# HISTORICAL PERSPECTIVE AND PRESENT STATUS OF HERBAL DRUGS IN INDIA

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**Abstract**:

*The present paper is written with a aim to correlate history of Ayurveda with modern scientific credential of Herbal Medicines in India. The Ayurveda sytem of medicine is observed retrospectively. The Aurvedic text is written in the form of Sutras in Sanskrit. The Charak Samhita, Sushrut Samhita and Astanga Hridiya Samhita are probably most ancient text believed to be written between 200 B.C to 400 B C.Madhava Nidanam is written in 700 AD. It is the need of time to discuss about correlation of history of Ayurveda with modern status of herbal medicine in India. There are so many evidences where herbal drugs with promising activities are being uses to cure various diseases.*

**Introduction**

Ayurveda literally means the Science of life. It is presumed that the fundamental and applied principles. Ayurveda got organized and enunciated around 1500 BC. *Atharvaveda,* the last of the four great bodies of knowledge- known as Vedas, which forms the backbone of Indian civilization, contains 114 *hymns* related to formulations for the treatment of different diseases. From the knowledge gathered and nurtured over centuries two major schools and eight specializations got evolved. One was the school of physicians called as '*Dhanvantri Sampradaya'* (Sampradaya means tradition) and the second school of surgeons referred in literature as '*Atreya Sampradaya'*. These schools had their respective representative compilations- Charaka Samhita for the school of Medicine and Sushruta Samhita for the school of Surgery.The former contains several chapters dealing with different aspects of medicine and related subjects. Around six hundred drugs of plant, animal and mineral origin have been mentioned in this treatise.

Sushruta Samhita primarily deals with different aspects of fundamental principles and theory of surgery. More than 100 kinds of surgical instruments including scalpels, scissors, forceps, specula etc. are described along with their use in this document. Dissection and operative

procedures are explained making use of vegetables and dead animals. It contains description of about 650 drugs and discusses different aspects related to other surgery related topics such as anatomy, embryology, toxicology and therapeutics. Vagabhata's 'Astanga-Hridaya' is considered as another major treatise of Ayurveda. The above three documents are popularly known as '*Brihattrayees'* (the big or major three). In addition to these three scholarly and authoritative treatises a vast body of literature exist in the form of compilations covering a period of more than 1500 years. Till the medieval period it was perhaps the only system available in the Indian sub-continent at that time to cater to the healthcare requirement of the people. It enjoyed the unquestioned patronage and support of the people and their rulers. This can be considered as the golden period of Ayurveda because most of the work related to basic concepts, enunciation of different principles, evolvement of different formulations occurred during this period. The patronage for the Ayurvedic system of medicine considerably decreased during the medieval period, which was marked by unsettled political conditions in the country and series of invasion by foreigners. The neglect became worse during British rule during which importance was given to Allopathy through official patronage. In the early part of 20$^{th}$ century interest in Ayurveda rekindled as part of national freedom movement. People's representatives even in British India and princely states started asking for suitable measures to develop Ayurveda on scientific lines. After India gained Independence from the British rule in 1947, the movement for revival of Traditional Systems of Medicine gained momentum. The systems got official recognition and became part of the National Health care network to provide health care to the country's citizen. Government of India initiated a series of measures to improve the position of Ayurveda as one of the major health care systems vital for catering to the primary health care needs of the country. A number of hospitals and colleges for Ayurveda were established. The other major initiatives were establishment of a research Institute to take care of the R & D needs (Central Institute of Research in Indigenous System of Medicine (CIRISM)-in 1955 and a Post Graduate Training Centre of Ayurveda in 1956- to impart Post graduate education; establishment of a University- named Gujarat Ayurveda University at Jamnagar in Gujrat and creation of Central Council of Indian Medicine in 1972 for regulating Education and Registration in Ayurveda, Siddha and Unani systems of medicine. A research council named Central Council for Research in Indian Medicine, Homoeopathy and Yoga (CCRIMH) was established in 1971. Subsequently, this council was bifurcated to create three separate councils -Central Council for Research in Ayurveda & Siddha (CCRAS) , Central Council for Research in Unani Medicine (CCRUM), Central Council for Research in Homoeopathy (CCRH) and Central Council for Research in Naturopathy and Yoga (CCRNY) .

National Institute of Ayurveda (NIA) was established at Jaipur in Rajasthan state. Recently another University has been established known as Rajasthan Ayurved University- Jodhpur (Rajasthan state). National policy for the development of Indian System of Medicine has been prepared which is available on the web site of Department of Ayurveda.

**The concept of health in Ayurveda**

In India, Ayurveda is considered not just as an ethnomedicine but also as a complete medical system that takes in to consideration physical, psychological, philosophical, ethical and spiritual well being of mankind. It lays great importance on living in harmony with the Universe and harmony of nature and science. This universal and holistic approach makes it a unique and distinct medical system. This system emphasizes the importance of maintenance of proper life style for keeping positive health. This concept was in practice since two millennium and the practitioners of modern medicine have now taken into consideration importance of this aspect. Not surprisingly the WHO's concept of health propounded in the modern era is in close approximation with the concept of health defined in Ayurveda1, 2. Ayurveda is one of the oldest still extant, health traditions in theworld. Originating in India Ayurveda is based on Sankhya philosophy,which means 'rational enquiry into the nature of the truth'. Sanskritmeaning of Ayu is life and Veda is knowledge or science. CharakSamhita (1000 BC) and Sushrut Samhita (100 AD) are the main classics. Ayurveda materiamedica give detailed descriptions of over1500 herbs and 10,000 formulations. Madhav Nidan (800 AD) adiagnostic classic provides over 5000 signs and symptoms. Life in Ayurveda is conceived as the union of body, senses, mind andsoul. The concept of Prakriti or human constitution plays a centralrole in understanding health and disease in Ayurveda, which issimilar to modern pharmacogenomics. With over 400,000 registered Ayurveda practitioners, Government ofIndia Department of AYUSH (Ayurveda, Yoga, Unani, Siddha andHomeopathy) has responsibility to regulate quality, education andpractice.

Present Status of Herbal Medicine in India

India has a rich tradition of herbal medicine as evident from Ayurveda, which could not have flourished for twothousand years without any scientific basis. Ayurveda which literally means knowledge (Veda) of life (Ayur) had itsbeginning in Atharvaveda .CharakSamhita and SushrutaSamhita are the two most famoustreatises of Ayurveda several other were compiled over the centuries such as BelaSamhita, KashyapSamhita, AgniveshTantra, Vagbhata'sAshtanghridaya (600), MadhavaNidan(700 AD)3.Vegetable products dominated *IndianMeteriaMedica*which made extensive use of bark, leaves, flower, fruit, root, tubers and juices. The theory of *rasa,vipaka, virya*and*prabhava*formed the basis of Ayurveda

pharmacology, which made no clear distinction between diet and drug, as both were vital component of treatment 13. Charak, Sushruta and Vagbhata described 700 herbal drugs with their properties and clinical effects.Based on clinical effects 50 categories of drug have been described – such as appetizers, digestive stimulant, laxatives, anti-diarrhea, anti-haemorrhoid, anti-emetic, anti-pyretic, anti-inflammatory, anti-pruritic, anti-asthmatic, antiepileptic, anti-helminthes, haemoptietic, haemostatic, analgesic, sedative, promoter of life (Rasyana), promoter of strength, complexion, voice, semen and sperm, breast milk secretion, fracture and wound healing, destroyer of kidney stones etc.3.The advent of western medicine in the eighteen century was a setback to the practice of Ayurveda, which suffered considerable neglect at the hands of the colonial administration. After the first success of reserpine, anenormous amount of characterization of medicinal plants was done in many laboratories and University Departments, but the outcome was discouraging because the effort was disorganized, thin spread and nonfocused.Molecular pharmacology now provides a new interface between Ayurveda and modern medicine. Using modern techniques, various categories of Ayurvedic drug could provide novel molecular probes. It is now possible to explore the mechanism of action of Ayurvedic drugs in terms of current concept of molecular pharmacology. Some striking example, of Ayurvedic drugs which are understood in terms of today's molecular pharmacology: Sarpagangha (*Rauwolfiaserpentina*) Reserpine uniquely prevent pre-synaptc neuronal vesicular uptake of biogenic amines (dopamine, serotonin and nor-epinephrine). Mainmool (*Coleus forskoliBriq*) Forskolin directly stimulates adenylatecyclase and cyclic AMP, with inotropic and Lusitropic effect on heart muscle.Sallaki (*Boswelliaserrata*) Boswelic acid inhibits 5-lipooxygenase and leukotreine B4 resulting in anti-inflammatory and anti-complement effect. Shirish (*Albizzialebek*) prevents mast cell degranulation, similar to sodium cromoglycate. Aturagupta (*Muconapruriens*) contains L-DOPAAshwagandha (*Withaniasomnifera*) GABA-A receptor agonist. Katuka (*Picrorhizakurua*) anti-oxidant action equal to a tocopherol, effect on glutathion metabolism in liver andbrain3,4 listed 15 crude Ayurvedic drugs, which have received support for their therapeutic claims. Some of Rasyanadravyas have been shown to increase phagocytosis, activate macrophages and enhance resistance to microbial invasion. Drugs like *Asparagus racemousus*, *Tinosporacordifolia*and*Ocimum sanctum* antagonise the effect of stress (Dhuri et al., 2000). *Emblicaofficinalis*L.,*Curcuma longa* L., *Mangiferaindica*L., *Momordicacharantia*L., *Santalumalbum* L., *Swertiachirata*Buch-Ham, *Winthaniasomnifera* (L.) have well defined antioxidant properties and justify their use in traditional medicine in the past as well as the present5.

**Globalization of Herbal Medicine:**

Herbal medicine is still the mainstay of about 75 - 80% of the world population, mainly in the developing countries, for primary health care 6. This is primarily because of the general belief that herbal drugs are without any side effects besides being cheap and locally available 7. According to the World Health Organization (WHO), the use of herbal remedies throughout the world exceeds that of the conventional drugs by two to three times 8. The use of plants for healing purposes predates human history and forms the origin of much modern medicine. Many conventional drugs originated from plant sources: a century ago, most of the few effective drugs were plant based. Examples include aspirin (willow bark), digoxin (from foxglove), quinine (from cinchona bark), and morphine (from the opium poppy) 9. Medical history from the beginning of time is filled with descriptions of persons who used herbs to heal the sick of the society. However, parallel to the onset of the industrial revolution we witnessed the rise of allopathic medicine. Herbal medicine was also an effective healing method, but was viewed less enthusiastically 10. Herbal products were discarded from conventional medical use in the mid-20th century, not necessarily because they were ineffective but because they were not as economically profitable as the newer synthetic drugs 11. In the early 19th century, scientific methods become more advanced and preferred, and the practice of botanical healing was dismissed as quackery. In the 1960s, with concerns over the iatrogenic effects of conventional medicine and desire for more self-reliance, interest in "natural health" and the use of herbal products increased. Recognition of the rising use of herbal medicines and other non-traditional remedies led to the establishment of the office of Alternative Medicine by the National Institute of Health USA, in 1992. Worldwide, herbal medicine received a boost when the WHO encouraged developing countries to use traditional plant medicine to fulfill needs unmet by modern systems 12. The WHO has recently defined traditional medicine (including herbal drugs) as comprising therapeutic practicesthat have been in existence, often for hundreds of years, before the development and spread of modern medicine and are still in use today. Traditional medicine is the synthesis of therapeutic experience of generations of practicing physicians of indigenous system of medicine. Traditional preparations comprise medicinal plants, minerals and organic matter etc. Herbal drugs constitute only those traditional medicines which primarily use medicinal plant preparations for therapy. The earliest recorded evidence of their use in Indian, Chinese, Egyptian, Greek, Roman and Syrian texts dates back to about 5000 years. The classical Indian texts include Rigveda, Atharvaveda, Charak Samhita and Sushruta Samhita. The herbal medicines / traditional medicaments have therefore been derived from rich traditions of ancient civilizations and scientific heritage 6.

**Conclusions**:

It is the need of hour to explore relevance of historical concept of Ayurveda so that they may be correlated with modern status of herbal medicines. The Ayurveda helps a lot in the development and globalization of herbal medicine in the world. Recently many western countries are using Ayurveda as a system of medicine. Further historical evidences in favour of herbal medicine need to be investigated.

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