SECTION—B

DERMATOLOGY IN ANCIENT INDIA
(PRE-HISTORIC PERIOD -- 800 A.D.)
CHAPTER I  PRE-HISTORIC PHASE OF THE INDIAN MEDICINE

India was inhabited since the prehistoric period. Different evidence of stone-age man had been discovered in many parts of the country. They probably lived a life of hunters and gatherers. We do not have any direct or indirect evidence of medical knowledge at that period.

Pre-historic India, in a broad sense stretches from the time of Stone Age till the systemized or written history of this country started. The oldest evidence of writing are the seals of the Indus Valley Civilization which prevailed in third and second millennia B.C. Unfortunately none of these seals could be deciphered so far and hence no direct information could be gathered from them. Historical analyses of the remains showed that it was a well organized and planned civilization. The way the cities of Harappa, Mohanjo-Daro, and Lothal etc. were planned give a clear view that the people of these places were very much conscious about the hygiene. Archaeological evidence from the study of the remains of human body shows that the people of Indus valley civilization had a sound knowledge of medicine and various medical procedures. An archaeological study done by Professor Andrea Cucina from the University of Missouri-Columbia, a physical anthropologist revealed that the teeth of the ancient man, whose remains were 9000 years old, under examination had been drilled.

If we wish to have a picture of this period, then we must know about those who were the then inhabitants of the country. Secondly we should also try to know whether they had any connection with other civilization existing in other parts of the world at that period. Knowledge of these factors may throw some light upon the life of the people of this country by providing indirect proof.
It is not yet known who the original inhabitants of this country were. Anthropological evidences showed that there were at least six different races who who populated this country in the ancient period namely, Negrito, Proto-Australoid, Mediterraneans, Mongoloids, Western brachycephalics and Nordics.

The aboriginal tribes today are usually divided into many sects ---Santhals, Koles, Savars, and Munda etc. Many of them cherish the age-old traditions in almost unaltered form even in these days which are overtly or covertly expressed in their various cultures and customs. If one goes deep into the cultures and customs of these people, one can gather much information about the history of the ancient India.

The concept of disease amongst them consisted of the act of demons, supernatural forces and spirits of the dead. They worshiped natural beings like snakes, trees and different deities of stones and some other animate and inanimate objects. Their conception of diseases is magical or magico-religious. The Ojhas and Gurus—who ward off the disease by charms, amulets, incantations, talismans and various other incomprehensible magical acts, play roles of the Shaman as we see in all the ancient civilizations. A shaman is usually a part time male specialist who has fairly high status in his community and is often involved in healing. They are the ‘faith-healer’ or ‘folk-doctors’. Many tribes of Bihar, Madhya Pradesh, Orissa, and West Bengal have a very strong institution of shamanism. The primitive tribal communities feel very insecure and helpless from the fear of the unknown. The fear of epidemic, natural disaster, inter group war-fare, sorcery therefore sustains the shamanism.

We do not have any clear evidence of the nature of medical practice of those days; but it could be guessed that the tropical climate, hunting and fight for the territorial rights must have caused injuries and other disease which had compelled them to find out some short of remedies to fight those menaces.
CHAPTER II “DARK-MILLENIUM” OF INDIAN HISTORY
(2500B.C-1500B.C)

This is the period of Indian history, which witnessed one of the most developed civilizations in the contemporary world. Unfortunately very little is known to us about the details of this civilization, hence has been termed as the “dark millennium” of the Indian history by some famous historians. This highly cultured civilization developed in Harappa, Mohanjo-Daro, Kalibangan, Lothal, Chanhu-daro and extended parts of Gujarat, Rajasthan, Punjab and Pakistan during this period. This chalcolithic civilization has been called “Indus Valley Civilization” as it developed around the Indus valley region. It witnessed the peak at a period that was contemporary to the period of Sargon of Agada of Mesopotamia (2300B.C.). People of this civilization had a well maintained urban set up with a very clear idea of hygiene and sanitation that was very much evident with in their towns where one could see surprisingly well developed covered sewerage system and well thought planning of the town. Not only the hygiene but also the health of the people with attention to beauty was given enough importance. The small figurine of a lady discovered at Indus valley civilization sporting bangles on her arm showed the taste for the beauty that gave us an impression about the practice of cosmetics and hair care of that era.

How this great civilization faced disaster is till date a great mystery. There are many schools of thought regarding the destruction of the Indus valley civilization. One-group of scholars believed that the inhabitant of this civilization was driven away from their homeland by the Aryan; others believed about the role of natural calamity or the change of the direction of flow of the Indus River. Who were the actual inhabitants and what
were their destiny is still a mystery. Piggot had opined: Our knowledge that the Indus valley civilization was flourishing in Northern and Western India at the beginning of the second millennium B.C. centered on cities with strongly fortified citadels and containing among its population a large proportion of ‘Proto-Australoids’ with dark skin and flat nose and the cities came to a sudden and violent end, makes the identification of Dasyus and Dasas of the mentioned in the Vedas with the inhabitants of the Indus valley Civilization something near certainty.42

The Aryans were successful in throwing out their enemies but after a certain period they accepted many things from the prevailing culture of the non-Aryans, and that had led to the emergence of composite culture where the presence of the previous cultural components were very much apparent. When we go through the Vedic literature a distinct shadow of the pre-Vedic culture and custom become prominent. As far as the disease and remedial processes are concerned, Atharva Veda deals more than the other Vedas. The religion of the Athavaveda resembled the cult of the Harappan civilization so much, it appeared that it was taken over from the people of Indus valley civilization.43 It has been aptly observed by Macdonner: In spirit, however the Atharvaveda is not only entirely different from the Rig Veda, but represents a much more primitive stage of thought. While the Rig Veda deals almost exclusively with the higher gods as conceived by a comparative advanced and refined sacerdotal class, the Atharvaveda is, in the main, a book of spells and incantations appealing to the demon-world and teems with the notions about witch-craft present among the lower grades of populations and derived from immemorial antiquity.44

So, if we consider that the shadow of the Indus Valley Civilization had fallen on the lives and beliefs of the Aryan civilization, then it could also be concluded that the medical and health care practice of the “Dark part” of the Indian history had somewhat similar effect and that could be traceable from the Vedic literatures. The medical practice of this period was mainly magico-religious act of providing a cure. Some of the treatment methods were the result of keen observation of generations, e.g., use of some herbs, which were pharmacologically effective. Be it magico-religious or rational, the whole thing did not appear suddenly— it was certainly gathered from the prevailing practice of the country
with which the experience of the Aryans was admixed. Even today an undercurrent is flowing in the present-day life of this country where one can feel the influence of the ancient culture and custom in many of the activities of life. Some of the traditions are maintained in the pure form even today, particularly in the tribal societies.

The Indus Valley Civilization was contemporary to that of the Mesopotamia, Crete, Egypt and the presence of seals of one civilization in the other showed that they had acquaintances amongst themselves. Various transactions among them must have influenced cultures of one upon another. So if we study them together we might have a gross idea of that period. The disease and death were considered in all these old civilizations an act of the spirit or dead persons. To get rid of the diseases one used to use amulets, charms, incantations to either appease or drive away. The essence was similar in all the civilizations including possibly that of the Indus valley.

The concept of about disease in the Atharva Veda was composed of the acts as described in the ancient civilizations mentioned. So we may conclude that the some sort of similar methodology might have been practiced in the pre-Vedic era.

We may summarize that though we don’t have a clear and direct picture of medical knowledge of the so called “Dark-millennium” but it influenced the culture of the later Vedic period. It gives us an impression that medical practice of the country in the later days owes a lot from the “Dark-millennium”. Also the Vedic culture which we inherit today is not a pure culture of the Aryans but it is a composite culture evolved as a result of intermingling of the culture of the Aryans along with that of the culture of the other ancient inhabitants of the country. No clear system of medicine had appeared and the whole system was based on the magico-religious beliefs.
3.1 A BRIEF DISCUSSION ABOUT THE VEDIC LITERATURES

*Veda* is the early literature of the Aryans and sacred book of Hindus. Before we explore the *Vedas* about the science of dermatology in Vedic period a brief discussion about it is undertaken here. Vedic literature is composed of a vast ocean of four *Vedas* along with many associated literatures like *Brahman, Aranyak, Upanishads, Vedanga* and many more. Many parts of this Vedic literature are believed to be extinct today. In the ancient time, the *suktas* and *mantras* of the *Vedas* were propagated from the teacher to students who had to memorize and transmit to the next generation in the same way, and it continued in the same fashion for centuries after centuries; hence the other name of *Veda* is *Shruti* i.e., to memorize by hearing only. A detailed discussion about all of these is beyond the scope of this present study.

The actual period of origin of the Vedas can not even be approximated to a certain time due to lack of any specific evidence. It was however certain that the four Vedas were evolved in many centuries. Maxmullar, though not very certain, placed the beginning of the Vedic literature in the later half of the second millennium B.C. Other authorities like Tilak and Jacobi pushed the date farther back on the astronomical ground. In this state of confusion, the discovery of some tablets dated about fourteenth century B.C. from Boghaz Keui revealed that kings of that period bore Aryan names and there were references of Vedic gods like *Indra, Mitra* etc. and hence the Vedic cult must be prevalent at that period, i.e., 14th century B.C. The *Vedas*, namely, *Rig, Sama, yajur* and *Athava* were compiled during a long period period, probably from 1500B.C.-1000B.C. and 'represented the very best in speculative thinking apart from containing numerous references on drugs, diseases and stars.' Rik *Veda* is considered the oldest of
all Vedas. All the Vedas are interrelated; hence one sees repetition of suktas among different Vedas. For example, of the 1603 suktas of the Sama Veda, only 99 are not found in the Rik Veda. Similarly, more than half of the mantras of the Vaisaneya samhita of the Yajur Veda are found in the Rik Veda and one fifth mantras of the Atharva Veda are again repeated in the Rik Veda. Thus we see that the Rik Veda contains parts of almost all Veda. This is one reason why it is thought as the oldest one.

In the ancient time, the suktas and mantras of the Vedas were propagated from the teacher to students who had to memorize and transmit to the next generation in the same way, and it continued in the same fashion for centuries after centuries.

Rig Veda is divided into ten mandals; each mandal contains a number of suktas which in turn are composed riks which are again a hymn of two stanzas. There are 10552 riks in this Veda.

Sama Veda used to be sung as songs during any religious rites and yagnas. There are two divisions: archik and gaan.

Yajur Veda was chanted during religious rites by the adhuryyas (responsible for this job). Yajur Veda was divided into two parts: Shukla Yajur Veda and Krishna Yajur Veda.

Atharva Veda contains mantras which were mainly associated with the rites about household activities and social reasons. It is the most important of all Vedas about its dealing with the disease and their managements.

3.2 MEDICINE AND DERMATOLOGY IN VEDAS

Among various subjects mentioned in the Vedas, descriptions and management of different diseases took a large space. Though the Atharva Veda contains the largest sections of the medical matters, there are mentions in other Vedas too. From Rik Veda we see that there were hundreds of Brahmins engaged in the collection of medicinal herbs; there were hundreds of physicians to impart treatment to the diseased:

Yatroushadhih samanmataha rajanah samitamib
Few examples are cited here before a larger discussion about dermatology in *Atharva Veda* is undertaken.

In the *ricks* VIII.91.4-7 of the *Rik Veda*, we see that Apala, who was the *Rishi* or author of theses rhymes, was abandoned by her husband as she had been suffering from some hair disease. She also mentioned about similar problem in her father and was praying to the god Indra for growing of hairs:

*Imani treami vistapa taneendra bi rohaya*

*Shirastyaorvara madidang ma upodara. Rik Veda VIII.91.5*

*Asou cha ya na urvara dimang tanyan gama*

*Aho tatasya yachhiraha sarva ta romasha kridhi. Rik Veda VIII.91.5*

Whether they had any genetic hair disorder is not clear here. From the *ricks* X.40.5-14 it appears that the sage Ghosha was cured of leprosy by the Ashwini kumars, the divine physicians. The discussions in the *suktas* 112,116,117 of the 1st *Mandala* revealed that treatments of various conditions like disability, blindness, weakness of the limbs, and rejuvenation were known at that period. Also here we get an account of iron prosthesis for the severed leg in war:

*Charitram hi beribachedi marnapaja kelasya paritaksyayam*

*Sadyo janghamayasing vispalayii dhane hite sartabe pratyahdhattam. Rik Veda X.116.15.*
They also knew about the treatment of infertility and resuscitation. The physicians of the Vedic period were well aware about the heliotherapy. In the riks I.50.11-13 we see that vitiligo was treated with the chanting of these riks, i.e., with the grace of the Sun God. Likewise the rik I.123.17 mentions that the Sun has power of curing many diseases.

The people of this period were well conscious about the cosmetology:

*Bara ibed raibataso hiranyali ravi sadavistanyaha pipisre*

*Shriye shryangstabaso ratheshu satra mahangshī chakrire tanusu. Rik Veda V.60.4.*

There is mention of many diseases in *Shukla Yajur Veda* also. There are discussions on the toxicology, anti tubercular activity of certain medicines etc. It mentions about diseases like piles, dropsy, oral ulcers, skin diseases, cholera, and heart diseases etc.⁴⁸

### 3.3 ATHARVA-VEDA

The medical practice of the Vedic period is traced from the Vedic literatures that are the ancient literary records of the Aryan race and sacred books of the Hindus. Amongst the vast ocean of Vedic literatures the four *Vedas* along with *Samhitas, Brahmanas, Upanishads* are considered the most important and significant ones. These literatures were created from the time immemorial and were not compiled simultaneously; it took several hundreds of years to complete the whole process of compilation. The process of compilation started in about 1500 B.C. and was completed around 800B.C.

*Rik Veda* is the oldest of all the Vedic literatures. Amongst them, the *Atharva Veda* has the peculiarity of being an important source of knowledge of the Indo-Iranian period and it was not very much influenced by the priestly religious and philosophical texts. Also *Atharva Veda* deals much more with the diseases and their management than the other literatures. It is usually thought that *Ayurveda* was directly derived from the *Atharva Veda*, as many part of the *Ayurveda* is very evidently similar in concept with those of the
*Atharva Veda*. The two main pillars of *Ayurveda*, *Charakasamhita* and *Sushrut samhita* also support the fact.

*Atharva Veda* contains about 731 hymns, which are a collection of about 6000 verses. The concept of medicine in Vedic literatures is mainly based on magico-religious faith. There is no clear aetiological view or pharmacological thinking evident about the disease process in terms of the present day medicine. Diseases were thought to occur as a result of the evil activity of the evil spirits and persons like *pisachas*, *airins*, *knavas* etc. Sometimes they were also thought as a curse of the gods, like *takman* (fever) was thought as a curse of the Rudra. Not only the diseases, *Atharva Veda* also deals with the treatment (*chikitsa*), offering (*bali*), incantations (*mantras*) etc.

*Atharva Veda* contains many verses dealing with different diseases. There are many diseases like fever, jaundice, urological problems, heart diseases, tuberculosis, catarrh and cough, pains in the neck and shoulder, poisoning, seizure, malaria that are mentioned, but in this discussion we will concentrate on the dermatological disorders mainly.

In *Atharvaveda* there are many verses regarding the dermatological disorders.

The first mention of dermatological manifestation in the form of *kamala* (jaundice) is found in Book-I which mainly deals with the treatment:

*Anu śuryamudetam hrdyota harima ca te*

*Go rohitasya varnena tena twa paridhasi.* (I.22.1)

Let them (both) go up toward the sun, thy heartburn and yellowness; with the colour of the red bull, with that we enclose thee.

It has been explained in the *Suktanukramanika* that these verses were used for the healing rite of the heart-diseases and jaundice.
Another verse also mentioned for the same reason:

*Cukeshu te harimanahanag ropanakasu dyusi*

*Atha haridravasu te harimananagni dyusi.* (I.22.4)

In the parrots, in the *ropanakas* (apparently a kind of parrot), we put thy yellowness; likewise in the *haridravas* (apparently a yellow colour water-wagtail) we deposit thy yellowness.52

Vitiligo was probably posing the same magnitude of problem as it is even now. But during this period this term was used for both leprosy as well as vitiligo. The famous commentator Sayana has meant white disease (? leprosy, leukoderma) by the word *kilasa* and by the word *palita* the commentator has tried to mean the dryness of the skin as seen in old ages (? xerotic patch of leprosy). The following hymn was connected with the remedial rite in the form of *homa* for the treatment of both *sweata kustha* (vitiligo) and *palita kustha*:

*Naktam jatasyousadhe rame krishne asikni ca*

*Idang rajani rajaya kilasam palitam ca yat.* (II.23.1)

*Kilasang ca palitang ca nirito nasaya prishat*

*A twa swo vistyang varnah para shuklani pataya.* (II.23.2)

*Ashitang te pralayanamasthanamamshitam taba*

*Asiknyosouadhrenirito nasaya prishat.* (II.23.3)

*Asthijasya kilasays tamijasya ca yat twice*

*Dusya kritasyabramhana Ikshmaswetamaninasham.* (II.23.4)
Another sukta (hymn) in the same book deals again with the same disease:

\[ \text{Suparno jataha prathamastasya tvang pitam asit} \]

\[ \text{Tadasuri yudha jita rupam chakre vanaspatim. (II.24.1)} \]

\[ \text{Asuri cakre pratamedam kilasabhesajamidang kilasanasanam} \]

\[ \text{Aninashang kilasam sarupamakarat tvacham. (II.24.2)} \]

\[ \text{Sarupa nama te mata sarupo namo te pita} \]

\[ \text{Sarupokrit tvamosadhe sa sarupomridam kridhi. (II.24.3)} \]

\[ \text{Shyama sarupang karani prithibya adhuytbhuta} \]

\[ \text{Idamm su pra sadhayapuna rupani kalpaya. (II.23.4)} \]

It has been told in the commentary that the above hymns are the most effective in the treatment of the leucoderma. These incantations are to be chanted while the rites are performed. Along with them the disease affected area was to be smeared with the herbs like Bhringaraja, Haridra Indravaruni and Nilika.

Yaksma (Tuberculosis) enjoyed a very important role amongst the various diseases as is evident from many hymns attributed to them:

\[ \text{Asthivyaste majjabhya snabobhya dharmanibhyah} \]

\[ \text{Yaksman panibhya angulibhya h nakheyya bi brihami te. (II.33.6)} \]

From thy bones, marrows, sinews, vessels, hands, fingers, nails, I eject for thee the yaksma.\textsuperscript{53}
Ange ange lomni-lomni yaste parvani parvani

Yaksam twachasyam te bayam Kasyapasya

vibarhana visvasnam bi brihamasi.(II.33.7)

What in thine every limb, every hair every joint—the *yaksma* of thy skin do we, with the Kasyapa’s ejector eject away. 54

From the above hymns it is very clear that tuberculosis of many organs including those of skin, hairs and nails were known to the Vedic people.

There were some hymns about the healing rites of *yaksma* like:

*Varane varayata ayam debo vanaspati*

*Yaksno yo asminnavistostam deva abibaran. (VI.85.1)*

The *Varana*, this divine forest-tree, shall ward off, the *yaksma* that has entered into this man --- that have the gods warded off. 55

*Indrasya vachasa bayammitrasya varunasya cha*

*Debanam sarvesam bacha yaksman te vayamahe. (VI.85.2)*

With the ward *vachas* of *Indra*, of *Mitra*, and of *Varuna*, with the voice of all the gods, do we ward off thy *yaksma*. 56

*Yatha Vritra ima apastastambha viswadha yati*

*Eba te angina yaksman vaiswanaren varaye.(VI.85.3)*
As Vritra stopped these waters going in all directions, so, by means Agni Vaisvanara, do I ward off thy yaksma.\textsuperscript{57}

The above hymns were used while performing the healing rites against tuberculosis by putting an amulet made of \textit{varana} tree.

There were many instances of verses about worm infestations and disease occurred out of that:

\textit{Yo aksouparisarpati yo nase parisarpati}

\textit{Datam yo madhyam gachhati twam krimim jambhayansi. (V.23.3)}

What one (worm) creeps about his eyes, what one creeps about his nostrils, what one goes to the midst of his teeth---that worm that we grind up.\textsuperscript{58}

Is it a verse dealing with creeping eruptions?

There are other hymns which are about the worms and their healing rites, as we see in Book-II, verses31 and 32.

There were many references of rites regarding wounds and their healing in Book IV, verse12,BookV,verse5,BookVI verse57,BookVI verse109 and in many others ---but some of them are exclusively about the skin wounds or those about the skin diseases:

\textit{Majja majajna sam dhiyaytam charmana charma rohat}

\textit{Asrik te asthi rohatu mamsam mamsena rohatu. (IV.12.4)}

Let marrow be put together with marrow; let skin grow with skin; let thy blood, bone grow; let flesh grow with flesh.\textsuperscript{59}
Fit thou together hair with hair; fit together skin with skin; let thy blood, bone grow put together what it severed, O herb.⁶⁰

This depicted the fact that skin healing was given an enormous importance in the healing of a wound as well as cosmetic outcome of the whole healing process.

As explained by the commentators like Sayanacharyya and others there were some verses for some common disorders like, vranaroga (sores of different kinds):

Idamida ba oo vesajamidam Rudrasya vesajam

Yenesumeketajanyam shatashalyamapabruvat. (VI.57.1)

Jalashenabhi shinchatajalashenopa sinchata

Jalasamugram bhesajamteno no mrira jibase.(VI.57.2)

This verily is a remedy; this is Rudra’s remedy; wherewith one may spell away the one-shafted, hundred tipped arrow.⁶¹

Pour you on the jalasa; pour in with the jalasa; the jalasa is a formidable remedy; with it do thou be gracious to us, unto life.⁶²

In this healing rite the foam of (cow’s) urine was smeared to a blocked vrana.

Not only the acquired diseases and injury or wound but congenital and familial disorders were also noted by the physicians of the Vedic era. They termed them as ksetriya roga.
If we see the following hymn an interesting feature of the astuteness of the Vedic physician about the various peculiar deformities becomes evident:

**Shybadata kunakhinavandena yat sahasima**

*Apamarga twaya bayamsarbam tadapa mrijnahe (VII.65 {67}.3)*

If we have been together with one dark toothed, illnailed, mutilated, by thee, O off-wiper, we wipe off all that.63

It appears that the above description could be about a person suffering from? Porphyria or? Ectodermal dysplasia. If that was the case then it surprises us about the power of observation of the physician of that period.

Concept of cosmetic aspect of the look was given due importance. Hair-care was an integral part of the then society. Few hymns were attributed to this matter:

**Yaste madohabakeso vikeso yenabhihasam purusam krinosi**

*Arat twadanya banani vrikshi twam shami shatavalsa vi roha.(VI.30.2)*

**Vrihat palashe subhage varshavriddha ritavari**

*Mateba putrebhyam mrida kesabhya shami.(VI.30.3)*

The intoxication that is thine, with loosened hairs, with disheveled hair, wherewith thou makest a man to be laughed at ----far from thee do I wrench [out] other woods; do thou O *cami*, grow up with a hundred twigs.64
O thou of great leaves blessed one, rain increased, righteous! As a mother to her sons, be thou gracious to the hair, O cami.  

\[\text{Devi debhyamadhi jata prithivyamsyoshadhe} \]

\[\text{Pam twa nityatne keshebhyo dringhanaya khanamasi. (VI.136.1)} \]

\[\text{Dringha pratnan janayajatan jatan varshisaskridhi. (VI.136.2)} \]

\[\text{Yaste kesohavapadatye samulo yaschavrischate} \]

\[\text{Idam kam viswabhesajyabhi shinchami virudha. (VI.136.3)} \]

Thou art born divine on the divine one, the earth, O herb; thee here O downstretcher, we dig in here to fix the hair.  

Fix thou the old ones, generate those unborn, and make longer that born.  

What hair thine falls down, and what one is hewn off with its root, upon it I now pour with the all healing plant.  

The above hymns were for the growth and fixation of the hairs. The first of the hymns were addressed to \text{kachamachi} plant which was used for the purpose of the growth of the hairs.  

There are few other hymns dedicated to the growth of hairs:
Yam jamadagnir khanad duhitre keshabardhaneem

Tam vitahavya avaradasitasya grihebhya. (VI.137.1)

Abhisuna meya asan vyamananumeyah

Kesa nada iba vardhyantam shirshanste asitah pari. (VI.137.2)

Dungha mulamagram jachcha bi madhyam yamaoushadhe

Kesa nada iba vardhyantam shirshanste asitah pari. (VI.137.3)

[The herb] which Jamadagni dug for his daughter, [as] hair increaser, that one Vitahavya brought from Asita’s house.⁶⁹

To be measured with a reinwere they, to be after-measured with a fathom: let the black hairs grow out of thy head like reeds.⁷⁰

Fix thou the roots, stretch the end, and make the middle stretch out. O herb; let the black hairs grow out of thy head like reeds.⁷¹

So from the above mentioned discussions we see the dermatological aspect of the disorders in Atharva Veda. It not only deals with the diseases but also take care about cosmetic aspect of the human body—— concept of healing was not only just for physical recovery but also for the recovery of the normal look of the body.
The compilation of the Vedic literatures was mostly finished around B.C.800. The Ayurvedic schools of Atreya and Dhanvantari were evolved very strongly around B.C.600. The intervening period of about 200 years is occupied by the different Brahmanas and Upanishads. We have no clear evidence of formation of any new concept during this period. One very much notable feature of this period is the appearance of Buddhism and Jainism which led to the beginning of revolution in all spheres of life and philosophy of the society. This must have affected the world of medicine as well. A slow evolution of emperico-rational medical thought was forming. The medical knowledge of this period was mainly based on Bhuta-vidya, Sarpa-vidya, Rasayana and Vajikarana which were very much descendent from the Atharvan concept. Gopatha Brahmana, Chhandyagya Upanishada mention subjects of importance during those days were Pitrivividya, Asura vidya etc. We shall see the state of dermatology during this period in the Satapaha Brahmana in the next few paragraphs.

SATAPATHA BRAHAMANA

Satapatha Brahmana is one of the very important and famous literatures of the later Vedic period. As regarding the authorship of this literature many authorities consider that this treatise is the work of Yajnavaljka who was supposed to be cotemporary to the Magadha king Ajatashatru. The period of composition is considered to be 6th century B.C. This Satapatha Brahmana gives many information of medical knowledge prevalent during that period. About 39 medicinal herbs were known to the then practicing healers to treat about 30 different diseases. Many skin diseases were known. The most important feature of this literature is that the concept of slesman as kapha first
appear in this tretise which (*kapha*) forms the sheet anchor of the ayurvedic fundamental principle.

Of the *sapta dhatus* forming the basic constitution of the body skin (*tvac*) has been considered as *bahiadhatus* and embryologically, skin of a baby is derived from the mother:

*Ata eva satkausikasya sarirasya tvanmamsa srgakhya bahayas trayo dhatavo matro bhabantiti smaryate.* (Sayana Bhasya 1.5.4.2.)\(^74\)

Sayana comments that *tvac* and *loma* are parts of the material body (*sthulasharira*) (Sayana Bhasya-x.1.3.4.).\(^75\)

In *Satapatha Brahmana*, skin (I.1.4.4), nail (III.1.2.3), the hair on the body (I.3.3.7) have been described while it gives an account of the external body parts.

Skin was not considered as merely an external covering but it explains that the vital air (*pranavayu*) moves in the body through hair, skin, blood, flesh, fat sinews, bones and marrow:

*Tad vai lometidve aksare/Tvag iti dve asrg iti dve meda iti dve mamsam itidve snaveti dve ashtiti dve majjeti dve tah sadasa kala atha ya etad antarena pranah samcarati.* (X.4.1.17)\(^76\)

The *Satapatha Brahmana* mentions baldness, skin diseases like *Pamana* (III.2.1.31) amongst the other different disorders.

As about the treatment is concerned, a mention of an ointment is found in III.1.3.7 where a man cures his sores by putting that ointment.

The systematic thinking of medicine had come out from the clutch of Demonic culture during the period of *Brahmana* and *Upnishada* and the seed of Ayurveda started sprouting.
5.1 THE EVOLUTION AND CONSOLIDATION OF AYURVEDA
(B.C.600 - A.D.800)

Before discussion of dermatology in the Ayurvedic literature a few lines about the formation of different schools needs to be mentioned:

Basically there are three Samhitas on which the Ayurveda is established: the Charaka samhita, the Sushruta samhita and the Vela samhita. It is usually told that these samhitas developed in the following ways:

*Bhrma* taught Ayurveda to *Daksha Prajapati*; he then taught to *Indra*, who gave it to *Bharadwaja*. Bharadwaja taught *Atreya*. Atreya taught medicine to his six disciples: *Agnivesha, Bhela, Jatukarna, Parashara, Kshirapani* and *Harita*. Each of them created *Tantram* of their own.77 *Kash* taught the subject to *Dirghatapa* who transferred it to *Dhanva* and then *Dhanvantari* received it. Dhanvantari taught the subject to six of his disciples: *Aupodhenava, Auorobhra, Poushkalavata, Gopurakshita, Bhoja* and *Sushurta*.78

So it becomes apparent that there were many schools of thought prevailing at that period and therefore there existed different kind of thinking on a same topic. A systematic approach was in need. At this juncture the samhitas of *Charaka, Sushruta* and *Vela* were formed.

The *Charaka* and *Vela* school were established on eight divisions of the traditional *Astanga Ayurveda: Sutra, Nidana, Vimana, Sarira, Indriya, Chikitsa, Kalpa* and
These two schools formed the basis of Medical practice depending on drug therapy.

The school of Sushruta—dealing mainly with the surgical aspect of treatment, initially consisted of five divisions: Sutra, Nidana, Sarira, Chikitsa and Kalpastra. Later Sushruta the junior added Salakya, Kaumara-bhritya and bhuta-vidya.

Of the above mentioned samhitas, only Charaka and Sushruta are available to us though not in its exact original form. Vela samhita has descended in highly corrupt form.

5.2 FROM MEGICO-RELIGIOUS TO AN EMPERICO-RATIONAL APPROACH --A PERIOD OF TRANSITION

The Ayurveda did not evolve in a single day. There was a long period of transition of the magico-religious practice to an emperico-rational medicine. The whole process took hundreds of years. The two pillars of the Ayurvedic medicine Charaka Samhita and Sushruta samhita opined several times that the source of Ayurveda is Atharva-veda and they considered it as upaveda or upanga related to Atharva-veda. Ayurveda was in existence during the later Vedic period though we do not find any mention in Brahmana or Upanishada. Both the school of Atreya and Sushruta mention that Ayurveda consists of eight different divisions: the Salya-tantram, the Salakya-tantram, the Kaya-chikitsa, the Bhuta-vidya, the Kaumara-bhritya, the Agada-tantram, the Rasayana-tantram and the Vajikarana-tantram. Of these eight divisions, one can see that four, viz., Bhuta-vidya, Rasayana-tantram, Agada-tantram and Vajikarana-tantram are already present in the Atharva-veda. Another four divisions took shape during the transition period.

5.3 AYURVEDA-FEW BASIC INFORMATIONS

Ayurveda, the science of life is composed of two Sanskrit words: Ayu, i.e., life and Veda, i.e., knowledge and stands for 'knowledge of life.' The different school of thoughts and contribution of different authors in the formation of Ayurveda is significant. Diversity in
opinions leads to the regular rectifications and necessary modification of knowledge on the subject. The addition and alteration at different ages enriched the Ayurveda. So before we enter into the analyses of dermatology in ayurveda, we need to have a brief look into different schools as well as authors.

5.3.1 Different schools of thought

The science of Ayurveda is mainly based on two streams: the treatment methods using only medicines and the methods of using surgery for the management of diseases. They are two different streams but not mutually exclusive. In the later period the alchemy also entered and made a permanent place in this system.

5.3.2 Different authors

There are many authors who composed a number of treatises on the subject of Ayurveda, but for the convenience of discussion we will divide the whole subject matter into two main groups:

The major authors

- Charaka
- Sushruta
- Vagbhata

Other authors

- Madhavacharya
- Shrangadhara
- Chakrapanidutta
- Others.
5.3 DERMATOLOGY IN PROMINENT LITRATURES

5.4.1. DERMATOLOGY IN CHARAKA SAMHITA:

A historical preview:

Charaka was one of the famous trios (Vrddha-trayi) of the ancient Indian medical history --- other two were Susruta and Vagbhata.

There are many controversies about the identity of Charaka and the period of his appearance. Some authorities think that Patanjali and Charaka were the same and one person:

\[ \text{Patanjalamahabhasyacharakapratisankratai} \]

\[ \text{Manobakkayadoshanam hatrehahipataye namah.} \]

---Chakrapanidutta.\(^8\)

i.e., we salute that sage Patanjali, who by renovating Paatanjal yoga shastra, the grammar of Mahabhasya and Charaka samhita destroyed kayadosha, bakdosha and manodosha. This shows that according to Chakrapanidutta Patanjali and Charaka are the same person.

It is believed that Charaka was the court-physician of the Kushana king Kanishka, but there are many controversies. According to some sources Charaka's date ranges from 2\(^{nd}\) century B.C. to 1\(^{st}\) century A.D.\(^8\) some other authority believe that Charak Samhita was believed to have arisen around B.C.400-200. Dridhabala (A.D.400), a Kashmiri savant is
The basis of Charaka’s medical school:

Charaka’s medical theory is mainly based on Naya-Vaisesik school of philosophy. The whole theory, in nutshell stands upon the balance of bhutas and dhatus. In brief the body is a composite structure composed of five elements or bhutas: ap (water), tejas (fire), vayu (air), prithivi (earth) and akash (ether). They all stay in a subtle balance (asmya) in good health. When there is imbalance amongst them (dhatu-vaismya), disease occurs. According to the Charaka School of thought, roga (diseases) are nothing but the effect of perturbed dosas. These dosas could be different depending on their effect on the body. Those affecting the physical condition of the body are comprised of vata, pitta and kapha which remain in a state of balance in health. When perturbed they give rise to fever, swelling, leprosy, tuberculosis and other diseases. For example, perturbation of vata, when located in the skin, it will give rise to roughening of the skin with numbness, redness and cracking. Similarly, rajas and tamas are the dosas which have their effect on the mind of a person. When they loose the balance anxiety, mental disorders etc., affect the person.

Dermatology in Charaka samhita

In Charaka Samhita skin and its disorders occupy an important part. Amongst the eight essences of components (saras) skin is one. Each of these Saras should be examined carefully as each of them endows a person a specific set of physical and non-physical attributes. For a healthy person skin should be smooth, soft, and pleasant. Hair should be delicate and shiny. Skin was considered as residence of sense.

Anatomically, skin constitutes the outer boundary of the body and it is composed of six layers:
• First layer: this impermeable layer protects the body and prevents water to enter inwards;
• Second layer: contains blood;
• Third layer: responsible for imparting colour to a person and plays important part in pigmented disorders;
• Fourth layer: this layer is involved in leprosy and ring worms;
• Fifth layer: involved in abscesses; and
• Sixth layer: diseases of this layer may lead to deep seated abscesses which may involve deeper structures.

Nails were considered as bones and constitutes 20 of the total 360 bones of the body.89

Developmentally skin is derived from mother and hair and nails are derived from father. Nails were considered as bones.90 Again sweat was considered as a waste product (mala) of the fat, and hairs and nails were that of bones.91

As we find in Atharva Veda, Charaka also described the organs. He described tvak (skin), loman (hairs) and nakha (nails) as separate organs. This concept is in consonance with that of the Atharva Veda (2[33]:1-7).

A medical text is not only a compendium of diseases; it reflects the prevailing health condition, types of disease patterns and treatment procedures and attitude of the society towards a particular disease of that particular period. For example, if we see any medical text written about 50 to 60 years back there must be many pages devoted to small pox whereas very few on obesity, if at all. On the contrary, any modern text devotes a lot on the problems of obesity and related disorders. Similarly, if we analyze the Charaka Samhita we find the commonly occurring ailments and the scenario of health system of the contemporary period.

Of the common infectious diseases Charaka enumerates the following disorders:92

• Grahani (digestive disorders)
• Jwara (fevers)
• Kustha
• Masurika (smallpox)
• Sosa
• Vidradhi
• Visarpa (cellulites)
• Visuchika
• Vrana (sores)

Of the non infectious diseases following were prevalent:

• Apasmara
• Arsa (piles)
• Gulma (lumps in the abdomen)
• Hradroga
• Madyataya (alcoholism)
• Panduroga (anaemia or pallor)
• Prameha (polyuria)
• Rakta pitta (bleeding disorder)
• Unmada (insanity)

So from the above list it is very much evident that skin diseases were given a considerable magnitude amongst the various ailments. A brief preview of the dermatological disorders is below before we proceed to see the detailed account of the individual diseases:

**KUSTHA**

In Charaka Samhita there are 64 references about the disease in *Chikitsa, Kalpa* and *Siddhi* sections.

While one speaks about *kustha* now a day it is considered that the word means leprosy. In the old literatures including Charaka Samhita *kustha* stands for a number of some unrelated diseases in addition to different varieties of Hansen's diseases. Charaka described seven types of it: *kapala, audumbara, pundarika, mandala, risyajihva, sidhma*
and 
kakana. Of these, first six verities were considered to be curable and the last one, i.e., 
kakana was considered incurable.

Kshudrakustha, on the other hand used to represent diverse other skin diseases like 
psoriasis, different fungal diseases, eczema etc., and they were eleven in number. 
Notably leucoderma (switra) was considered as a different disease.

MASURIKA

Masurika signifies the disease of smallpox. There are two references about this disease. 
The first mention was in Indriya, where the eruption was described as prabala gutika, 
which meant coral beads which might be hemorrhagic fluid containing vesicles and it 
disappeared with the death of the patient. The second mention was in Chikitsa, where 
different treatment procedures were discussed.

The word 'romantika' signifies measles and 'kakasya', the herpes zoster. Charaka had 
mentioned about another word—visphotaka, but it is difficult to understand whether it 
meant chicken pox or some other type of vesiculopustular eruptions, but it was 
associated with fever, thirst and erythema.

VIDRADHI

Vidradhi by description resembles carbuncles which are apt to occur in a person who is 
suffering from diabetes. Apart from this, there are seven types of boils and abscesses 
which may be found in persons with diabetes.
VISARPA

Visarpa signifies cellulitis. There are seven types of it. It can be external or internal. Depending on the perturbation of different dosas there may be variation in clinical features and their prognosis. A description in Chikitsa about visarpa gives us a picture of septicimia.

The clinical feature of visarpa due to the perturbation of pitta shows the presence of greenish hue with severe pain and suppuration. Could it be Pseudomonous cellulites?

Visarpa secondary to the disturbances of kapha may be chronic in nature with multiple ulcers and oily discharge and the patient is debilitated. This corresponds with the features of a panniculitis or some tubercular ulcer.

Kardamaka is a situation where vatta and kapha are affected dosas. This has a grave prognosis and describes a condition of septicimia with gangrene.

Chikitsa and Siddhi has 44 and 5 references about the management of visarpa. There are also references in Sutra, Nidana, Vimana and Indriya about the various aspect of visarpa.
VRANA

This term was used to describe different varieties of sores. There are about 75 references of treatment of sores in Charaka samhita in Chikitsa. There are two types – external and those secondary to internal diseases. Interestingly, it has been opined that external i.e., cutaneous sores could be a manifestation of an internal cause. It was tried to define the aetiological explanation behind each type of sores, e.g.,

\textit{Vataja} aetiology: induration, inflammation, tenderness and throbbing sensation;

\textit{Pitta} aetiology: pain, fever, suppuration and malodorous discharge;

\textit{Kapha} aetiology: mild pain, small discharge and chronic in nature.

As far as the complications were discussed at least 16 complications were noted.

Noteworthy among them are fever, rigor, blockade of blood vessels and tetanus.
Regarding the treatment, more than 16 methods were stated. Treatment differed according to the nature of the sores. Separate formulations were prescribed depending on the feature of the base of the sores—depressed or elevated. The factors delaying the healing process were also well recognized. It was recognized that foreign bodies, systemic illnesses, presence of maggots in the wound may lead to delayed healing.

Skin, hairs and nails in diseases—concepts, treatments and role in prognostication

A. Diseases of the skin and its related systems

Skin diseases occupy an enormous portion in the treatise of Charaka. After going through the treatise it becomes very clear that kushta (mainly leprosy) was considered to be the most important of all skin diseases and it had an immense effect in the society. The word kushta was used to represent mainly leprosy and many different kind of skin diseases that were similar or dissimilar to leprosy. The situation was similar as in other countries of the contemporary period.
1. Kustha

*Kustha* occurs when three dosas are perturbed. It affects four *dusyas*, namely skin, muscles, blood and lymph. *Kustha* appears due to many different causes: it may be due to an irregularity in food habits like eating when the previously eaten food had not been digested, or it could be due to intake of incompatible foods simultaneously like taking coarse grams (*hayanaka* and *uddalaka*) with milk or butter milk, or it could be an effect of excessive eating of some food materials like jaggary, honey, fish etc. It might also be an effect of overindulgence in sex or physical activities. These factors perturb the *dosas* and in consequence *kustha* affect the person. The treatise emphasizes that the *kustha* should be treated at the earliest lest it may become a killer disease. It describes the symptoms of impending danger like fever, diarrhoea, anorexia, asthenia and dropping off of the different body parts. This whole picture of the late stage reminds us of the malignant erythema nodosum leprosum.

**Classification of kustha:**

*Kustha* was classified into seven variants:

- **Kapalakustha**—this is a manifestation of perturbed *vata* and presents with mild itching and pain. It is fast in onset and with irregular margins, sensory loss and piloerection. The lesion may show oozing of pus.
- **Audumbara**—the lesions look like *udumbara* fruits that may discharge plenty of pus which may be admixed with blood and the lesions might look coppery. It may be infested with worms. It is a result of perturbed *pitta*.
- **Mandala**—here *kapha* is the disturbed *dosa*. This is insidious in onset. Clinical picture showed ulcers with thick margin and raised from the surface. Base could be white and with copious whitish discharge. Hairs in the affected area become white.
- **Rasyajihva**—this variant showed rapid progression, decay. The lesions may have different colour like blue, black, yellow or coppery. The surface may be coarse and raised with multiple boils. This type is an expression of perturbed *vata* and *pitta*.
• **Pundarika**—disturbance of *kapha* and *pitta* leads to this variety. Lesions are ulcerated and surface may show oozing of pustular and blood stained discharge and the borders are red. Worms may be present in the lesion.

• **Siddhamkustha**—these lesions are the result of disturbed *vata* and *kapha*. These lesions are composed of multiple ulcers and show greasy base and may have mild itching or pain. These may also show worms.

• **Kakana**—this is the most dangerous type and is incurable. It may show symptoms of all other types of kustha.

There are another eleven different classes of skin disorders mentioned under the heading of *ksudrakustha*. They are described below in brief:

• **Ekakustha**—this represents a skin condition where the lesion is dry and appears as fish scales and does not sweat. This is a manifestation of derangement of *vata* and *kapha*. This probably represents the tuberculoid variety of the leprosy of the present time.

• **Charmakhya**—here the skin appears as that of elephant hide due to the perturbed *vata* and *kapha*.

• **Kitibha**—here the lesion is black with rough surface and the effect is due to disturbed *vata* and *kapha*.

• **Vipadika**—this presents with pain in the hands and feet. This is due to altered *vata* and *kapha*.

• **Alasaka**—this presents with red nodular swelling with associated feature of itching and due to *vata* and *kapha*. Is it a form of urticaria or eczema?

• **Dadru**—this represents with raised lesion with erythema, itching and eruptions, possibly a description of dermatophytosis or eczema.

• **Charmadala**—this presents with red patch with pain, exfoliation and itching and it is due to deranged *pitta* and *kapha*. 
• **Pama**— eruption in these cases may be of red, white or black in colour. It is an effect of disturbed *pitta* and *kapha*.

• **Visphota**— eruptions having a delicate wall and may be white or red in colour. This is an effect of altered *pitta* and *kapha*.

• **Sataru**— painful reddish or blackish eruptions due to disturbed *pitta* and *kapha*.

• **Vicharchika**— black coloured lesion with plenty of discharge and may be itchy and due to the result of disturbed *kapha*.

**Management**

The outcome of treatment depends on the responsible perturbed *dosa* and its combination with other *dosa* (s). The end result is favourable if one *dosa* is affected. Combination of two or more *dosa* (s) indicates unfavourable outcome. The exception is combination of *vata* and *kapha*. The stage of the disease is important in the treatment outcome— an end stage disease with emaciation, anorexia; presence of maggots in the lesions forecast a difficult situation. The treatment protocol was not only composed of drug therapy but also involved dietary manipulation and other ancillary care.

**Diet:**

Diet has got a very important role in the management of diseases. Light cereals and bitter vegetables are prescribed for the patients of *kustha*. Jaggery, sour foods are to be avoided. Other helpful food items in the menu should be wild meat, green gram, and *ghreeta* along with *bhillataka, trifala* and *nimba*.

**Management of perturbed *dosa***:

• **Management of Vata disturbance**: Consumption of *ghreeta* is recommended. A lubricant enema is helpful.

• **Management of Pitta disturbance**: The evacuative measures and bitter drugs are recommended. Blood letting is done in this variety.
Management of *kapha* disturbance: In the management in this variety emesis is prescribed.

The lubricant enema is helpful in almost every dosa disturbances. Medicated smoking and snuffs are of use in some particular situation.\(^{101}\)

**Drug therapy for *kustha* patients:** Drug therapy for *kustha* in Charaka Samhita has been divided into systemic and topical therapy.

A. **Systemic measures**\(^{102}\)

This was applied by oral route. Various formulations were used by compounding many herbal components like, *daruharidra*, *rasanjana*, *patola*, *idravaruni*, *trifala*, *musta*, *atavisa*, *katuka*, *khadira*, *devadaratu*, *trikatu*, *bivistaka*, *amłaki*, *chandana*, *kiratikutka*, *nimba*, *satapiarna*, *prativisa*, *vidanga*, *simsapa*, *vasa*, *kutaja*, *haridra*, *chakramarda* along with metallic products like copper or alcoholic extracts like *madhavasaba*, or *ghreeta*. Cow’s urine was used for the preparation of many medicines.\(^{103}\)

B. **Topical measures:**\(^{104}\)

There were many methods of using topical drugs in the management of *kustha* like local application, bath, massage, anointing in the forms of oil, powder, paste, decoction etc. Here also multiple substances of different origin were used. Herbs like, *danti*, *trivrita*, *nimba*, *ela*, *kustha*, *daruharidra*, *chitraka*, *mamsi maricha*, *devdaru*, *musta*, *madana*, *trifala*, *karanja*, *chakramarda*, *rasanjana*, *lodhra*, *dhataki*, *indrayava*, *jati*, *sirisha*, *aragvadha*, *kakamachi*, *karavira*, *kutaja*, *vidanga*, *katuka*, *arka*, *tuttha*, *chitraka*, *rohini*, *swarnaksiri*, *jivant*, *manjistha*, *prithvika*, *punarnava* etc., were used to formulate the medicines. Many inorganic substances were also used like, powders of tin, lead, iron and rock salts. Many of the substances were of animal origin like, cow’s urine, juice of alligator, hog’s blood, bee’s wax etc. They all were used to prepare different anointing agents like, *sidhme lepa*, or massage like, *swetakaravira pallavadya taila*, *kanakasiri tail*, *vipadikahara taila* etc. Sun exposure was used along with some of the medicines.
2. *Switra* (Leucoderma)\textsuperscript{105}

Leucoderma was sometimes clubbed with leprosy. Sinful deeds, unethical conduct, eating of unwholesome food were thought as the causative factors for this disease. The lesion may be red or whitish and may be elevated in the center. Presence of red hairs and extensive involvement of the body were considered as bad prognostic signs--- an example of keen observation of the physicians of ancient days.

**Treatment:**

Drug therapy and procedures effective in the treatment of *kustha* may be equally applicable in the management of leucoderma. Use of purgatives and lubricant is most important part of the therapy. Sun exposure following ingestion of *malapu* (*Ficus hispida*) and jaggery was recommended in the treatment. Decoction made of *malapu*, *asana*, *priyangu*, *satapuspa* etc, and pastes made of realger, charred bone of ass, alkali derived from of *jati* flower bud, *nilotpala*, radish, seeds of *bakuchi* were also used in the treatment. Bloodletting was also done in some selected cases.

3. **Different types of swellings affecting the skin:**

Swellings may be external or internal. External swellings are caused by agents working from outside the body. Various factors may be responsible like surgical or accidental injury, change in temperature e.g., heat, contact with poisonous organic or inorganic substances, like fruits of *bhallataka*, or poisonous insects etc. Perturbation of *dosas* may lead to presentation very much different from the aforesaid features.

Perturbation of *Vata* may lead to swellings affecting skin, muscles, blood and other tissues and appears with rapidity and regresses quickly. The affected part becomes blackish or reddish in hue or may show normal colour. It may be pulsatile or mobile. The surface may be coarse and may be broken. Hairs may be coarse. There may be pain or crawling sensation on the affected area. When the applied pressure is released, it leads to the regain of the original shape and size.
Perturbation of *Pitta* may lead to swellings affecting skin, muscles, blood and other tissues and appears with rapidity and regresses quickly. The affected part becomes black, blue, coppery or yellow in colour. The overlying hairs are coppery. The lesion may have burning sensation and may lead to sweating that may have a characteristic smell. The patient may have fever, thirst and yellowish discolouration of eyes.

The affection of *Kapha* presents with swelling that appear and regresses slowly. It is immobile, and pale in appearance. Hairs on the surface of the lesion are whitish and the swelling does not regain its previous size after releasing the applied pressure. The lesion does not bleed on cutting and expresses a clear and slimy substance.

When more than one *dosa* are affected the symptoms may be the mixture of the responsible *dosas*.

**Different types of swelling:**

Swellings may differ in character, clinical feature, treatment or prognosis according to the site of occurrence:

**Swellings occurring on the head and neck region**

- *Saluka*—this type occurs inside the throat and may bring about hoarseness and difficulty in breathing.
- *Bidalika*—it may affect joints of the neck, chin, and throat and may be very painful. It may be life threatening if it encircles the throat.
- *Taluvidradhi*—this produces inflammation leading to the formation of pus and may present with pain and redness.
• **Upakusa**—this is the affection of the gum and may develop pus in the lesion.

• **Gandamala**—it may present with swellings on both sides of the neck or may be present around the whole neck.

**Swellings in other parts of the body**

• **Abscesses**—it may occur on any part of the body and usually is a manifestation of perturbed *Vata*. It may be inside the muscle when it may be large and pulsatile. When inside the fat, it is mobile, nonpainful and may express oily pus (lipoma / panniculitis?)

• **Boils and eruptions**—there is an entity called *alaji* which presents with a painful, pointed boil. When the same occurs in the onychodermal junction it is called *aksata*. *Visphotaka* are red, and may be generalized and may have systemic symptoms like fever and thirst. Another important eruption is *kakasya* which encircles the body like a sacred thread (possibly herpes zoster). Small eruptions all over the body presenting with fever, itching, thirst etc may occur due to perturbed *pitta* and *kapha* and is known as *romantika*. Similarly lentil sized lesions are known as *masurika*.

**Swelling on the groin region and scrotum**

Herniation of the intestinal coil into the scrotal sac was known as *bradhana* and was considered due to the perturbed *vata*. The swelling of the scrotum may be due to the fat or collection of urine (?) filaiasis) or pus. All swellings that contained urine, pus or fat were advised to be managed by surgical intervention.
**Swellings in the region of the anal canal**

Description of the anal fissure (*bhagandara*) is found in the Chikitsa (12:96-97) section of the Charaka samhita. Treatment consisted of surgical incision that should be healed by secondary intention.

**Swellings of the lower extremity:** 108

Varicose vein was probably described as *slipada* as it appears from the description. Swelling of the legs which also brings about fever is probably a picture of cellulites (or filariasis) which is described as *jalakagardhaba*.

**Treatment:**

Swelling due to the perturbation of *Vata* responds well to oily and hot massage. In case of *pitta* induced swellings application of heat brings relief. The swellings in the head and neck respond to head evacuation, purgation, medicated smoking, blood letting etc. Gargles are helpful for swellings inside the neck. In case of abscesses it may require surgical intervention and opening of the wound is done followed by cauterization. A swelling of the scrotum was to be treated with purgation, massage, enema etc. Surgery was sought for where appropriate especially in case of suppuration.

**Complications:**

These include fever, vomiting, diarrhoea, loss of appetite, shortness of breath, anorexia, debility etc.

**Prognosis:**

Swellings of the genitalia, those starting on the feet and moving upward or that involving the face in female are difficult to treat. When abscesses occur in the abdomen or in any vital part of the body in a very much debilitated person or in a child, the prognosis is poor.
CELLULITIS (VISARPA)

Cellulites have been described at length in Charaka Samhita. It affects a person suddenly and may spread to affect the whole body. It is due to the perturbation of one or more dosa. The clinical features as well as prognosis vary accordingly. It may affect seven body parts, of which skin is the important one. When the skin component is affected the perturbed vata is the responsible dosa. Cellulites were also classified as internal, external or both. The internal cellulitis is probably the septicaemia. When heart is affected in the process of cellulites the prognosis is poor.\textsuperscript{101}

Depending on the type of the perturbed dosa the clinical features may vary. The swelling may be reddish, blackish and blister may form. The blister may lead to the oozing of a serous or haemorrhagic fluid. The associated features are fever, lack of appetite, fainting, body ache, yellowish discoloration of eyes. The whole thing may lead to an ulceration which may take long time to heal. If the condition deteriorates, the affected part starts the process of necrosis and the part may become insensitive to touch. There is a variety of visarpa where the lymph nodes (granthi) are enlarged and become painful, red and swollen and in the course of the diseases patient develops systemic symptoms.

Management:

Emesis, use of lubricants and blood letting is done along with the drug and dietary manipulation. Different preparations made of and from madana, madhuka, nimba, kutaja, patola, pippali, musta, chandana, upala, sariva, amlaki, kiratatika, lodhra, nagkesara, padmakesara, prapaundarika, draksha, parpataka, different types of ghrita for systemic administration. For diseases of lesser intensity local applications were suggested. They were prepared from udumbara, madhuka, padmakesara, kadali, lotus, kali, durva, sankha, nalaka, harenu, satavari, vidari, plaksa, triphala, usira, khadira, aragvadha, ghrita etc. Peas, lentils, rice etc. were used along with ghrita to make a paste for local application.\textsuperscript{109}
Different types of sores were discussed in the Chikitsa portion of the Charaka Samhita. Sores could be due to internal or external causes. Perturbations of the dosas were held responsible for the sores of internal causation, whereas injuries of various natures were for those of that were of external causation. Sores were also classified into twenty types depending upon the clinical features, nature of the sores, condition of the surface, presence of discharge etc. Sores of vataja, pitaja and kaphaja origin were found to have different clinical features as well as treatment.

Complications as well as prognosis were also well defined. The age of the patient, presence of foreign body, presence of maggots, fractures of the underlying bones, wrong method of bandaging etc. were considered important factors responsible for the prognostication.

Treatment consisted of both surgical as well as medical measures. Opening of the sores was advised with a sharp instrument in Chikitsa section of 25:55-60. Probing of a wound was practiced when the wound were baggy with copious discharge and a small opening and situated on a nonvital structure. Medical measures were consisted of bandaging, putting pastes and different types of oils and other local applications. These local applications were made from plant products like linseed, bala, guduchi, madhuka, tila, nyagrodha, utaja, udumbara, asvattha, chandana, jivanti, gojihva, durva, kampillaka etc., and animal products like fish fat and milk, ashes of hoof, hair, skin and bones of different animals.

An interesting feature in the treatment of sores is cauterization. In case of a bleeding sore cauterization were done by hot metal, oil, bee’s wax etc. It was also specified that the procedure should not be done in children, weak persons and in very weak.
B. Involvement of the skin in diseases of other system:

In Charaka Samhita the involvement of the skin in other system of diseases were keenly observed. This observation was important in the diagnosis, management and prognosis of the diseases. Some of such examples are enlisted below:

(i) *Rakta-pitta*:- This is a type of bleeding disorders induced by perturbed *pitta*. Reddish, greenish or yellowish discoloration of body and bodily secretions like sweat, saliva, urine, stool etc., are important manifestation of the *rakta-pitta*\(^\text{112}\).

(ii) *Gulma*:- in these disorders there are lumps in the abdomen which are due the singular or combined effect of *dosas*. In *vataja gulma*, there may be roughness of the skin and nails as well as blackish or reddish discoloration of the face. In *pittaja* variety, green or yellow discolorations may appear in skin, nail, urine, stool etc. and there may be flushing of the face and body. In *kaphaja gulma* there may be pallor of the skin and nails\(^\text{113}\).

(iii) *Diabetes*:- the signs and symptoms are vividly described in Charaka Samhita in the *nidana* as well as *chikitsa* sections. In diabetes, as described in the Samhita, there may be hyperesthesia or anesthesia of the extremities, change in body odor and matting of the hairs. There may be multiple boils and it has been opined that these boils should be dealt with carefully and surgically by expert hands\(^\text{114}\). *Lodhra, puskaramukha, sati* etc., were used in the treatment of the skin problems. Preparation made from *ela, aguru, chandana* were applied on the skin in the management of the diabetes\(^\text{115}\).

(iv) *Epilepsy*:- this has been described as *apasmara*. Skin and nails may show blackish or reddish discoloration in *vataja* variety of *apasmara*. In case of *pitaja* origin skin and nails show yellow discoloration, whereas in *kaphaja* variety, skin and nails are pale\(^\text{116}\).
(v) **Abdominal diseases:**- an abdominal disease with distention has been termed as *udara* in Charaka Samhita. There are about eight types of *udara*: *vatodara, pittodara, kaphodara, sanipatodara, udakodara, plehodara, baddhodara* and *chhidrodara*. In each types of the disease, there are some skin manifestations. There may be blackish discoloration of the nails with prominent veins on the anterior abdominal wall (?? Caput medusae). In *pittodara* there may be yellowish and/or greenish discoloration of the skin, nails, urine and stool. Veins on the abdominal wall are prominent and there may be yellow, copper-colored or greenish streaks on the abdominal wall. Moist skin in a patient with severe abdominal disease may be an indication of grave prognosis (? shock).117

(vi) **Piles or arsa :-** this has been described to affect penis, female genitalia, throat, ear, eye lid skin etc. This is probably not a description of haemorrhoids of the anal canal what we understand now a days, but that of haemangiomas.

(vii) **Anaemia or pandu roga:-** it has been described that loss of hair and dull skin are manifestation of the anaemia. It may ruin the colour of the body. The treatment was not only focused on the relief of anaemia but was also on its varied aetiology. Treatment was done for heart diseases, splenic enlargement, piles, internal haemorrhage, bleeding from female genitalia etc.118 Patient were also administered iron preparation along with cow’s urine—which showed a clear knowledge about the aetiologcal background of a disease at a time where there was no sophisticated laboratory support to the clinician.119

(viii) **Jaundice or kamala: -** the eyes, nails or skin turn yellow in this disorder. When there is passage of white stool in a patient of jaundice, it is concluded that the passage bile has been blocked by *kapha*. We also get a probable description of billiary jaundice in the description of a disease termed as *halimaka* where there is greenish or blackish discoloration of the body along with fever, debility etc.120
C. Skin signs in forensic aspect of medicine:

Examination of the skin was given enough importance in the forensic aspect of diseases, especially in cases of poisoning. The poisons from animal origin may produce goose-flesh and swelling of the body. There may be rounded patches on the body (? urticaria). In cases of subdued poison there may be different eruptions and boils on the skin. There may be bluish discoloration of the lips and gums and fall of hairs.

D. Skin manifestation of bite reaction from animals:

- **Snake bite:** the different symptoms of snake bites from different varieties of snakes were noted carefully in Charaka Samhita. There are three types of poisonous snakes: darvikara (hooded), mandali (coiled), rajiman (stripped). A careful observer could detect whether the bite was from male or female snake, how old was the bite, whether it was from a cross bred snake etc. The color of the site of the bite was important the diagnosis, e. g., yellowish and swollen in case of mandali, lesion discharging oily or bloody discharge in case of rajiman etc.

- **Bites from other animals:** spider bite may give rise to a swollen and blackish lesion along with fever and exudation. Rat bite may lead to goose-flesh and swelling with discoloration. Lizard bite may show blackish discoloration. In case of scorpion bite the area may have a severe burning sensation. Frog bite may show marks of fangs and the area may be painful and swollen. Mosquito bite may be itchy and when severe may resemble insect bite. Sting from a bee may be oozing in nature and blackish.

- **Treatment**

  In the treatment of poisoning, among the various methods applied some are very interesting like, use of antidotes (patois), tourniquet (bandana), irrigation, heating (use of cauterization??).
5.4.2 DERMATOLOGY IN SUSRUTA SAMHITA:

A historical preview:

Susruta Samhita mainly deals with the surgical aspect of the diseases. There are over 120 surgical instruments, 300 surgical procedures described in this Samhita. It is said that Susruta Samhita is the compilation of the knowledge bestowed upon Susruta by Dhanvantari:

\[ \text{Athato vedotpatti namadhyayam vyakhyasam} \]

\[ Yathovacha bhagaban Dhanvantarihi Sushrutaya. } (\text{Sutrasthanam 1:1}) \]

The compendium named Susruta Samhita, which we see today, is actually made up of two portion derived from two different authors of two different periods: the early portion was composed by Susruta the elder which is named as Salakya Tantra and the later portion or the utara tantra was composed by the Susruta the younger. The earlier portion was probably composed before 6th century B.C. as it was cited in the Sathapatha Brahamana, whose actual date is not known but it was composed during 6th century B.C. Susruta’s original work was composed of five parts and dealt mainly with surgical aspect. The later portion or Uttara-Tantra added the rest of the portion which was composed of subjects of diagnostics, paediatrics, practice of medicine etc.

Bower’s manuscript is an invaluable source of the history of ancient Indian medicine. The date of this manuscript is not clearly known, but from paleographic evidences it was probably composed during A.D. 300 to A.D. 375. This manuscript has five different parts. The first part contains 31 leaves, second part contains 5 leaves, third part contains 4 leaves, fourth part contains 6 leaves and fifth part contains five leaves. Of these five parts, the first part is further subdivided into three parts. The second subpart or Navanitakam is composed of 16 chapters. One chapter of it is devoted to the formulae of hair washes.\[ ^{125} \]
The basic principle of Susruta’s medical school:

The basic principle of health and diseases, according to the Susruta’s school of medicine lies on Vata, Pitta and Slesman (Kapha). It has been told that these three elements are the cause of formation of the physical form of the body:

\[ \text{Vatapittaslesmana eba dehasambhabahetabaha. (Sutrasthanam 21:2)} \]

The perturbation of these three elements leads to the destruction:

\[ \text{Ta eba cha vyapannaha pralayahetabaha. (Sutrasthanam 21:3)} \]

\[ \text{Sarbesancha vyadhinang vatapittasleshan eba mulam. (Sutrasthanam 24:8)} \]

These three dosas have their own places in the body. For instance, pitta stays in some major places like stomach and intestines and some minor places like liver, spleen, heart eyes, intestines and skin:

\[ \text{Pittasya yakritpleehanouhridayam drististak purbaktancha (Sutrasthanam 21:7)} \]
So it is seen that skin was considered as one of the very important site for one of the main three dosas of the body and perturbation of the dosas are the mainstay of any disease state.

The other aetiology of any disease is *dukkham* (? sorrow or? state of ill feeling of the soul) which may be of three types:

\[
Pravhihitam tad dukkhasanyaogo vyadhiriti
\]

\[
Tachachadukkhangtrividham
\]

\[\text{adhyatamikadhibhautikmadhidaivikamiti.}(Sutrasthanam 24:3)\]

The diseases are divided broadly into main seven classes which are related with these three *dukkham*:

\[
Tatwa saptavidhe vyadhabupapnipati
\]

\[
Te punaya saptavidha vyadhayaya.
\]

\[
Tadyathadibalapraittaha janmabalapraittaha dosabalapraittaha
\]

\[
Sanghatabalapraittaha kalabalapraittaha daiabalapraittaha
\]

\[
Swabhbabalapraittaha iti.(Sutrasthanam 24:4)
\]

These seven classes comprise the origin or root of defects of all diseases, like it has been considered that leprosy is due to defect in the *adibala* (defect in the parental procuring substances).
Whenever a *dosa* is perturbed, it moves and may affect a body site and depending on the part of the body the disease starts developing;

*Kupitanang hi dosanang sarire paridhabatanam yatra*

*Sangaha swabaigunyaadyadhistropoyayate. (Sutrasthanam 24:10)*

For example, when the *vata* within the skin is perturbed there may be discoloration, dryness abnormal or impaired sensations and dehiscence of the skin may occur:

*Baibarnam sphuranamraukshanam suptim chumchumayanam*

*Takstho nistodanang kuriyat tagbhedang paripotanam. (Nidansthanam 1:17)*

**Dermatology in Susruta Samhita**

In Susruta Samhita skin was considered to have an important role in the disease processes. It was not only an important organ affected by many disorders of its own, but also it may be affected in other diseases and may bear clinical sign and symptom in other disorders.

**A. Embryological and Anatomical aspects:**

Embryologically, skin and nails are derived from paternal portion of the embryo (*garbha*);

*Garbhasyakesasmashrulomasthinaadantashirasnayudhamaniretahaprabhitini sthirani pitrijani. (Sarirasthanam 3:19)*
When life is established by the action of the semen, fire, blood etc. the seven layers of skin begin to form. These seven layers have got their own name and characters. They are the sites of different diseases too. For example, the forth layer is known as *tamra* and is the portion affected by *kilasakustha*, whereas the fifth layer or *vedini* is the site of *kustha*, *visarpa* etc.:

*Tasya khalbebangprabittasya shukrasonitasabhipachyamanasya ksirasyebsantanika saptotwacho bhabanti.*

......chaturthitamranamastabhagapramana vividhakilasakustadhisthana.

*Panchamivedini nama brihipanchabhagapramana  
kusthavisarpadhisthan.* (Sarirasthanam 4:3)

It was also observed that the number of hairs never increase and even if the body is decaying the nails and hairs grow as usual;

...... *Romakupascha na vardhate kadachana.* (sarirasthanam 4:55)

* Sarireksiyamanehapi vardhete dwabimou sada.  
  Swabhabang prakiting kritwa nakhakeshabit stitha.* (sarirasthanam 4:56)

**B. Diseases of the skin in Susruta samhita:**

As about the different diseases and their descriptions are concerned, this Samhita contains almost all as we found in Charaka Samhita. The approach is here mainly surgical.
The *Nidanasthanam* deals mainly with the diagnosis and description of different diseases. In the diagnosis of diseases examination of the skin was an important part and hence we find the changes in the skin and nails in almost every chapters of the *Nidanasthanam*.

- Susruta Samhita extensively deals with different types of ulcers (*vrana*). It says that if the *vayu* in blood is perturbed, *vrana* is formed. When the *vata* in the blood vessels are perturbed then varicosity of the veins occurs:

  \[\text{Vranangsch}a \text{ raktago granthin sashulan mamsasansritaha}\]
  \[\text{Tatha medahashritaha} \text{ kuryatgranthim mandarujovranan}\]
  \[\text{Kuryachhiragataha} \text{ shulam shirakunchananapuram. (Nidanasthanam 1:18)}\]

- If *vata* is disturbed along with blood and blood flow there may be hyperesthesia, anesthesia and pain sensation of the affected area. (*Nidanasthanam1:28*)

- *Vidhradhi* is a type of sore which may affect the skin, bones, muscles and fat and may produce swelling and oedema (*Nidanasthanam9:3*)

- *Visarpa* results from the perturbation of the *dosa* staying within blood, skin, and muscles. It may produce swelling and shift from one lace to another and hence called *Visarpa*:

  \[\text{Twangmamsosonitagataha kupitastu dosaha}\]
  \[\text{Sarbangasarinamihasthimatmalingam}\]
There may be different types of Visarpa and their descriptions are elaborated in the 10\textsuperscript{th} chapter of the Nidanasthaman.

- The 11\textsuperscript{th} chapter of the Nidanasthaman describes different types of tumours and glandular enlargements:

\begin{quote}
\textit{Athato granthypachyarpudgalagandanang ndanam bykhasam. (Nidanasthamam 10:2)}
\end{quote}

Details of the clinical features of the above conditions are described in this chapter.

- Enlargement of different organs have been described in \textit{Vriddhi-Upadamsha-Sleepadnidan} portion of the Nidanasthaman. There is a detailed description of the hydrocele in the sloka 5 of this chapter.

- There are descriptions of different types of genital ulcerative disorders in this chapter. These diseases have been classified into five subclasses: \textit{vataja, pittaja, kaphaja, sannipatik} and \textit{raktaja}. The clinical picture varies according to the perturbed types. (\textit{Nidanasthamam 12:7-13})

- \textit{Sleepada} is a disease depicting swelling of the legs. It may be associated with fever and glandular enlargement. This mimics the clinical features of the filariasis. This (\textit{sleepada}) may affect hands and feet. It may affect ear, nose, eyes and lips. The classical description of verrucous growth on the swollen part as is found in long standing lymphoedematous legs are also clearly stated in the Susruta Samhita. (\textit{Nidanasthamam 12:14-20})
Ksudraroga: Under this heading many diseases are described. Many of them are primarily skin diseases and some of them are skin involvement in other diseases:

(Nidanasthanam: 13)

(i) There are different types of boils and sores. All of them have different clinical features and outcomes. Ajagallika is found in small children. There are other varieties like yavaprakhya, andhalgy, vivrita, kachhapika, valmik, indravridda, panasika, pashangardabh, jalgardhabh, kaksha involving the axillae etc. (Nidanasthanam 13:2-13)

(ii) Cracked soles were known as padodari. (Nidanasthanam 13:22-23)

(iii) Furuncles were known to occur all over the body and was also known as Visphotak. (Nidanasthanam 13:14)

(iv) Chipparoga is paronychia. Intertrigo of the toe webs was known as alasak. (Nidanasthanam 13:16&25)

(v) Acne vulga is was described as yauvanapidaka. (Nidanasthanam 13:31)

(vi) Phrynodema or kratotic follicular diseases were known as padminikantaka. (Nidanasthanam 13:32)

(vii) Verrucous disorders were known as charmakeel. (Nidanasthanam 13:37)

(viii) Paraphimosis occurs when there is forcible retraction of the prepuce as happens while trying for an intercourse with a girl of immature age group or from manual trauma. This was known as avapatika. (Nidanasthanam 13:40)

(ix) Phimosis was described as niruddhaprakash. (Nidanasthanam 13:41)

(x) Masurika is a description of pox where it may be associated with fever and pain. (Nidanasthanam 13:30)

(xi) Naevi and other birthmarks have been described in this section. (Nidanasthanam 13:33-36)
Disorders of hairs were also given its due importance. *Indralupta* was assumed to occur as a result of perturbation of all the three *dosas*. Graying of hair was thought of an effect of disturbed *pitta*.

**Kustha (leprosy and other similar skin disorders)**

Susrut Samhita has devoted an entire chapter (*Nidanasthanam*, chapter 5) on *kustha* along with the discussion of it in many other chapters.

There may some premonitory symptoms of *kustha* like sudden goose-flesh, itching, profuse sweating, impaired sensation of some organs, dissemination of the existing ulcers and blackish blood. (*Nidanasthanam 5; 2*)

Kustha was classified into 18 different types: of these 7 are called *mahakustha* and rest of the 11 are called *kshudrakustha*. Different types of *mahakustha* are *aruna, oudumbara, rishyajihva, kapal, kakanak, pundark* and *darukushtha*:

\[ Tatra \ sapta \ mahakusthyanyekadasha \ kshudrakusthanyeebastadasha \ kusthani \ habanti \]

\[ Tatramahakushanyarunoudumbaryajihwakapalakakanakapundarikadadruskusathaniti \]

(*Nidanasthanam 5:3*)

*Kshudrakustha* is further subdivided into *sthularuksha*, *mahakustha*, *ekakustha*, *charmadalanda, visarpa parisarpa, sidhma, vicharchika, kitim, pama, rakasa*:

\[ Kshudrakusthayapi \ sthularuksangmahakusthamekakustham \ charmadalang \]

\[ Visarpaha \ parisarpahasidhma \ vicharchikaha \ kitimang \ pama \ rakasa \ cheti. \]

(*Nidanasthanam 5:4*)
Different clinical features along with resultant deformities have been vividly described in the Susruta Samhita.

- **Kilasa (Leucoderma)**

The word *kustha* was used to describe not only leprosy but many other skin diseases. *Kilasa* was considered as a type of *kustha*. From description it appears to be vitiligo. It has been said that *kilasa* involve only the skin whereas *kustha* involves skin as well as blood. *Kilasa* is never a discharging disease but *kustha* may discharge secretion.

It is very interesting to note that Susruta Samhita has very clearly mentioned that vitiligo involving palms and soles anal orifices are difficult to cure so also the white patches produced as a result of burn:

\[
\text{Kilasamapi kusthabikalpa eba} \\
\text{Tat trividham—vatena pittena sleshmana cheti} \\
\text{Kustha kilasayoantarang — taggatameba kilasam parisrabi cah} \\
\text{Tadbatena mandalamaranamparum paridhbamsi cha} \\
\text{Pittena padmapatrapratikasam saparidahàncha sleshmanapi swetam snigdham vahalam Kandumachcha} \\
\text{Teshu sambandhamandalamante raktaroma cha sadhyamagnidagdhancha.}
\]

*(Nidanasthanam 5:12)*

**Skin manifestations in other diseases:**

Examination of the skin was an integral part of the full examination of the patient. Skin manifestations of different diseases were noted and described in the Susruta Samhita vividly and carefully.
**Piles:** There are different types of skin manifestations in piles. Where *vata* is perturbed the skin and nail colour may change to a blackish hue. When the *pitta* is perturbed the colour may be yellowish and when *kapha* is involved the colour may be whitish. (*Nidanstanam 2:7-9*)

In Susruta Samhita, the word *arsha* probably used not only to describe piles, but also for the description of many diseases of vascular origin as it has been said that *arsha* may occur in throat lips or palates. There has been a description of a condition where *arsha* may appear in skin and is known as *charmakeel* (? varicose veins? haemangioma). (*Nidanstanam 2:15*).

**Diabetes:** There may be some premonitory symptoms, like burning sensation of palms and soles, cold skin, tangling of hairs and increased growth of nail:

\[Tashantu purvarupani hastapadataladahaha snigdhapichhil\]
\[Guruta gatranang madhursuklamutrata tandra sadaha pipasa\]
\[Durgandhascha swashtalugalajuwhadanteshu malotpattih\]
\[Jatilibbabahakeshanang vriddhischa nakhanam. (Nidanasthanam 6:4)\]

There may be many types of boils (*piraka*) in a patient of diabetes and it is more common in patients with obesity. (*Nidanasthanam 6:17-27*).

**Abdominal disorders:** In case of *Pittodara* (? hepatic disorders) there may be yellowishness of nails and skin. In *kaphodara* there may be whitish nails and skin.
**Treatments:**

Susruta Samhita contains many surgical procedures which surprises us even today. Some procedures like plastic reconstruction of the injured nose, grafting of muscles (full/partial thickness skin graft of today) from cheek to the ear to reconstruct it, the different methods of cauterizations, treatment of piles, fistula and fissure around the anus conclusively prove the high standard of medical practice of that period.

It has been clearly suggested the different types of incisions for different body sites and that a faulty surgical incision may be responsible for the formation of keloids/hypertrophic scars:

\[ Tatra \text{ bhru-ganda-sankha-lalatakshipoutousta-dantabestha-kaksha} \]  
\[ -kukshi- \text{ bankshaneshhutir yakchhed uktaha.} \]

\[ Chandramandalbacchhedan \text{ panipadesu karayet} \]

\[ Ardhachandrakritingschapi \text{ gude medhre cha buddhiman.} \]

\[ Anyatha tu \text{ shirasayuchhedanadatimatrang bedanachirad} \]

\[ Vranasamroha \text{ mangsakandipradurbhavascheti} \ldots \text{(Sutrasthanam5:10-12)} \]

Dietary manipulations, blood letting were practiced in the treatment of various diseases. Suction was also done in some disorders:

\[ Niruddheha sthini ba \text{ vayou panimanyena darite} \]

\[ Naring datwtasthani bhishak chusayet pawanam bali. (Chikitsa sthanam 4:9) \]

Apart from the above methods, fomentations, application of many herbal as well as non organic preparations were used in the treatment of many diseases.
5.4.3 Vagbhata’s work on Ayurveda

A. HISTORICAL PREVIEW:

The third member of the vriddha-trayi is Vagbhata. Actually there were two Vagbhahatas. The Vriddha Vagbhata (or Vagbhata I) wrote a compendium assimilating both Charaka and Susruta Samhitas and the work was known as “Astanga-Samgraha”; the work was divided into six sthanas (divisions).

He was the first to strive to coalesce all available works upto his time of the two major texts, namely Charaka and Susruta in to a manageable single text though it also contained a large amount of original material from his own work. Vagbhata II (or Swalpa Vagbhata) was known for the authorship of “Astanga-Hridaya”. In this compendium he not only quoted from Charaka and Susruta but also from other works like Bhela, Nimi, Kasyapa, Atreya, Agnivesha etc. (Astanga-Hridaya Sutra Sthana I:4-5). He also mentioned very clearly that the work of Astanga Samgraha was the main source of his work. This work was translated in Arabic and was known as “Atank”. Vagbhata I was believed to be of 6th century or early 7th century, whereas work of Vagbhata II was probably of 8th century.

B. THE THEORETICAL BASIS OF VAGBHATA’S WORK:


He described in detail about tri-dosas and the effects of their perturbations. (Astanga-Hridaya Sutra Sthana I:8)

In case of perturbation of vayu, skin may turn darker and in case of pitta, it may show a yellowish hue whereas in case of kapha it becomes whitish. (Astanga-Hridaya Sutra Sthana XI: 6-8)
Skin is one of the components which were termed as *shakha* and this *shakha* is the place of all external (*bahya*) diseases and that is why *galaganda* (enlargement of glands around the neck), melasma, tumours are called *bahyarogas*. *(Astanga-Hriday-Sutra Sthana XII: 42)*

According to Vagbhata, the disparity and/or faulty combination of the environment and *karma* involving health, psychological state and words (*bachik*) is the sole cause of disease. The perturbation of *dosas* is equally important in this regard. Diseases are of two broad types: *Nija* (internally caused) and *Agantuka* (externally caused). Some diseases arise due to the affection of the health and others the psyche. For example, fever, cough etc. are body dependent whereas fits, senselessness are dependent on the psyche. *(Astanga-Hriday-Sutra Sthana I: 18-20)*. It has also been mentioned that most of the skin diseases are contagious. *(Nidana Sthana XIV: 38)*

**C. DERMATOLOGY IN VAGBHATA'S WORK:**

**Skincare in everyday life:**

Vagbhata not only described different skin diseases and their management, he also gave a brief but clear directives in *Dinacharya* portion of the *Sutra-Sthana* regarding the day-to-day skin care so that skin remains healthy and diseases are prevented.

He advocated oil massage to skin to keep its glow. *(Astanga-Hriday-Sutra Sthana II: 8)*.

Massage is mandatory after performing daily exercises. *Udvartan* or massage of the body with amlaki is valuable to the skin. *(Astanga-Hriday-Sutra Sthana II: 12&15)*.

Trimming of the nails, beard and moustache were also recommended as a part of the hygienic measure. *(Astanga-Hriday-Sutra Sthana II: 31)*.

It is very fascinating to note that the skin care differed according to the changing atmosphere or season. Use of perfumes and toiletries were suggested according to the season. *(Astanga-Hriday-Sutra Sthana III)*
Dermatology in Astanga-Hridaya:

Though Vagbhata’s work is mainly composed of the then prevalent Ayurveda texts, but there are some places where skin diseases are discussed with some more connotation.

(a) **Xerosis**— skin may become dry as a manifestation of dehydration due to hypohydrosis and hairs on the body may fall and skin may show chapping. (*Astanga-Hriday-Sutra Sthana XI: 23*)

(b) **Melasma** — is described as *byanga* and it is type of *bahyaroga*. (*Astanga-Hriday-Sutra Sthana IV: 19-20 & Uttara-Sthana XI: 27*)

(c) **Pruritus**—if fat (*sneha*) in food is taken in inappropriate amount or with inappropriate blend, a person may develop itching. (*Astanga-Hriday-Sutra Sthana XVI: 34*)

(d) **Pruritus of pregnancy and striae graviderum**— it has been vividly described that during seventh month of gestation a lady develops *kikkis* (striae) and pruritus of pregnancy as the foetus is fully formed and developed. It has been cautioned that one should avoid scratching to avert cracking of the skin of the abdomen and breast. (*Astanga-Hriday-Sharira Sthana: 64-68*)

(e) **Varicose-veins and haemangioma**— has been described as *arsha* which may affect anal canal as well as other sites like nose, ears etc. They have been divided into congenital and acquired. It has also been mentioned that these may produced secondary to chronic constipation and pregnancy. (*Astanga-Hriday-Nidana Sthana VII: 2-16*)

(f) **Umbilical granuloma**— it has been said that *arsha* present in the umbilicus may be slimy and soft. This description corroborates with that of umbilical granuloma. (*Astanga-Hriday-Nidana Sthana VII:58*)

(g) **Warty vascular growth (? angiokeratoma, warty haemangioma**— there are some rough (*karkasha*) growth on the skin due to the perturbed *kapha* that are fixed and known as *charmakeel*. They may be of skin color or blackish red depending on the type of the perturbed dosas. (*Astanga-Hriday-Nidana Sthana VII:59-60*)
(h) **Cellulites** - this has been dealt with in detail in the *Nidana Sthana* in the chapter 13. Clinical picture and outcome differed according to the type of perturbed *dosa*.

(i) **Pediculosis** - the worms (which include all types of small organisms) may be internal and external. The external ones are very small and have many legs and they cling on to the hairs and garments. They are known as *yuka* and *liksha*. Their infestation may lead to pustules and enlargement of glands. This is very clear and stunning description of different types of pediculosis. (*Astanga-Hridaya-Nidana-Sthana XIV: 39-41*)

(j) **Herpes labialis** - in the Uttara-Sthana a disease, known as *jalarbbud*, of the lip had been described in which there might be vesicular eruptions due the disturbance of the *vata* and *kapha*. (*Uttara-Sthana XXI: 11*)

(k) **Mumps (or infected lymphadenitis with fever)** - a disease has been described in the name of *gandaalaji* in which there may be fever associated with swelling of the one cheek with inflammation. (*Uttara-Sthana XXI: 11*)

(l) **Scaly scalp** (seborrhoeasis capitis, psoriasis of the scalp) - *darunak* is a disorder of the scalp which may lead to fine cracking of the skin of the scalp may lead to itching and dryness and loss of hairs. This may be the description of seborrhoeic dermatosis or psoriasis or tinea capitis. (*Uttara-sthana XXIII: 13*)

(m) **Hair diseases** - *indralupta* is a condition where hairs on the scalp are lost and regrowth becomes impossible. *Khalitya* is another disease where hairs are lost. The difference between the said two conditions is that in *indralupta*, hairs are lost suddenly whereas in *khalitya* hairs are lost in slow manner. (*Uttara-Sthana XXIII: 14-15*). In some *khalitya* the affected area may look as if burnt. This is due to the perturbation of *vata*. Hair does not grow anymore. This is probably a description of scarring alopecia (? Discoid lupus erythematosus / scarring secondary to folliculitis decalvans?) (*Uttara-Sthana XXIII: 16*). Graying of hairs has also been described in the *Astanga-Hridaya* in Uttaraksthana (17-21).
Elephantiasis—has been described as *sleepada* in *Uttara-Sthana* in chapter XXIX. It usually affects one of the lower limbs. The limb may be dry and cracked, dark in complexion, painful and may have growth on it. It may occur on lips and ears also. (*Uttara-Sthana* XXIX: 15-17).

Ulcers and sinuses—if a pus-filled lesion is not incised it may lead to sinus formation. It may secret foul smelling discharges. If a *salya* (? instrument or ? weapon) is left within a wound, it may lead to sinus formation. (*Uttara-Sthana* XXIX: 20-23).

Acne vulgaris—was termed as *Mukhadushika* in *Astanga-Hridaya*. It appears in young age groups and occurs as a result of disturbances of *kapha* and *vata*. (*Uttara-Sthana* XXXI: 7).

Phrynoderma—had been described as *Padmakantak* and they were painless lesions. (*Uttara-Sthana* XXXI: 8).

Corns— if sole of the foot is injured by gravels or thorns it may lead to *kadarroga*. (*Uttara-Sthana* XXXI: 20).

Paronychia, intertrigo of the toe-webs—is a condition in which the area around the nails is affected and may lead to fever. This is known as *upanakha*. Injury to the nails may lead to the darkening of the nails along with dryness. This is known as *kunakha*. Itching may occur as result of contact with mud in between the toes and the condition is known as *alasa*. (*Uttara-Sthana* XXXI: 22-24).

Birth marks and moles—also received importance in the *Astanga-Hridaya*. There are mentions of melanocytic naevus in the name of *tilakalak, masak* etc. There is description of reddish birth marks which may be port wine stains. *Lanchhan* are whitish or blackish macular or patchy congenital lesions that corroborate with the features of navus achromicus and melanocytic naevas or café au lait macules respectively. (*Uttara-Sthana* XXXI: 24-26).
(u) **Urticaria- Utkotha** is a condition appears as a result of disturbances of *pitta* and *kapha* secondary to incomplete vomiting done for therapeutic purpose. These lesions are very much itchy, annular, multiple and oedematous. They vanishes after some times and usually do not come back. If they are recurrent then they are termed as *kotha*. (*Uttara-Sthana XXXI: 30*).

(v) **Kustha (Leprosy and some other similar skin diseases)-** as in the other important texts of Ayurveda, *kustha* had been given a very important place among the different diseases. It has been described as one of the eight *maharogas* (*Nidana Sthana VIII: 29*). It has been said that diets of improper combination, act against holy men, and misdeed of the present and/ or past life may lead to *kustha*. If not treated, it leads to degeneration of the body. There is mention of worms, which are responsible of all these destruction. Surprising enough that at that point of time this sort of thinking about infection is very rare in the history of medicine. There are altogether eighteen types of *kustha*: of these seven are called *mahakustha* and rest is known as *kshudra kustha*. About symptomatology of *kustha*, prodormal symptoms like, tingling sensation, formication, itching, prolongation of time for ulcer healing etc. is brilliantly described. Of all the diseases described under the broad heading of *kustha*, there are some diseases which are not directly related to leprosy. For example, *Sidhmkustha* is probably pityriasis versicolor (*Nidana Sthana XIV: 19*); *dadrukustha* is in all probability ringworm infection (*Nidana Sthana XIV: 21*); *pama* is a possible description of scabies or pyoderma (*Nidana Sthana XIV: 23-25)* etc.

(w) **Switra (Leucoderma)-** it has been described in the same chapter with leprosy. It appears as a manifestation of similar reasons. But very interestingly the differences between leprosy and leucoderma have been mentioned: *switra* (vitiligo) is nondischarging, whereas *kustha* may show discharges, *switra* affects only *rasa, rakta* and *mamasa*, whereas *kustha* affects all the seven *dhatus*. This emphasizes that the effect of *kustha* is more widespread than *switra* ---- an idea in consonance with that of present days. (*Nidana Sthana XIV: 34*). The most interesting thing is the observations about the features considered about prognostication about the *switra* (leucoderma). It has been clearly mentioned that if the lesion is not very old, if the hairs within the lesion are not
depigmented, if they are not confluent and if they are not the result of any burn injury then the treatment is easier. It has even been advised that even if the lesion is not old but situated in the anal region, palms or lips (all the nonhair bearing areas) then treatment should not be administered as they are not responsive to treatment. (Nidana Sthana XIV: 37).

(x) Other skin diseases- there are many skin diseases mentioned in the kshudra roga bijnaniya chapter of the Uttara-Sthana of the Astanga-Hridaya. There is mention of many papulonodular eruptions like ajagallika, yavaprakkya, panasika which may be different types of folliculitis or furunculosis. Kaksha may be similar to hidradenitis suppurativa. Valmikaroga is most likely identical with tuberculosis verrucosa cutis or infected warts or some other verrucous growth with features of suppuration.

Skin manifestations in other diseases:

Skin was observed with keen interest in diseases of other systems. The erythema and goose flesh in fever, sweating during fever were noted. (Nidana Sthana II: 11-20) The change in the growth of nails and hairs were observed in tuberculosis. (Nidana Sthana III: 8-13) Nails and hairs may show excessive growth in diabetes. (Nidana Sthana X: 49-50) Many such changes were observed in other diseases.

 Treatments of skin diseases:

As this work is mainly a compendium, very few elemental treatments are noted. Some of the diseases are given a detailed account of treatments. The treatment of kustha was dealt with in an entire chapter of the Astanga-Hridaya (Chikitsa Sthana: XIX). Treatment of baldness, graying of hairs and an account of dyeing of the white hairs as management on graying of hairs clearly state that treatment was not only limited to the physical problems, but aesthetic aspect was also given much importance. (Uttar Sthana XXIV) Cauterization was extensively used along with surgical procedures in many skin diseases.
5.4.4 MADHAVACHARYA'S COMPENDIUM ON AYURVAEDA:

Madhavacharya was one of the most distinguished authors on the Ayurveda. According to some Arabic sources, he lived during 7th or 8th century A.D. His work was the same with that of 'Badan' which was translated in to Arabic, known as 'Yedarf (Nidan) in the patronization of the illustrious Harun al Rashid in 8th century. This places him during 8th century A.D.\textsuperscript{127}

Madhavacharyya's work was mainly concentrated on the diagnostic aspect of the medical science, and hence it was popularly known as \textit{Madhava-nidana} or \textit{Nidana}, though the actual name of his work was \textit{Rogavinischaya}. Madhava is considered as the foremost authority in the \textit{Nidana Shastra}. He described all the important diseases in 70 \textit{nidanas} which extensively deal with the cause, symptomatology etc. and this work had remained a standard reference for other authors of the coming days. He dealt with the skin diseases exhaustively. For example, he devoted a whole chapter on the \textit{Masurika} (small pox) whereas other famous authorities mentioned it only as minor disease. The work describes other skin diseases in same fashion.

5.5 Siddha medicine—an indigenous method of medicine:

5.5.1 Introduction

Siddha system of medicine a systematized branch of knowledge assumed to have been developed by the ancient sages is one of the most ancient methods of healing the patients which flourished mainly in the southeastern part of the country, particularly in Tamilnadu state and Tamil speaking population beyond this state. The system progressed with the advancement of the Dravidian civilization. Majority of the available literatures are written in Tamil. This system of medicine is contemporary with that of Egypt, Mesopotamia, China and Greece.\textsuperscript{128}
The word 'siddha' is derived from 'siddhi' which means attainment of perfection or heavenly bliss. 'Siddha' stands for one who has attained this goal. The basic thought of Siddha system of medicine advocates for a 'deathless' physical body with the spiritually immortal 'soul'. It is stated that Tirumular, a famous siddha whose famous Tirumantiram contains 3000 stanzas defined 'Siddha medicine' as 'that which ensures preventive against mortality.'

It has been claimed that 'it is a well-defined science, a cult by itself, originated in the South and followed by Dravidians, thousands of year before the advent of Ayurveda or any other system of medicine. It is a Medical science comprising of all branches of specialties such as Philosophy, Yoga, Tantra, Astronomy, Astrology and Alchemy.'

Alchemy is one of the most vital principles of the Siddha system. It was assumed that the concept of alchemy in India was influenced by the Taoism of China that was engaged with the task of aurification and use of elixirs of gold and cinnabar and some 'herb with the power of deathlessness.' The Taoist concept of 'immortality' is achieved not only by the use of herbs and alchemy, but also the practice of regulated breathing techniques, dietary regimen, gymnastic, sexual techniques etc. A similar system advocated by the sage Patanjali in his Yoga sutra states that controlled breathing, mastery over senses, coupled with intense meditation is the main secret of an accomplished or Siddha life.

This whole system of Indian as well as Taoist philosophy as well as development of the Tantrism led to the establishment of the concept of Siddha system. The tantrik system of male-female imagery is virtually similar to the Yan-Ying concept of the Chinese medical system. In fact many of the tantrik concepts are told as a conversation between Siva (one of the three major Hindu Gods) and his consort Chandi or Devi. The concept had even led mercury and sulphur as the creative principle of Siva and Shakti. It is assumed that this system of Medicine is based on the philosophy of the Saiva Siddhanta. Siddhars or the spiritual masters formed a system which was a holistic approach combing the Nature with the Yogic awareness that not only improved the mental health, but also the physical health by the path of spiritualism.
5.5.2 **Siddhar’s philosophy**

*Siddhars* prescribed the eight principles through which one may attain the complete health and a perfect eternal life. They termed this *octomiracle* as *ATTA- MA- SIDDHI*. This *atta-ma-siddhi* is comprised of the following:

- **Anima**: this reduces the whole body to as minute as an atom.
- **Mahima**: it is the power of expansion to a very large size.
- **Garima**: power of expansion.
- **Laghima**: power of making one as light as feather that may even facilitate one to float in air.
- **Prapti**: power to achieve any desired object.
- **Prakamyam**: irresistible will to perform.
- **Esatwam or isitvam**: attaining supreme power over all animate and inanimate objects in the universe.
- **Vasitwam**: power of subduing any subject or object.

The *Siddhars* not limited their thinking process to the spirituality only, but they also investigated different herbs, metals and minerals for the benefit of the human being.

5.5.3 **Different schools of Siddhars:**

In the beginning the Siddhars were divided into nine schools (*Navanadha Siddhars*):

1. *Sathya nathar*
2. *Sathuga nathar*
3. Ashi nathar
4. Anandhi nathar
5. Vagulitha nathar
6. Mathanga nathar
7. Gadendra nathar
8. Matchendra nathar, and

Later on it was divided into eighteen Moolavargas or schools:

1. Tirumular
2. Pulsatiyar
3. Nandhidevar
4. Idaikkadar
5. Agashtiyar
6. Punnakeesar
7. Bhogar
8. Pulikeesar
9. Koganavar
10. Azukannai
11. Pambatti
12. Kudambai
13. Gorakkar
14. Agappei
15. Theraiyar
16. Sattamuni
17. Poonaikkannar, and
18. Kalangi.

Siddhars prescribed four paths or Siddha margas to attain the goal. They are alchemy, medicine, yoga and jnana. To prevent mishandling of the system, they used allegory and
masking of the different herbs and methods. They described some chemicals and herbs which are not known to us. Examples are: *Sernthadu pavai* — an unknown tree; *Saya virutcham* is another unknown tree which does not cast its shadow; *Karu notch* is an unidentifiable herb which has the property of turning gray hairs black. They also mentioned some plants they used to possess *atta-ma-siddhi* like *Karunkodiveli, Kalthamari, Porchindheel, Ponn therai* etc.

For the attainment of health *Siddhars* advocated *Vadham, Vaidhyam, Yogam* and *Thathvam*. These four ways also formed the basis of the Siddha Medicine. *Siddhars* had divided the matter of the universe into the classes of minerals, vegetables and animal origins.

**Vadham:** it is the practice of alchemy where different minerals and chemicals and their transformed states were used to various effects at different purposes. For example mercury was used for various medical applications including restoration of youth for the old aged.

**Vaidhyam:** it is the practice of medicine. The basic principle of Siddha practice of Medicine stands on the edifice of five principles or Doctrine of *Pancha Bhutas*. These are *Nilam, Neer, Thee, Vali* and *Veli*. This universe as well as man originated from all supreme *paraparam* based on 96 *thatuvas* — a theory known in Siddha medicine as *Thotramum Odukkamam*.

These *pancha bhutas* or five elements in the human body are:

1. *Nilam*: bones, flesh, nerves, hairs and skin
2. *Neer*: bile, blood, semen, sweats etc.
3. *Thee*: hunger, thirst, beauty, indolence
4. *Vali*: construction, expansion and motion
5. *Veli*: is the space within digestive system, heart and cranium.
These different five elements are intermixed with one another and forms *pancheekaranam*. There are three functional forces which are responsible for the overall activities of the body: *Vata, Pitta* and *Kapha*.

The body structure is divided into two divisions:

1. *Vuir thathu* or the abstract structure, and

2. *Udal thathu* or the physical structure.

The *vuir thathu* deals with the abstract structure of the body like, soul etc.

The physical structure of the body is composed of seven components (*udal thathus*) which form the base of the body: *Irasam, Iraththam, Mamisam, Kozhuppu, Enbu, Moolai, Sukkilam* and *Suronitham*.

Any derangement in the balanced state of *Vuir thathu* and *Udal thathu* leads to *pini* or the pathological state.

The causes of diseases, in Siddha Medicine have been divided mainly into two parts:

- Internal causes: this is due to the perturbation of the balance in *Vuir thathu, Udal thathu, Gunas* and *malas*.
- External: due to the effect of seasons, place, stellar position etc.
5.5.4 Diagnosis of a disease state:

Diseases are diagnosed by the use of three clinical methods:

- **Porival arithal**: this is done by the examination of five sensory organs or *Ayampori* namely, skin, tongue and oral cavity, eyes, nose and ears.
- **Pulanal therithal**: this is the examination of the physical perception or *Lympulan* namely, vision, tactile sensation, sound and smell.
- **Vinathal**: this is the part of the examination of the patient where history is taken and the examiner uses his perception to felt different findings of the diseases.

The clinical examination is done on the basis of eight parameter or *Enn vagai thervu*. These eight components are—*Naadi* (pulse), *Sparisam* (tactile perception), *Na* (tongue), *Niram* (colour of the skin or body as a whole), *Mozhi* (speech), *Vizhi* (eyes), *Malam* (faeces and other excreta) and *Mootiram* (urine).

5.5.5 Treatment methodology in Siddha Medicine:

The treatment protocol for any disease in Siddha Medicine is comprised of three aspects: preventive, curative and promotive.

(A) **Preventive**: Siddha medicine places utmost importance on the prevention of any disease by promoting upgradation of thought and soundness of the body. It suggests avoiding evil thought that may corrupt the soul and mind,

(B) **Curative**: this aspect of the treatment is again subdivided into following arms:

(i) **Premedication**: this is accomplished by one or more of the following methods:
(a) Vandhi: Induction of vomiting by using some herbs that will balance the perturbed dosas.

(b) Kazhidhal: this is done by purgation using herbs and minerals.

(c) Peechal: this is done by the use of enema.

(ii) Medication: this may be internal and/or external.

Internal medicines may be again of the following types:

(a) Drugs appropriate for the diseases: it may be composed of roots, leaves and other parts of the herbs, minerals, metals etc.

These drugs may be Oppurai (compatible drugs), Ethirurai (incompatible drugs) or may be Kalappurai (admixture of compatible as well as incompatible drug along with an adjuvant therapy).

(b) Adjuvant therapy: this is composed of Thunai marundhu (supporting drug) for any therapy that potentate and may change a drug for better therapeutic outcome. Adjuvants are considered most important part of the drug activity and are selected according to the season, constitution of the person, affected dosas, nature of the illness (acute or chronic), curable or incurable etc. According the famous siddhar Bhogar a single drug may act differently according to the nature of the adjuvant used.133

(iii) Pathiyam: this stands for diet regulation and manipulation. As many of the Siddha medicines are composed of different minerals like mercury, sulphur, zinc, lead, copper etc., there is always a chance of incompatibility. Dietary manipulation is done to avoid these. Sour foods are advised to avoid generally.134
External medicines are of the following types:

(a) **Palliative**: this may be composed of herbs, minerals, metals etc. This is applied in the forms of paste, poultice, oils, etc.

(b) **Radical**: these are composed of the following:

_Aruvai_: this is accomplished by surgical methods like incision, drainage, probing, plugging, leech application, vaporization, syringing etc.

_Agni_: in this procedure diathermy and cauterization is done by using metal, wood pieces, gas, sun exposure, fomentation etc.

_Karam_: in this method mainly mercurials and arsenical compounds are used. This is done by the use of ointments, plasters, fomentation, pastes etc.

(c) **Promotive**: this aspect of the treatment is composed of rest, cessation of medication, bath, offering to the God etc.

### 5.5.6 Dermatology in Siddha Medicine:

#### 5.5.6.1 Introduction:

This becomes apparent from the above discussion that skin was given a very important place in the diagnosis as well as treatment of the diseases. Skin and hairs were considered as an important part as the main component of the body. Examination of the skin is done as a special organ in the examination of any disease. Again touch and colour were considered as crucial part of the clinical examination.

#### 5.5.6.2 The pathogenesis of skin diseases:

The healthy body as well as healthy skin is achievable in the state of balance of various _kuttam_. In this system, disorders of the skin are categorized under _kuttam_. According to the ancient Siddha texts there are eighteen types of _kuttam_. All the chronic skin diseases are brought under these _kuttam_. In the commencement of any skin disease the _Azhal kuttam_ (pitta) is perturbed from the balanced state; afterwards it returns to the normal but provokes the _Vali_ (vayu) which gives rise to
the manifestation of skin diseases. When Azhal kuttam gets disturbed along with the Vali kuttam acute stage of the disease results. The ultimate state results when both these kuttam declines but lead to the provocation of the Iyyam (kapha). The skin diseases are considered as a manifestation of the systemic disturbances of the body not an external problem only. These are the disorders resulted from the perturbations of the three dosas and seven dhatus and invasion of infective organism or kirumis.  

5.5.6.3 Skin diseases in siddha system: some examples

In this system, disorders of the skin are categorized under kuttam. According to the ancient Siddha texts there are eighteen types of kuttam. All the chronic skin diseases are brought under these kuttam, for example, psoriasis is classified under the term kechara kuttam according to the Vaidya Chintamani of Yugimuni. This text gives a clear description of this disease: the skin becomes darkened in complexion, the skin peels off and the surface exposed is reddish and there is a feeling of dryness and skin splits and the patient scratches due to the itching. The toes become hard and thick and crack. There are mention of skin diseases like urticaria (thinvup-pun), dermatitis (Sarumap-pun), acne (paru), abscess (katti), tumours (hazhalai), malignancy (putru) etc.  

There is mention of some medicinal herbs like Karu notchi which may be used to darken gray hair to black. There is mention of management of many other skin disorders like vitiligo, allergic skin diseases etc in Siddha system of medicine.

5.5.7 Conclusion

Siddha system of medicine was composed of a range of methodology that aimed in overall improvement of a person’s life in all aspect. It has a developed system of diagnosis based on philosophy, clinical examination. As far as the treatment is concerned using the skin as a medium for drug administration is amazing. The method of cauterisation using heat, multiple uses of surgical procedures and combination of herbs as well as minerals shows the advanced thinking of the siddhars.