



Review Article

A Review on needs of medicinal plants for human beings

Monika Semwal*

*- Kukreja Institute of Pharmaceutical Sciences, Uttarakhand University, Dehradun, Uttarakhand, 248007.

ABSTRACT

Medicinal plants have been playing an essential role in the development of human culture. As a source of medicine, Medicinal plants have always been at forefront virtually all cultures of civilizations. Medicinal plants are regarded as rich resources of traditional medicines and from these plants many of the modern medicines are produced. For thousands of years medicinal plants have been used to treat health to add flavour and conserve food and to prevent diseases epidemics. The secondary metabolites produced by the plants are usually responsible for the biological characteristics of plant species used throughout the world. The microbial growth in diverse situations is controlled by plant derived products.

Key words: Medicinal plants, needs, Herbal needs

Corresponding Author: Monika Semwal, Kukreja Institute of Pharmaceutical Sciences, Dehradun, Uttarakhand, India, 248007

E.mail: monikasemwal31@gmail.com

Article Info: Date received: 17 Sept. 2019

Date accepted: 16 Dec. 2019

Cite this Article: Monika S., A Review on Adverse Drug Reaction including herbal and allopathic medicines. *Int. J. of Pharmacy Res.*, 2019; 10(3):1-3.

INTRODUCTION

Peoples have been contingent on nature for their simple necessities as being the sources for medicines, housings, food stuffs, perfumes, clothing, flavours, fertilizers and means of transportation throughout the ages. For the large amounts of world's population medicinal plants continue to show a dominant role in the healthcare system and this is principally true in developing countries, where herbal medicine has nonstop history of long use.[1] The development and acknowledgement of medicinal and financial aids of these plants are happening rise in both commercial and developing nations. The foundations of typical traditional systems of medicine for thousands of years that have been in reality have formed from plants.[2] The plants endure to offer mankind with new medicines. Some of the beneficial properties qualified to plants have recognised to be damaged and medicinal plant treatment is based on the experimental discoveries of hundreds to thousands of years. The earliest reports

stamped on clay tablets in cuneiform date from about 2600 BC are from Mesopotamia; among the materials that were used were oils of Commiphora species (Myrrh), Cedrus species (Cedar), *Glycyrrhiza glabra* (Liquorice), *Papaver somniferum* (Poppy juice) and *Cupressus sempervirens* (Cypress) are still used today for the cure of diseases spreading from colds and coughs to inflammation and parasitic infections.[2] The traditional medicine practice is common in China, India, Japan, Pakistan, Sri Lanka and Thailand. About 40% of the total medicinal consumption is ascribed to traditional tribal medicines alone by China. In Thailand, herbal medicines make use of legumes come across in the Caesalpiniaceae, the Fabaceae, and the Mimosaceae. It is assessed that in mid-90s, more than US\$2.5 billion have resulted from the sales of herbal medicines. The herbal medicinal provisions are more in demand than mainstream pharmaceutical harvests in Japan.[2,3]

Even today, plants are not only essential in health care, but form the best confidence of source for safe future medicines. In spite of the fact that now we have at our facility a number of modern drugs, it is still honestly urgent to discover and advance new therapeutic agents. It has been projected that the suitable therapy is available only for one third of the known human diseases. Therefore, the fight against diseases must be accepted on persistently.[3] Traditional plant medicines still enjoy significant position in the modern-day drug industries due to the minor side effects as well as the synergistic deed of the mixture of compounds.

Most of the chief drugs of the past 50-60 years, which have transformed modern medicinal repetition, have been isolated from plants. These chemical components exhibit therapeutic properties of plant and animal drugs. The WHO approves and helps the addition of herbal drugs in national health care lists because they are easily available at a price within the reach of a common man and are time tested and thus measured to be much safer than the recent synthetic drugs.[4] Thus, the investigation of pharmacologically and biologically dynamic agents found by screening natural sources such as plant extracts had controlled to the detection of many pharmaceutically valuable drugs that play a key role in the handling of human diseases. The phytochemical-pharmacological research work has recently yielded active solutions to certain diseases which synthetic drug industry has failed to have enough money. The most important among them are the research work on *Cathranthus roseus*, *Taxus* spp., *Lantana camara* and *Baccopa* spp. etc. Such plants were earlier measured as poisonous or hopeless, but now have been found to comprise molecules of high drug values and are considered as medicinal herbs of great significance.[5]

DISTRIBUTION ANALYSIS OF MEDICINAL PLANTS

The supply analysis of the medicinal plants demonstrations that they are spread across diverse habitats and site elements. Nearly about 60% of the medicinal plants in India are found in tropical forests in Eastern and western Ghats, Chota Nagpur plateau,

Aravalli's, Vindhyas and the Himalayas. Among the Himalayas, Kashmir Himalayan region is nestled within the North western folds of the recently designated global biodiversity hotspot of the Himalayas. It is an essential but geologically younger part of main Himalayan range.[6] Floristic prosperity of this region comprises an honestly good image of medicinal plants. The medicinal flora of Kashmir, though has not been compensated due care and Kashmir alone may have minimum two times this number. Some of the most important medicinal plants of Kashmir Himalaya include *Dioscorea deltoidea*, *Rheum emodi*, *Arnebia benthamii*, *Inula racemosa*, *Datura stramonium* *Aconitum heterophyllum*, *Artemisia* spp., *Podophyllum hexandrum*, *Juniperus macropoda*, *Hypericum perforatum*, *Hyoscyamus niger*, *Sassurea* spp., and *Picrorhiza kurroa* etc., growing in abundance in areas like Yusmarg, PirPanjal, Sonamarg, Gurez, Lolab valley, Gulmarg, Khilanmarg, Pahalgam and Tilail valley.[7] In addition, there is a number of aromatic and medicinal plant species grown in different high-altitude areas of Kashmir Valley. The important aromatic plant species contain Caraway (*Carum cervi*), Saffron (*Crocus sativus*), Siya zira (*Bunium persicum*), Garlic (*Allium sativa*), Coriander (*Coriandrum sativum*), Mint (*Mentha* spp.), Fennel (*Foeniculum vulgare*) and Hare's foot (*Trigonella foenum-graecum*). Many of these plants are used in standardized plant extracts.[8]

FUTURE PROSPECTS OF MEDICINAL PLANTS

Nearby is a promising future of medicinal plants as there are around half million plants around the world, and most of them are not examined yet for their medical activities and their hidden likely of medical events could be conclusive in the treatment of present and future. In the growth of human culture medicinal plants have played an important role, for example religions and different rituals.[9,10] Between the variety of modern medicines, many of them are produced circuitously from medicinal plants, for example aspirin[11]. Many food crops have medicinal effects, for example garlic. Studying medicinal plants provisions to understand plant toxicity and defend human and animals from natural poisons. The medicinal belongings of plants are due to secondary metabolite manufacture of the plants[12,13].

Keeping this in reflection there have been increased waves of interest in the field of research in natural product chemistry. This notice can be due to several factors, including therapeutic needs, the remarkable diversity of both chemical structure and biological activities of naturally occurring secondary metabolites, the utility of novel bioactive natural compounds as biochemical probes, the growth of novel and sensitive methods to detect biologically active natural products, improved procedures to isolate, purify, and structurally illustrate these active ingredients, and advances in

solving the demand for supply of complex natural products[14]. The situation of traditional medicine has also documented by World Health Organization (WHO) and has created policies, guidelines and standards for botanical medicines. For the cultivation, dispensation of medicinal plants and the manufacture of herbal medicines agro-industrial technologies need to be functional. Medicinal plants are funds of new drugs and many of the modern medicines are produced indirectly from plants [15,16].

REFERENCES

1. Suresha, S, Jayashankar.m and Vinu AK. (2018). Medicinal plants diversity in Muthathi Wild Life Sanctuary, Karnataka India. *Indian J. Pharm. Biol. Res.* 6(3):13-22.
2. Fakim, A.G. (2006) Medicinal plants: Traditions of yesterday and drugs of tomorrow. *Molecular aspects of medicine* 27: 1-93.
3. Harrison, P. (1998). Herbal medicine takes roots in Germany. *Canadian Medical Association Journal* 10: 637-639.
4. Jones, W.B. (1998) Alternative medicine-learning from the past examining the present advancing to the future. *Journal of American Medical Association* 280: 1616-1618. *The Journal of Phyto pharmacology* 351
5. Hamburger, M. and Hostettmann, K. (1991). Bioactivity in plants: the link between phytochemistry and medicine. *Phytochemistry* 30: 3864- 3874.
6. Singh, P. and Singh, C. L. (1981). Chemical investigations of *Clerodendron fragrans*. *Journal of Indian Chemical Society* 58: 626-627.
7. Rastogi, P. R. and Meharotra, B. N. (1990). In *Compendium of Indian Medicinal Plants*. Vol. I, 339; a) (1993) III: 194. PID, CSIR, New Delhi, India.
8. Philipson, M. N. (1990). A symptomless endophyte of ryegrass (*Lolium perenne*) that spores on its host a light microscope study. *New Zealand Journal of Botany* 27: 513-519.
9. Galbley, S. and Thiericke, R. (1999). *Drug Discovery from Nature*, Series: Springer Desktop Editions in Chemistry, Springer, Berlin.
10. Cragg, G.M., Newman, D. J. and Snader, K. M. (1997). Natural products in drug discovery and development. *Journal of Natural Products* 60: 52- 60.
11. Mittermeier, R. A., Gil, R. P., Hoffman, M., Pilgrim, J., Brooks, T., Mittermeier, C. G., Lamoreux, J. and Fonseca, G. A. B. (2005). Hotspots revisited: Earth's biologically richest and most endangered terrestrial ecoregions. Pp 392. Boston: University of Chicago Press.
12. Kaul, M. K. (1997). *Medicinal plants of Kashmir and Ladakh: temperate and cold arid Himalaya*. Indus Publishing, New Delhi.
13. Singh R. Medicinal Plants: A Review. *Journal of Plant Sciences*. Special Issue: Medicinal Plants. Vol. 3, No. 1-1, 2015, pp. 50-55.
14. Hosseinzadeh, S., Jafarikukhdan, A., Hosseini, A. and Armand, R. (2015). The application of Medicinal Plants in Traditional and Modern Medicine: A Review of *Thymus vulgaris*. *International Journal of Clinical Medicine*, 6, 635-642.
15. Clark, A.M. (1996) Natural Products as a Source for New Drugs. *Pharmaceutical Research*, 13, 1133-1141.
16. WHO (1993) *Research Guidelines for Evaluating the Safety and Efficacy of Herbal Medicines*. Manila.