



Contribution of some ancient Indian text in field of medicine and botany

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Abstract

Indus Valley Civilization, one of the oldest civilizations in the world, developed in ancient India. Whatever evidence has been found from there till today shows that India was a very scientific country where different types of universities were opened and different types of teachings and knowledge were given. It is not India but foreign students also come here to learn. India is known by its ancient scholars whose tireless efforts have helped us to know about the species of different types of trees and plants and their medicinal values. Their words came to us from ancient texts through sutras, hymns and formula. While considering old text we come to know about the authors or composer of those texts, thus we may find out scientist name too. It must have been a collective effort, not by any single scholar who has explained about ancient medical practice or botany. There can be more than one writer or scholar. In the present review, we have tried to study about some texts so that we can get information about the ancient scientists and their contribution in botany and medicine.

Keywords: Valley Civilization, scientific country, medicine and botany

Introduction

India was regarded as Vishwa Guru i.e. teacher of whole world. What was the education he taught to others? Indeed India was world teacher because when we look the ancient history we found that there were large numbers of universities established across the India such as Nalanda university, Takahashila, Vikramshila University, Mithila university, Vallabhi University ^[1]. In these universities peoples from other country and our country learn different kinds of knowledge such as Ayurveda – medicine, Dhanurveda – weaponry, Gandharvaveda – music and Silpa – architecture, theology, grammar, logic, astronomy, metaphysics, medicine and philosophy, phonetics, astronomy, ritual etc ^[2].

Not only have the students of India but also foreigner also learned different knowledge from these universities. Faxian an ancient traveller from china visited at various Buddhist pilgrimage in india and learn about culture and civilization of India about 2000 year ago ^[3]. Xuanxang and Yijing were another chinese traveller stayed and studied about different subject of ancient indian university at Nalanda ^[4]. Although there are several travellers and students visited india, very few compiled records and return to their native countries. Most of the people and students got influenced by the culture and knowledge of this place and decided to stay here. And the travelers who returned from here spread the knowledge and ideas of this place. Although there were various subject and knowledge in ancient indian universities. Here we discussed about ancient scientist in biological field who propounded many books and exercises which remain the basis of today's medical and biological fields.

One of the major problems in survey of ancient scientist and literature is that there were many people of the same name so we look towards ancient works on medicine and botany from ancient literature. Here we discuss about some ancient literature and their writers.

Ancient Literature and their writers

Charaka samhita

Charak samhita was one of the oldest book on medicine and other medicinal practices. It was compiled by Charak. Charak is considered the father of ancient Indian science of medicine. He was the Raj Vaidya (royal doctor) in the court of Kanishka. He was the first to talk about digestion, metabolism and immunity as important for health and so medical science. Charak also knew the fundamentals of Genetics. In Charak Samhita, more stress has been laid on removing the cause of disease rather than simply treating the illness. It has the description of a large number of diseases and gives methods of identifying their causes as well as the method of their treatment. In charak samhita three important region were decided based on rainfall and temperature Anoop Desha, Jangala Desha and Sadharana Desha. It also described many plants and isolated drugs according to regions. Charak is considered the father of ancient Indian science of medicine ^[5-7].

Dhanvantari Nighantu, and Chikitsa Saar Sangrah.

Dhanvantari Nighantu is medicinal book written between 8th and 10th century. This book contains seven Vargas (parts) namely Guduchyadi, Shatapushpadi, Chandandi, Karaviradi, Amradi, Suvarnadi and Misharakadi verga and total numbers of drugs are 527 ^[8]. In this book there are several medicinal plants and their extract were mentioned such as Guduchi (*Tinospora cardifolia*), dadima (*Punica granatum*), kadali (*Musa paradica*) ^[9]. There were various authors of this book but the real one is mysterious. There were many book written by various authors and described various plants in medicinal treatment in the name of ancient scientist Dhanvantari.

Vrikshayurveda

Vrikshayurveda is the ancient Indian science of plant life. It has been systematically completed in the form of 325 Sanskrit slokas in a text named Vrikshayurveda by Surapala approximately 1000years ago. The verses in Surapala's

Vrikshayurveda quoted that ten wells are equal to one pond, ten ponds equal to one lake, ten lakes are equal to one river, and ten sons are equal to one tree. This clearly describes the importance of plants in human life ^[10].

N. N. Sarkar and Roma Sarkar translated *Vṛkṣāyurvēda* of Parāśara in English ^[11]. This book can be placed in all probability in between 1st century B.C to 4th century A.D by its linguistic style. Many scientific branches of Botany including origin of life, ecology, distribution of forests, morphology, classification, nomenclature, histology and physiology were dealt in this ancient work ^[12].

Krishi Parashara

This book was believed to be composed by Parashar. It was dedicated to Agriculture in which time of agriculture, rainfall, climate and soil type was considered. Type of cereals was certainly considered. The text consists of two hundred and forty-three verses mostly composed in the popular anustubh (shloka) meter. Prose is used exceptionally. The verses are neatly divided into sections according to the topics they deal with ^[13].

Sushruta Samhita

Sushruta Samhita is an ancient text of Ayurveda and surgery wrote in 6th or 7th century B.C. It was written by Sushruta, the disciple of Dhanavtari. Sushruta was born in the 6th century B.C. in Kashi become famous as father of surgery. Sushruta Samhita described 700 medicinal plants along with various diseases, remedy and surgical methods ^[14].

Ashtangahridayam and Astanga Sangrah

These famous Indian text were written by Vaghata. The actual time period of these books are unknown but estimated as 500 to 250 B.C. These books described various diseases especially heart diseases and its remedy ^[15, 16].

Early Buddhist text

In various Buddhist text pali nikaya, Avadna and sutta a famous physician was described as Jivaka. He was described as medicine king in the kingdom of Bimbisara about 500 B.C. He was personal physician of Lord Gautam Buddha. He described various diseases such as diarrhea, fistula, fever etc. ^[17].

Rigveda and other vedas

The ancient Vedas are good source of plant knowledge. In Rigveda three groups of plants recognized as Vrksa (Tree), Osadhi (herb) and Virudh (Creepers) ^[18]. In Rigveda medicinal plants were described into two categories, Vanaspati and Ausadhi or Osadhi ^[19]. There were various medicinally important plants as Guggul (Commiphora wightii), Peepal (Ficus religiosa), Mahuva (Madhuca indica), Satavari (Asparagus racemosa), Vat (Ficus bengalensis) etc described in Athrava veda ^[19].

Discussion

Food is the most essential thing for humans or any other living being. If someone says that we are separated from the earth and not from the earth, then he will not be completely wrong. In the course of evolution, humans may have been dependent on other animals but would have become cultured with time. Culture began with agriculture and humans cultivated various types of plants, mostly for food and medicine. In today's environment, we see that most of

the medicines and food materials are obtained from plants in large quantities. However, with the advancement of science, apart from plants, microbes and synthetic things are also available.

But in some cases their side effects can also be seen. Products produced by plants do not have any side effects provided they are used in the right manner and with caution. In India, ancient scientists discussed about all these things and spread them to the masses through their writings and poems.

Our old civilization and scientist rightly says about the diseases as know the sickness, Abandon the cause of the sickness, Aspire the cure and Rely upon the medical treatment. Now it becomes our responsibility to know our ancient scientists and follow the path shown by them.

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