

A REVIEW ON: CURRENT STATUS AND FUTURE OF HERBAL MEDICINE

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ABSTRACT

The number of patients seeking alternate and herbal therapy is growing exponentially. Herbal medicines are the synthesis of therapeutic experiences of generations of practicing physicians of indigenous systems of medicine for over hundreds of years. Herbal medicines are now in great demand in the developing world for primary health care not because they are inexpensive but also for better cultural acceptability, better compatibility with the human body and minimal side effects. However, recent findings indicate that all herbal medicine may not be safe as severe consequences are reported for some herbal drugs. Most herbal product on the market today have not been

subjected to drug approval process to demonstrate their safety and effectiveness. Thousand years of traditional use can provide us with valuable guidelines to the selection, preparations and applications of herbal formulation. To be accepted as viable alternative to modern medicine, the same vigorous method of scientific and clinical validation must be applied to prove the safety and effectiveness of therapeutical product. In the present review we attempted to describe the present scenario and project the future of herbal medicine.

KEYWORDS: Herbal medicine, plant, natural, remedies, safety, who guidelines, herb drug interaction.

INTRODUCTION

Nature always stands as a golden mark to exemplify the outstanding phenomena of symbiosis. Natural product from plant animal minerals have been the basis of the treatment of human disease. Today estimate that about 80% of people in developing countries still relays on traditional medicine based largely on species of plants and animals for their primary healthcare. Herbal medicine are currently in demand and their popularity is increasing day by

day. About 500 plants with medicinal use are mentioned in ancient literature and around 800 plants have been used in indigenous systems of medicine. India is a vast repository of medicinal plants that are used in traditional medical treatment (chopra et al., 1956). The various indigenous systems such as siddha, ayurveda, unani and allopathy use several plant species to treat different ailments (Rabe and staden, 1997). The use of herbal medicine becoming popular due to toxicity and side effects of allopathy medicines.

Present scope of herbal medicine

India has one of the richest plant traditions in the world. These are estimated to be around 25,000 effect plant based formulation, used in folk medicine and known to rural communities in India. There are over 1.5 million practitioner of traditional medicinal system using medicinal plants in preventive, promotional and curative applications. It is estimated that there are over 7800 medicinal drug manufacturing units in India, which consume about 2000 tones of herbs annually. India's share in the export of herbals is USD 63 billion which is just 0.2% of the global herbal market. In 2012, the whole sales of Chinese herbal medicines reached more than US 83 billion which has 20% more than US 115 billion by 2020 and will reach 6 trillion by 2050 which in asia-pacific is the fastest and europe is the largest growing markets. More than 80% of India's 1.1 billion populations still use the non allopathic systems of medicine and hence herbal drug constitute a major share of all the officially recognised systems of health in India viz. Ayurveda, yoga, unani, homeopathy and naturopathy, except allopathy. India is the second largest exporter of medicinal plants in the world (after china). With more than 7000 medicinal plants, they produce over 70% of the herbal medicine demand across the globe. Therefore, herbal drug industries are very fast growing sector in international market.

In India, about 14 well recognised and 86 medium scale manufacturers of herbal drugs are present. Other than this about 8000 licensed small manufacturers in India are on record. In addition, thousands of vaidyas also have their own miniature manufacturing facilities. The size of the Indian ayurveda industry at ₹ 30,000 crores per annum compares well with the overall market size of the Indian wellness industry which is put at ₹ 85,000 crores. It is assumed that the Indian ayurvedic industry is projected to record a compounded annual growth rate of a robust 16% until 2025. India continues as the most important player in the global ayurveda market. Hence, the herbal medicines are increasing in market. Hence, there

is a wide scope for indian manufacturers for entering the growing worldwide opportunity of business in herbal pharmaceutical field.

Indian herbal product are registered in many other countries due to the proper standardization of the marketed products for safety and efficacy and this gaining the necessary reliability for the export of the product. Still with our own drugs and cosmetics acts and rules, defines GMP for traditional meficinal products, in schedule T and every effort should be made by each and every manufacturers so as to comply better with the global standards for capturing world market. Various herbal product category includes the detail study about herbal care market, herbal skin care market, herbal oral care, herbal chyawanprash, herbal balm. Apart from that herbal medicines are also entered in the field of environmental sciences, immunology, medical, phytochemistry and others where researchers are doing a vast number of innovative researches to promote in a new way of applications and new drug discovery. These scientific facts help significantly to the effective utilization of traditional herbal medicines. Moreover, indian culture is rich in herbal drugs therby causing a high incidence of their self medication as also these drugs are sold openly. The people who are not supposed to use herbal drugs are also using them frequently. Due to these factors in our country, the number of herbal product users is highest in the world. It is appreciable that union health ministry is working on a proposal to include the indian systems of medicine in to modern medical education which will be useful and fruitful provided evidence based facts of herbal drugs whose use is common in India are included in undergraduate curriculum. Some of the well known industries with annual turnover for more than 50 crores are Dabur, Zandu, Himalaya, Sree Baidyanath, Arya vaidya shala etc.

Medicinal plant parts exported from India, importing medicinal plants and their parts

Exporting of herbals

Botanical name	parts used
Acorus calamus	Rhizome
Argemone mexicana	Fruit
Curcuma amada	Rhizome
Curcuma longa	Rhizome
Curcuma aromatica	wild turmeric
Cassia lanceolata	leaves
Glycyrrhiza glabra	Root

Withania somnifera	vegetable rennet
Myrica nagi	leaf
Piper longum	Fruit
Rubia cordifolia	madder root
Symplocos racemosa	bark
Swertia chirata	whole plant
Terminalia chebula	bark and seed
Zingiber officinale	Rhizome
Wedelia calendula	leaf and root

Importing of herbals

Botanical name	parts used
Aloe vera	dried leaf
Adhatoda vasica	whole plant
Cinnamomum iners	bark and leaf
Curcuma aromatica	Rhizome
Garcinia indica	Fruit
Gloriosa superba	Tuber and seed
Juniperus communis	Fruit
Myrica nagi	Bark
Strychnos nux- vomica	Bark and seed
Phyllanthus amarus	Fruit
Ricinus communis	seed
Rauvolfia serpentina	Root
Ocimum sanctum	leaf
Tylophora purpuria	Root
Vinca rosea	leaf seed

Future Aspect of Herbal Medicine

Herbal medicine- based traditional medicine (™) practices remain widespread in developing countries and that of complementary and alternative medicine (CAM) is increasing rapidly in developed countries. This trend of growing and widespread use of herbal medicines is likely to increase even further throughout the world in the coming years with more and more scientific evidence of their quality, efficacy and safety coming from the Reaserchers.

However, in order to ensure quality and safety of herbal medicines, their productions, sale and use should be officially and legally controlled by established rules and regulations. But, regulations and registration of herbal medicines are not well developed in most of countries therefore, the quality of herbal products sold is not guaranteed.

Therefore, herbal medicines should be brought under legal control in all countries where they are used for medical and therapeutic purposes and efforts should be made to raise public awareness about the risks and benefits of using herbal medicines. One of the major challenges facing is the loss of medicinal plant species due to the non principled use of these resources. According to the international union for conservation of nature, there are between 50,000 and 80,000 flowering plant species that are for pharmaceutical purposes around the world. Among these numbers, about 15,000 species are exposed to a risk of extinction due to high harvesting and destruction of habitats and 20% of their wildlife resources are decreasing due to growing human populations and excessive consumption of plants.

Therefore, the environmental code of ethics that preserve biodiversity in the processes of exploiting natural resources to discover natural drugs are considered. Good agricultural practices (GAP) for medicinal plants are planned to regulates production and ensure quality and facilitate the standardization of herbal drug. It uses high quality, safe and non contaminated(raw drugs) herbal medicines to help to solve various problems such as environmental ecology, production, locations, germplasm, cultivation, collection and quality aspects of pesticide detection, macroscopic or microscopic validation, chemical identification of active compounds and checking of metal elements etc.

Recently omic techniques unravel the complicity associated with understanding of mechanism of action of herbal bioactive principles, which are introduced vistas of scientific methods for the modernization and standardization of several herbal medicines. These techniques are also able to measure phenotypes, ie., complex physiological and pathological traits. It is worthwhile to understand the new approaches and insights into herbal medicine through research and development (R&D) have led to the development of numerous traditional remedies and innovative drug discovery systems, which makes great impact on the field of biomedical science.

Therefore, overall it is concluded that the herbal drug industry is poised to make great jumps in coming years as a result of booming international demand with plant based market

products. Especially indian herbal industries are growing tremendously with their standardized market products with export of cosmetics, perfumeries, toilet and bath products, medicament etc.

Growth of industries is due to some following reasons.

1. Traditional system of medicine.
2. Medicinal plants in diverse land.
3. Annual production.
4. Safety and less side effects.
5. Awareness by indian government.
6. Importance of herbs.

International diversity and national policies

The diversity among countries with the long history and holistic approach of herbal medicines makes evaluating and regulating them very challenging. In addition, there are a great number of different herbs used. Legislative criteria to establish traditionally used herbal medicines as part of approved health care therapies faces several difficulties. In a survey conducted across 129 countries, WHO reported the following issues regarding herbal medicines: lack of research data, appropriate mechanism for control agency, information sharing, safety monitoring, and methods to evaluate their safety and efficacy. The support needed from different countries includes information sharing on regulatory issues, workshops on herbal medicines, provision of databases, herbal medicine regulations workshops, and international meeting.

National policies are the basis for defining the role of traditional medicine in national health care programs, ensuring that the necessary regulatory and legal mechanism are established for promoting and maintaining good practice, assuring the authenticity, safety and efficacy of traditional medicine and therapies and providing equitable access to health care resources and their resource information (WHO 2005). Another fundamental requirement is harmonization of the market for herbal medicines for industry, health professionals and consumers (Mahady 2001).

Herbal medicines are generally sold as food supplements, but a common regulatory framework does not exist in different countries. As a result, information on clinical

indications for their use, efficacy and safety are influenced by the traditional experience available in each place.

Market Value of Herbal Medicines

The average size of the global herbal market is of the order of around 62 billion dollars per annum. European Union nations are the largest market with the share 45% of total herbal market whereas ASEAN countries 19%, Japan 16%, north America 11%, rest of European Union 4% and other countries 7%. countries like Japan and china have successfully marketed their traditional medicine abroad (recall health tourism). Their alternative therapies are well accepted in Europe and US. It is expected that the global market for herbal products will be raised up to 5 tn by 2050 and subsequently herbal remedies would become increasingly important especially in developing countries.

Quality, Safety and Scientific evidence

Herbal medicines are generally considered to be safe and effective agents. Therefore, people more and more turn to herbal medicines because they believe that plant remedies are free from undesirable side effects. However, medicinal plant can be toxic intrinsically or when taken in combination with another preparation.

CONCLUSIONS

The growth of the pharmaceutical industry and the perpetual development of new and more effective synthetic drugs have not diminished the importance and relevance of medicinal plant products in many societies. Populations escalation in the developing world along with increasing awareness in the developed nations has greatly expanded the demand for plant products.

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