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Herbal Drug Development in Respect to Ethno Pharmacology

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Abstract :

Traditional medicine has provide as a basis of substitute medicine, healthcare products and pharmaceutical products. India is sitting on a good thing of well-recorded and by tradition well-practiced information of herbal medicine. Ayurveda the distinctive Indian system of medicine is now showing rising status in rest of the world, as the people are getting attentive of the profit. The demand of plant derived products as medicine and health care products have incredible need of plant based raw materials providing many opportunities for developing nations to advance pastoral well being. There is thus a giant scope for India to come out as a major player in the global herb based medicines and products by developing its research and development capacity. There is a vital need to carry out scientific estimate of traditional medicines to provide sound basis to their tradition use. Ethno pharmacological survey of plants of a particular area or cultural group can act as a pre-screen in plant and further quantitative consistency, isolation, formulation development and other pre-clinical and clinical studies can be accepted out. Ethnopharmacological documentation of plants in a scientific should be meant at preservation and of protection of medicinal plants and biological variety. Persistent supply of medicinal plants can be secure by promotion ethical use of medicinal plant drugs that will put off dishonest collection and over utilization of ethno medicinal plants.

Key word : Ethno medicine, Persistent, Distinctive, Ethno pharmacology, Remedial, Ailment, Phytotherapy, Judicious.

Introduction :

Medicinal herbs as potential source of remedial aids has attained a important role in health system all over the world for both humans and animals not only in the unhealthy condition but also as potential material for maintaining appropriate health. There has been a revival of interest on plants and plant products as a resource of medicine in the last few decades. Herbal products have in use a major part in remedial different human ailments. Firm of these drugs have been known and are being used by man for many centuries, while others are still being cut off and evaluated. Medicinal plants are essential for pharmacological research and drug development, not only when plant constituents are used directly as remedial agents, but also as starting materials for the synthesis of drugs or as models for pharmacologically dynamic compounds. Herbal drugs have become one of the totems in this era of phytotherapy. The medicinal plants have huge commercial potentials throughout the world.

Medicinal herbs have been in use in one form or another, under native systems of medicine like Ayurveda, Sidha and Unani. India, with its conventional background, needs to raise its share in the world market. But distinct China, India has not been able to exploit on this herbal wealth by promoting its use

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in the developed world, even with their improved interest in herbal medicines. This can be achieved by judicious product identification based on diseases prevalent in the developed world for which no medicine or analgesic therapy is available.

Global Resource of Potential Medicinal Herbs

The subsistence of traditional medicine depends on plant species variety and the associated knowledge of their use as herbal medicine. In addition both plant class and conventional knowledge are important to the herbal medicine skill and the pharmaceutical industry where by plants make available raw materials and the conventional knowledge condition information.

Egypt

The first written records description the use of herbs in the treatment of illness are the Mesopotamian clay tablet writings and the Egyptian papyrus. About 2000 B.C., King Assurbanipal of Sumeria serial the collection of the first known Materia Medica, an old form of nowadays United States Pharmacopoeia include250 herbal drugs including garlic, still a preferred of herbal doctors. The Ebers Papyrus, the most essential of the preserved Egyptian manuscripts, was written around 1500 B.C. and includes much advanced information.

Arab

The Arabs cured and developed on the body of knowledge of the Greco-Roman period as they informed of new remedies from distant places. The primary storage of the Islamic materia medica is the text of Jami of IbneBaiar which lists more than 2000 element, exclude many plant products.

China

The earliest written information of the medicinal use of herbs in China consists of a collection of 11 medical works recovered from a burial site in Hunan province.

The burial itself is dated 168 B.C., and the texts look to have been composed before the end of the 3rd hundred B.C.

Some of the texts talk about exercise, diet, and channel medical care. More than 250 medicinal component derived from herbs and woods are food grain, legumes, fruits, vegetables and animal parts are mentioned. Underlying this entire text is the view that disease is the appearance of evil spirits, ghosts, and demons that must be repelled by conjuration, rituals and spells in addition to herbal remedies. As traditional Chinese medicine was modified and incorporate into kampo medicine, herbal medicine was markedly easy.

India

India, placed between China and the West, underwent a related process in the development of its medicine. The therapeutic that took place before India's Ayurvedic medical principal was similar to that of ancient Egypt or China . Ayurvedic medicine emerged during the growth of the philosophies of the Religious writings, Buddhism and other schools of thought in India. Herbs show an important role in Ayurvedic medicine. The principal Ayurvedic book of internal medicine, the Characka Samhita, describes 582 herbs. The primary book on surgery the Sushruta Samhita, lists some 600 herbal remedies.

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Experts accept that these books are at least 2000 years old. Kampo decrease when Western medicine was introduced between 1868 and 1912 but by 1928 it had begun to recreate. Nowadays 42.7% of Japan's Western-trained medical practitioners prescribe kampo medicines and Japanese national healthpolicy pays for these medicines.

India is a land of large biodiversity in which two (Eastern Himalayas and The Western Ghats of India) out of 25 hot spots of the world are located. India is also one of the 12 mega diversity countries in the world. India utilizes the benefits of many-sided climate from range in the Himalaya to tropical wet in the South and arid in Rajasthan. Such climatic condition has given growth to rich and many-sided collection in the Indian subcontinent.

Indian Herbal custom

India has one of the richest herbal medical traditions in the global. It is a tradition that is of remarkable passing connection for assure health security to the teaming millions. one fifth of all the plants found in India are used for medicinal intention. it is hard to estimation the number of medicinal and aromatic plants present world the substance remains true that India with rich biodiversity ranks first in % flora, which contain active medicinal ingredient. There are about 7000 firms manufacturing traditional medicines with or without normalization. Ayurveda give rational substance for the treatment of many internal diseases which are obstinate and diseased person in other systems of medicine.The primary uses of plants in medicine will continue in the future, as a source of alterative agents, and as raw material base for the natural process of semi synthetic chemical substance to be used in cosmetics, perfumes, and food industries.

Current Position of Herbal Medicine Market

According to the World Health Organization for 70-90% of the rural populations of the world the local therapist and other traditional healers are the only source of medical care. Recently even developed countries are using medicinal systems that relate to the use of herbal drugs and curative. Undoubtedly the request for plant-derived products has increased world. The request is estimated to increase in the years to come provide by the growth of sales of herbal supplements and remedies according to several surveys. This way that scientists, doctors, and pharmaceutical companies will be looking at countries like China, India. for their demand as they have the least number of medicinal plant species and the top trade of medicinal plants.

India has the knowledge and skill to create its Research and Development capabilities. Alternatively of exporting such a big amount of valuable resource with very low returns it can evaluate about developing its own Research and Development capabilities and produce finished goods in the form of modern medicines and health care products obtained from plant origin and based on the knowledge of unconventional system of medicine.

It provides many opportunities for developing nations to advance agrestic well-being.The market stock of herbal products made in developing countries remains relatively low due to lack of research and development and the huge investments in making standardized products. Natural process of active principles and manufacture of drug formulations require sophisticated technology and primary investment. In terms of the volume of medicinal plants exported India ranks 2nd in the global.

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Future aspect in herbal medicines

At the moment, scientific research on medicinal plants is being carried out most intensely in research institutes, universities and pharmaceutical laboratories as well as in the clinics of many developed countries. This research is oriented mainly in two directions. Firstly, the active ingredients of plants that have long been known for their healing properties are investigated. The second sphere of basic research is directed towards the discovery of new kinds of medicinal plants and new drugs from the more remote regions of the world, which have not been explored so far. Drugs of each and every traditional medicine, like Ayurveda, Unani and Siddha need to be tested and validated scientifically. Council for Scientific and Industrial Research (CSIR), New Delhi, is already involved in this field and validated about 350 formulations for different activities. This is a welcome trend since it attempts to marry traditional practice with modern knowledge for the betterment of health24. WHO has emphasized the need to ensure the quality control of herbs and herbal formulations by using modern techniques. Several countries have herbal pharmacopoeias and lay down monographs to maintain their quality. Ayurvedic Pharmacopoeia of India recommends basic quality parameters for 80 common herbal drugs

Ethno pharmacology in Herbal Drug Evaluation

Man, and maybe some of his closer relatives have always made use of plants to treat illness. The relation between man and plants has been very close throughout the improvement of human cultures. Ethnobotany is the study of plant-human in relation enclosed in changing ecosystems of natural and cultural components. An ethnobotanical text develops around a human communities use and management of flora. Plants have been a rich source of medicines because they produce a legion of bioactive molecules most of which probably develop as chemical defense against predation or infection. It is estimation that 265000 flowering species grace the earth of this less than one percentage has been studied thoroughly for their chemical constitution and medicinal value. Some kind of collection strategy is needed to examine such large resources. Ethnobotany strategy an defined two ways. First Ethno-ecological study and secondly, ethnobotanist can raise the considerable economic potential of yet undiscovered, unformed natural products.

The empirical knowledge of medicinal portion and their deadly potential was passed on by oral custom and sometimes recorded in herbal and other texts on material medica. Interest in conventional drugs is not new but has been spurred in recent years due to an increase of interest in renewable origins in traditional medicine by methodological advances in pharmacology and phytochemistry. The need to document plant uses and to activity to confirm their efficacy remains imperative. Ethnopharmacology is a knowledge base area of research that deals with the identification, description, observance and investigation of element used in various formula of traditional medicine and their result on animal models. It is also the study of the applicable forms of knowledge practice and cultures utilize them. Based on these thought process ethnopharmacology is recently define as "The knowledge base scientific exploration of biologically active agents traditionally employed or observed by male person". The subjective of ethnopharmacology are to recovery and document an important cultural in heritance before it is lost and to analyze and measure the agents employed.

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Most of the traditional drugs used in many countries have not been measure scientifically and hence documentation on their rational use is not easy.

About every class of drug exclude a model structure derivative from nature, showing the classical effects of that specific pharmacological class. A number of these natural products have come to us from the scientific study of curative traditionally employed by many cultures. Most of them are plant derived example: pilocarpine, vincristine, emetine, physostigmine, digitoxin, quinine, atropine and reserpine are some well-known examples.

Ethnopharmacological motive to recent medicine can lead to many novel useful drugs. Ethnopharmacology has a scientific keystone in the development of active therapeutics based up on conventional medicine of various ethnic groups. The purpose of ethnopharmacology is proof of these traditional preparations either through pharmacological collection or through the isolation of active component. Harmful activity can be encouraged such as the use of plants include tumor producing pyrrolizidine alkaloids. Selection of plant for serious study depends basically on two conceptualizations. One approach is random showing of plants for their medicinal value. Another approach is that ethnopharmacological study of plants of a particular part or cultural group depending on their use in traditional system by choosing a specific therapeutic mark.

Need and viewpoint of Ethno pharmacology

In medicinal plant activity botanical confirmation plays a vital role since without right identified material and becoming documented verifier example the results are at best suspect and at worst useless.

- Proper and scientific confirmation of indigenous medical knowledge.

- The effort's purpose at preservation and medicinal plants and biological variety.

- Scientific study of indigenous medicines to pass on in the long run to enhance.

- health care.

- Search for pharmacologically specific active principles from existing indigenous remedies.

- Promote rational use of traditional medicine to insure sound and cost-effective use of drugs by health professionals and consumers.

- Promote the safety efficacy and quality of traditional medicine practices by providing direction on regulative and quality assurance standards.

There are 119 drugs of known structure that are extracted from higher plants and used globally in allopathic medicine produced commercially from less than 90 species of higher plants.

Conclusion :

Loss of species due to demolition of habitat as well as loss of information of conventional uses of plants with the abrasion of native cultures, strikes a note of necessity into the search for the new compounds of remedial interest. The vital aim of ethnopharmacology should be to identify drugs to improve human illness using a thorough analysis of plants supposed to be useful in human cultures all through the world. Problems and views involved in attaining this goal are discussed. India should accept organized cultivation of medicinal plants that have export potential and import substitutions and their protection

should be done in suitable ecological conditions. In order to push India as a major player in the global herbal product market, herbal products should be consistent as per WHO [World Health Organization] guidelines.?

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