13	Are you slow in consuming the food? Even after all have left the dining hall, are you still consuming?	Yes	33.33	
14	When you go to morning walk or college or office, do you walk slowly in comparison to others?	Yes	33.33	
15	If you assigned any work, do you take some time to start it?	Yes	33.33	
16	Do you get irritated easily? When you don't get the auto for office or college on time or when power goes off while you are watching your favorite TV serial.	No	33.33	
17	After the consumption of Ice cream / Cold drinks, do you get pharyngitis /common cold from the very next day?	No	33.33	
18	Does your gait vary with respect to speed or manner frequently?	No	100	
19	Do you feel hungry more frequently and the quantity of food you consume is more, in comparison to others?	No	25	
20	Do you tolerate heat easily?	Yes	25	
21	Do you consume liquids in more quantity and repeatedly in comparison to others?	No	25	
22	Do you perspire less in comparison to others?	Yes	25	
23	On body movements is any sound produced in your joints?	No	100	
24	You have got a good complexion.	Yes	50	

25	You have got sweet & pleasant voice.	Yes	50	
	Total = K=X/1200*100 K=X/12		1200	X=
26	Do you prefer cold drinks over warm drinks?	Yes	6.25	
27	Are you more comfortable in winter than summer?	Yes	6.25	
28	Do even mild or trivial injuries on your body make you upset?	Yes	12.5	
29	Among your family members is your complexion considered fairer?	Yes	12.5	
30	Is your temperature of oral cavity towards upper limit of normal temperature? (normal temp.=97.6-98.4 F) If it is 98.2 or 98.4	Yes	12.5	
31	Do you have excessive black moles, freckles etc. or Have you noticed new appearance of black moles often?	Yes	12.5	
32	Do you feel excessive hunger & thirst in comparison to others?	Yes	12.5	
33	Have you experienced premature graying, wrinkling of skin & early baldness?	Yes	12.5	
34	Do you have soft, scanty, brown hair on your face, body & head?	Yes	12.5	
35	Do you involve yourself in risky & heroic activities requiring physical strength often?	Yes	20	
36	Do you have ability to digest large quantities of food easily?	Yes	20	
37	Do you take large quantities of food & drinks in comparison to others?	Yes	20	
38	Do you get easily irritated for small / negligible problems in day to day life?	Yes	20	
39	Do you keep consuming food frequently? (5-6 times/day)	Yes	20	
40	Do you have soft & loose muscle bulk especially around the joints?	Yes	50	

41	In comparison to others, do you pass urine & stools in large quantities and do you perspire more?	Yes	50	
42	Do your friends complain of bad smell being emitted from your body & mouth?	Yes	100	
43	In comparison to your friends do you watch adult movies often or have a desire to watch them?	No	50	
44	Do you like reading magazines / novels containing romantic / pornographic literature?	No	50	
	Total = P=X/600 x 100 P= X/6		600	X=
45	Whether your skin remains dry throughout the year in comparison to others?	Yes	20	
46	You have got an undernourished / emaciated body.	Yes	20	
47	Yours is underdeveloped body. BMI= towards the lower limit of normal. (19-21)	Yes	20	
48	You've got a rough, low, broken or obstructed voice.	Yes	20	
49	Your sleep lasts for less then 6 hrs. Per day. or Can your sleep be disturbed easily?	Yes	20	
50	Do you change your walking speed & style from time to time?	Yes	25	
51	Do you keep your body parts moving often?	Yes	25	
52	Does your food habit keep changing from time to time?	Yes	25	
53	Do you change your walking / jogging habits from time to time?	Yes	25	
54	Do you keep your joints, eyes, eyebrows, jaw, lips, tongue, head, shoulder, hands & feet frequently moving often?	Yes	100	

55	Are you considered a talkative person among your social circle or your friends?	Yes	50	
56	Do you have prominent veins & tendons all over the body?	Yes	50	
57	Do you start the work assigned to you immediately?	Yes	14.2	
58	Do you get irritated easily?	Yes	14.2	
59	After the consumption of Ice cream / Cold drinks, do you get pharyngitis /common cold from the very next day?	Yes	14.2	
60	Do you get frightened easily?	Yes	14.2	
61	Do you make friends easily & also lose them easily?	Yes	14.2	
62	Do you learn things immediately? or Do you have a good grasping power?	Yes	14.2	
63	You can remember how many names of your friends during 1st standard of primary school? If it is less than 5-	Yes	14.2	
64	Are you more comfortable in summer? or Do you prefer warm drinks over cold drinks?	Yes	25	
65	Do you easily afflicted with disorders related with cold like common cold etc.	Yes	25	
66	Do you shiver in winter season more than your friends?	Yes	25	
67	Do you get attacks of stiffness in your body often?	Yes	25	
68	Are your hairs on body & face; nails teeth, hands & feet rough?	Yes	100	
69	Do you have cracks on the body especially in the heels?	Yes	50	

70	Are some sounds heard on movements of your joints?	Yes	50	
	Total = V=X /800 x 100 V= X / 8		800	X=

Scoring

There are 70 questions in this proforma. Each question consists of option as Yes or No.

If volunteer's answer is according to option, he will get full marks, otherwise zero.

After that the percentage of total marks will be taken for each *Prakriti (Vata, Pitta and Kapha)*.

In these three *Prakriti*, in which the individual gets maximum percentage of marks it will be his *Deha Prakriti* (according to *Dosha* predominance).

Format of Patient (Volunteer) Consent Form

Photograph
Of
Volunteer

Name of the volunteer--

Name of the Physician-

Name of Institution- Tilak Maharashtra Vidyapeeth

The Informed Consent

I, -- have read the information in this form (or it has been read to me). I was free to ask any questions and they have been answered. I am over 18 years of age and, exercising my free power of choice, hereby give my consent to be included as a patient (volunteer) for An Observational Study Of Khaliya in different Deha prakriti with the help of Hamilton Norwood Scale.

1. I have read and understood this consent form and the information provided to me.
2. I have had the consent document explained to me.
3. I have been explained about the nature of the study.
4. My responsibilities have been explained to me by the investigator.
5. I have been advised about the risks associated with the study.(No risks)
6. I have informed the physician of all the treatments I am taking or have taken in the past months including allopath, Ayurved, homeopathic or any household treatments.(x)
7. I agree to cooperate with the physician and I will inform him if I suffer unusual symptoms.
8. My identity will be kept confidential if my data are publicly presented.
9. I have had my questions answered to my satisfaction regarding expected results as well as unwanted effects of the procedure.

By signing this consent form, I attest that the information given in this document has been clearly explained to me and apparently understood by me. I will be given a copy of this consent document.
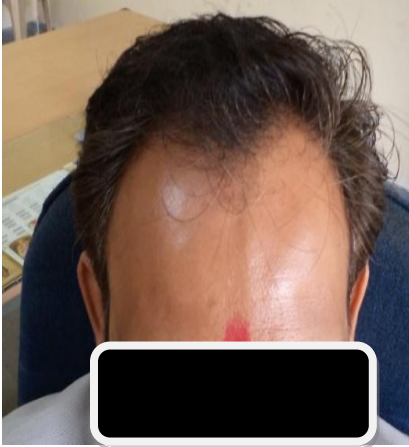
Patient's (Volunteer's) sign------------------------------------
Name--
Place---
Date--
Time--

Annexure-9

Norwood type stage -3A

Norwood type stage -3V

Norwood type stage -4A

Norwood type stage -4V

Norwood type stage -5A

Norwood type stage -5V

Annexure-9

Norwood type stage -6

Norwood type stage -7

Annexure-10

Abbreviations

क्रम	सन्क्षेप	विस्तृत
1	च.	चरक संहिता
2	अ.ह्र.सू.	अष्टाङ्ग हृदय सूत्रस्थान
3	सु.शा.	सुश्रुत संहिता
4	शा.पु.	शार्ङ्गधर संहिता
5	अ.स.	अष्टाङ्गसंग्रह
6	सू.	सूत्रस्थान
7	वि.	विमानस्थान
8	चि.	चिकित्सास्थान
9	शा	शारीरस्थान