

DERMATOLOGICAL WRITINGS OF ANCIENT INDIA

THIS paper is concerned with a glimpse into the wealth of ancient Indian medical literature. A small sampling of the general knowledge and thoughts of these ancients will be presented along with an attempt to place their leading texts into some historical perspective. Following this, emphasis will be placed on some of the writings of what may be called 'Ancient Indian Dermatology'.

Most modern physicians are not aware of the richness of the medical literature of ancient India. Even most monographs and textbooks on the history of medicine include only cursory references to medicine in Ancient India. In addition, English translations of the original Sanskrit texts are usually available only in certain specialized libraries. The leading prominent texts available to these ancient medical practitioners were the *Atharva-Veda*,^{1,2} *Charaka Samhita*,³ and the *Sushruta Samhita*.^{4,5} A brief summary of their contents is given below:

ATHARVA-VEDA SAMHITA

The *Atharva-Veda* is one of the ancient scriptures (vedas). The vedas are among the world's oldest literature. Estimates of the dates of composition of the vedas range from 3000 B.C.–1000 B.C. The vedas contain much of the knowledge of the age. Of the four vedas, the *Atharva-Veda* is by far the most important source of early references to medicine. Although the *Atharva-Veda* is basically a religious text, in it we see the foundation of the future system of medicine. The book contains over 700 hymns consisting of about 6,000 stanzas. Of these hymns, 114 are devoted to medical topics. Fever, consumption, various wounds, oedema, heart disease, headache, worms, eye disease, ear disease, skin disease, poison, rheumatism, madness and epilepsy are some of the subjects mentioned. The book contains a description of healing methods which consist of drugs, charms, prayers, incantations and amulets. The *Atharva-Veda* is a unique blend of superstition, philosophy, rituals, ethics and scientific observation; medicine is only one of the numerous aspects of life discussed.

THE CHARAKA SAMHITA

The most ancient of the comprehensive Indian books on medicine is known as the *Charaka* or *Charaka Samhita*. This book has been considered the most authoritative text on medicine. Historians differ upon the date of original composition. From a number of sources it appears that the original *Charaka Samhita* is a redacted version of an earlier work by Agnivesa. Agnivesa is thought to have compiled his work about 1000 B.C. Charaka's redacted version was probably written in 300–200 B.C. The *Charaka Samhita* as it is available to us is in a redacted form written by Dridhabala. Besides editing the major portion of the work, Dridhabala also reconstructed, possibly from Agnivesa, the last two sections of the *Charaka Samhita* which had been lost. The importance in which the then contemporary world held this text is revealed by the fact that early translations of the book into Chinese, Arabic and Tibetan languages were compiled.

The *Charaka* is a comprehensive text which is divided into eight sections. The section titles are: General Principles, Pathology (Etiology), Specific Determination,

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Human Embodiment (Descriptive Anatomy), Sensorial Prognosis, Therapeutics, Pharmaceutics and Toxicology, and Success in Treatment. Each segment conveys numerous diverse topics. For example, in the section on General Principles, some of the many topics discussed include the attributes of a competent physician and nurse, medical quackery, a general definition of disease, the division of diseases into curable and incurable, treatment of psychic disease, definitions of maximum and minimum dosages, the physician's armamentarium, objectives of therapy, a list and classification of major diseases, and the Indian equivalent of the Hippocratic Oath. Instructions are also given on nutrition (including dietary regulations) and on the daily activities leading to a healthy life. The sections on Therapeutics and Pharmaceutics and Toxicology contain references to many medications such as purgatives, sedatives, emetics, etc. These sections also give therapies for various conditions such as insect and snake bites, headache and poisoning.

From the brief discussion above, it is seen that the *Charaka* is a vast compendium of most of the existing medical knowledge at that time. The book in its early period probably had a profound influence upon the development of modern medicine. Even today, a large number of medical practitioners in India are trained in and practice a system of medicine essentially based upon the *Charaka Samhita*.

THE *SUSHRUTA SAMHITA*

The *Sushruta Samhita* was the close successor to the *Charaka*. It is believed to have been written about 100–200 years later. It has the same structural plan and covers similar topics. Much of the book is a restatement of the *Charaka*. The unique feature of this book, however, is detailed presentations of surgical techniques. The *Charaka Samhita* is the foundation of Indian medicine; the *Sushruta Samhita* occupies the same position for surgery. Some of the operations discussed in the text are those of haemorrhoidectomy, amputations, plastic, rhinoplastic, ophthalmic, lithotomic and obstetrical procedures. Sushruta, himself a practical surgeon, was one of the first to advocate dissection of dead bodies as indispensable for a successful student of surgery. Clearly the world owes the *Sushruta Samhita* a debt for introducing or popularizing many revolutionary procedures; rhinoplasty, skin flaps, obstetrical forceps and caesarean section are but a few.

DERMATOLOGICAL LITERATURE OF THE THREE BASIC TEXTS

The dermatological literature of these works are interesting. Some brief excerpts and selections from each of the three books will be presented separately below.

ATHARVA-VEDA

The following excerpts will give the reader a clearer idea of the type of dermatological literature present in the *Atharva-Veda*. Two hymns are incantations against disorders of skin coloration: one is 'against unlucky marks', and the other against 'yellowness'. Elsewhere, a black herb is offered as a topical therapy 'to colour' skin that has become 'white because of disease'; a topical ointment is recommended as protection against '*yakṣma*' (disease in general), and it is suggested that a certain boiled herb be poured on wounds to aid the healing process. Hair must have been

considered important in ancient Indian culture for in this book are a number of hymns for curing hair problems. Two of these hymns are: 'O herb, thou art born divine on the divine earth. We dug thee up in order to cure the hair. Cure the old hair, generate unborn hair and make those already born longer. I now pour the all-healing plant upon the hair that falls out and the hair that is pulled out with its roots.' 'The herb which the sage Jamadagni dug up to use on his daughter as a hair restorer' . . . is applied 'to make the hair grow longer'.

The concept of medicine in the *Atharva-Veda* is still in an embryonic state. Most of the medical references are in the form of incantations where supernatural powers are evoked. However, certain pragmatic remedies are suggested; usually each remedy is specific for a certain symptom or group of symptoms. Scientific observations, however, are in a rudimentary state and are much inferior to those vivid descriptions found in the succeeding *Charaka* and *Sushruta Samhitas*.

CHARAKA SAMHITA AND SUSHRUTA SAMHITA

The dermatological references in the *Charaka* and the *Sushruta Samhitas* are too numerous to cover adequately in a short paper. However, a few representative examples are given so that the reader may have glimpses of their dermatological contents. In these texts, the predominantly religious approach of the *Atharva-Veda* has given way to one that is much more scientific.

CHARAKA SAMHITA

In the *Charaka* there are two chapters devoted entirely to skin disease, in addition to many scattered passages throughout the book. One chapter occurs in the section on Pathology (Etiology) and the other in the section on Therapeutics. The *Charaka Samhita* states that dermatoses are never due to one single factor but are due to a combination of causes. Charaka classifies them into 18 varieties, although he states that they could just as easily have been classified into 'seven' or 'innumerable' kinds. Some excerpts follow giving Charaka's thoughts on factors that precipitate skin disease:

The constant use of mutually incompatible food and drinks, of fatty liquid and heavy articles of diet; the suppression of the urge for vomiting or other calls of nature; indulgence in exercise or exposure to heat after a surfeit meal; irregular indulgence in cold or hot food or fasting or overeating; using cold water after suddenly being afflicted with heat; fatigue or fear; wrongful administration of the five purificatory procedures; habitual use of new grain, curds or fish; excessive use of salt or sour food; sex act before the ingested food is digested; the persecution of wise men and elders; and the committing of sinful acts. These factors act by affecting the three basic principles whose imbalance then vitiates the skin, blood, flesh and body fluids. This is the complex of the seven body elements affected in dermatosis. As a result of such derangement, eighteen types of dermatoses are produced. Dermatosis is never the result of the discordance of a single humour.

Next follows a list of general symptoms and signs of skin disease. 'Anaesthesia, hiperhidrosis, anhidrosis, discolorations, eruption of rashes, horripulation, pruritis, pricking pain, fatigue, exhaustion, excessive pain, rapid formation and chronicity of ulcers, burning sensation, numbness in the limbs, these are the presenting symptoms and signs of dermatoses.'

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In this book one finds vivid descriptions. Charaka has attempted to classify or describe diseases based on their clinical appearances. The following excerpts are clinical descriptions of conditions that Charaka considered disease entities.

Now, I shall describe the signs and symptoms of the 18 kinds of dermatoses:

The dermatosis, which is dark red in colour like the broken pieces of an earthenware pot and which is dry, hard, thin, very painful and irregular in shape is named 'Kapala' dermatosis.

In the disease called 'Mandala', the lesions are pale red, piled up, elevated at the edges, and overlap one another; this is formidable in nature.

The dermatosis which is hard, red in the margins and dark in the centre, painful and has a resemblance in form to the tongue of a musk-deer, is named 'Rishyajihva'.

In the disease called 'Sidhma' the lesions are white or coppery and thin. They give out a fine dust when rubbed, which is the colour of the flower of the bottle gourd. The lesions generally make their appearance on the chest.

The disease named 'Ekakushtha' dermatosis does not sweat, is extensive (in size) and resembles the scale of the fish. That is known as the 'Vipadika' dermatosis where there are fissures on the hands and feet with acute pain . . .

That is known as 'Alasaka' dermatosis which is full of itching and red papules.

That is known as the 'Charma-Dala' dermatosis which is red and itching. It is attended with an outbreak of lesions which are painful and break open. They are tender to touch.

That is known as the 'Pama' dermatosis which has whitish, dark red papules with severe itching.

That is known as the 'Visphota' dermatosis which has red and white papules and thin skin.

In the 'Vicharchika' dermatosis, there is an itching eruption, which is dark and has a profuse discharge . . .

Whether any of the conditions are reminiscent of those of modern classifications of diseases the reader himself can ponder. Definitely some are suggestive, for example, possibly sidhma and seborrheic dermatitis, By modern standards the descriptions presented are rather brief. It should be borne in mind that these texts were originally composed for the student to memorize, *verbatim*, and therefore had to be brief. In practice, each topic was elaborated upon by means of oral discussions between the teacher and his students. Although the texts were memorized, these were not necessarily considered to be the ultimate authority and the questioning spirit was usually encouraged.

From their clinical descriptions of diseases, an important fact becomes evident. These ancient practitioners tried to differentiate disease entities by their clinical appearance. With their limited facilities and experience, they developed an elaborate system. This system was a blend of scientific observations and metaphysical thoughts.

It is hoped that from the brief discussion above, the reader will have some idea of the rich dermatological contents of the *Charaka*. However, the above excerpts are but a small fraction of its total contents.

SUSHRUTA SAMHITA

The *Sushruta Samhita* is very similar in its dermatological contents to the *Charaka*. However, some of the conditions are more elaborately described. The following clinical description of diaper rash or anal dermatosis is of interest:

Because of contact with urine and faeces and because of this wetness and the fact that this area is not cleaned, one of the body principles (Apana Vayu) becomes enraged. This causes itching . . . following itching soon an oozing eruption appears. These sores (ulcers) join together to become one. This terrible disease is called 'Ahiputana'.

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The word 'Kushtha' appears in these texts as a term which covers several types of skin diseases. In modern India this word is used for leprosy. In the following passages discussing Kushtha from the *Sushruta Samhita*, one can see many characteristics of the current clinical concept of leprosy.

Among the Kushthas the one caused by Vayu [an imbalance of a major humour] has the following characteristics: contraction of the skin, anaesthesia, perspiration, swelling, itching, rupture or ulceration of the skin and hoarseness.

Pittam [an imbalance of another major humour] causes Kushtha that has: burning, breaking, falling off of the digits, sinking of the ears and nose, redness of the eyes and worms.

Deranged Kapha [the third major humour] causes: itching, change of colour, swelling, oozing and heaviness.

. . . The types, white and black, which are due to heredity are impossible to cure. Just as a tree, naturally growing, spreads down into the earth by roots nourished by rain, similarly Kushtha originated in the skin in the course of time gradually affects the principles and brings an end to man.

Lack of sensation, lack of sweat, little itching, change of colour, roughness, these are produced in the Kushtha confined to the skin. Kushtha associated with blood has insensitivity, hair standing on end, excessive sweating, itching, pus . . .

Symptoms of Kushtha associated with bone marrow [bone and marrow] are the breaking [disfiguring] of the nose, redness of the eyes, worms in the ulcer . . . and hoarseness of the voice [loss of voice] . . . and falling off of the digits.

An offspring born to men and women having severe Kushtha will also have Kushtha.

The Kushtha which has affected skin, flesh, blood and fat of the person who has controlled himself is curable; more advanced cases are not.

The origin of Kushtha is said to be the killing of a Brahman, a woman or an honest person.

Sushruta is unique in his elaboration of surgical techniques. There are two chapters devoted to 'surgical appliances: their uses and construction'. There are separate chapters devoted to the following topics: preliminary surgical measures, classification of surgical operations, qualification of surgeons, modes of incision, directions for dressing wounds and removing bandages, teaching of surgery on dummies and suitable fruits, cauterization, leeches and their uses, piercing and bandaging of ear-lobes, methods of adhering severed ear-lobes, rhinoplastic operation, dressing and bandaging of ulcers, nursing and management of an ulcer patient, and a classification of diseases according to whether they are surgical or medical. Of surgical interest to the dermatologist are the discussions on the management of skin ulcers, skin incisions and suturing, ear-lobe piercing and its complications with their therapy, the joining of severed ear-lobes and rhinoplastic operations.

. . . A surgeon well versed in the knowledge of surgery should slice off a patch of living flesh from the cheek of a person devoid of ear-lobes, in a manner so as to have one of its ends attached to its former seat [cheek]. The part where the artificial lobe is to be made should be slightly scarified [with a knife] and the living flesh full of blood and sliced off as previously directed should be attached to it [so as to resemble a natural ear-lobe in shape.]

Now I shall deal with the process of affixing an artificial nose. First the leaf of a creeper, long and broad enough to fully cover the whole of the severed or chipped-off part of the nose, should be gathered. A patch of living flesh equal in dimension to the previously described leaf should be sliced off from down upward from the cheek and after scarifying it with a knife, quickly adhered to the severed nose. Then it should be tied up with a bandage. . .

This brief account of Ancient Indian dermatology was meant to stimulate interest in an apparently neglected field. Because of the interplay among great civilizations

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modern medicine no doubt owes a considerable debt to these ancient Indian practitioners and texts. That an interplay among civilizations of this period occurred is generally acknowledged. However, its extent is difficult to evaluate. Especially intriguing in this regard is the relationship between the classical Indian and Greek Schools of Medicine. Both had many features in common including the use of scientific observation; both were co-existent for a large part of their history; and it seems likely that there were similar mutual exchanges of information in medicine as is well known in other fields. Ancient Indian medicine could also have affected the development of modern medicine through its influence upon Arabian medicine later in history.

SUMMARY

The most important sources of medical knowledge in Ancient India are described. An attempt is made to present the *Atharva-Veda*, the *Charaka Samhita* and the *Sushruta Samhita* in historical perspective. A brief outline of their contents is given followed by a presentation of some of their dermatological writings.

The systematic classification of dermatological diseases in the *Charaka* and *Sushruta Samhitas*, is discussed. Some of the classification is based upon scientific observation of morphology. Some of the dermatological therapeutics and surgery performed are also described.

REFERENCES

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NOTE

The excerpts presented from the texts occasionally differ in slight details from those of the original translations. They have been modified only where the English translations seemed especially archaic or very cumbersome. In such instances, the modifications were based upon the original texts in Sanskrit.

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