

# Research & Reviews: Journal of Medicinal & Organic Chemistry

## A REVIEW ON MEDICINAL PLANTS

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### Review Article

Received: 12/10/2016  
Revised: 18/10/2016  
Accepted: 26/10/2016

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**Keywords:** Drugs, herbal,  
medicinal

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#### ABSTRACT

Now-a-days many people do not put faith in the natural plant derived medicines but rather are used to taking the scientifically developed tablets and pills. The traditional life science has taken care of humankind for hundreds of years. Many people assume that medicinal plants were hard to find and a lot of effort has to be put in to find them in the forest regions [6-10]. With the latest advancements in the field of science the medicinal plants were gradually replaced by the modern drugs and this resulted in disappearance of house pharmacy in no time.

However, due to globalization and availability of internet, lot of people have got inclined towards natural drugs. The improvement of facilities across the globe is attempting their best to analyse the characteristics of the market plants and realize remedies for a lot of crucial diseases from their extracts. This can be currently termed as the revolutionary phase in the field of drugs.

#### INTRODUCTION

Plants produce several chemical compounds that have biological functions, as well as provide defence against insects, fungi and anthrophagous mammals. A minimum of 12,000 such compounds are isolated till now; which is considered to be only accounting to 10% of the total availability. Chemical compounds in plants mediate their impact on the humans through processes similar to those already well understood for the chemical compounds in conventional drugs; so they are almost identical to conventional drugs as far as the mechanisms of action is considered. This allows medicinal plants to possess useful medical specialty, however conjointly provides them an equivalent potential as typical pharmaceutical medication to cause harmful effects as well. Moreover, plant material comes with a wide range of compounds which can have unwanted effects which can be overcome by processing.

Plants are the backbone of life on Earth and an essential resource for humans. Everything humans consume is obtained directly or indirectly from plants. Plants are the fortitude of all habitats; wildlife is dependent on plants, except for humans. Plants regulate the water cycle, distributing and purifying water through transpiration. Plants also recycle the air people breathe<sup>[1-39]</sup>. They store carbon and regulate the amounts of carbon dioxide and oxygen in the air. Another way plants are significant are that they are used for medicine. Ever since times immemorial plants are accustomed to cure illness or strengthen physical health in humans<sup>[40-43]</sup>.

An example being the Egyptians, consistent with records and qualitative analysis dating back to 1600 BC, plants like sage, chamomile and sweet basil were believed to cure sore throats and headaches<sup>[44-46]</sup>. In the present era, plants are still used as a range of treatments to physical problems of the human body. In China 40% of medication comes from plants and in Asian countries it is 80%. Several typical medicines originate from plant sources, a number of the foremost effective medicine are primarily plant based, like painkiller taken from bark of willow and painkiller taken from the poppy<sup>[47,48,49]</sup>. The roots of rhubarb were used as a tonic and laxative for upset stomach. The inner bark of the *Ulmus rubra* is employed to cure inflamed tissue. Aloe is one among the widest and most well-known plants used for treatments<sup>[50]</sup>. A branch of science contributing to the study of medicinal uses of plants to pave way for future medicines is referred to as "Ethnobotany". Various plants are also used in the form of spices and herbs in various cuisines and food preparations.

**Some important Medicinal plants:**

- 1) **Amla:** It is generally referred to as the indian gooseberry. The edible part is the fruit which is widely used as a rich supplement source of Vitamin-C , for Cough, used as a laxative and for hyperacidity<sup>[50-55]</sup>.



**Figure 1:** Amla fruit

- 2) **Ashoka:** The useful part is the dry bark flower of the tree. It relieves menstrual pain, uterine and diabetic disorders<sup>[56,57]</sup>.



**Figure 2:** Ashoka

- 3) **Tulsi:** It is the mostly available plant that can be seen in every household. It is also referred to as basil and is used to cure cough, cold, bronchitis and loss of appetite. It is mostly used as an efficient expectorant<sup>[58-62]</sup>.



**Figure 3:** Tulasi

- 4) **Bael:** Commonly known as Bilva. The edible part which is the fruit and the useful part is the bark and the fruit. It is used to treat diarrhoea, dysentery, constipation<sup>[63-69]</sup>.



**Figure 4:** Bilva

- 5) **Peppermint:** It is also known as pudina. It is widely available and it is mostly used as a source of flavourant in various cuisines<sup>[70-75]</sup>. The leaves are edible and helps to cure indigestion and healing bruises.



**Figure 5:** Pudina

- 6) **Henna plant:** It is also commonly available in the household. This medicinal plant is used to cure burns, scars etc.



**Figure 6:**Henna plant

- 7) **Neem:** This plant is scientifically referred to as *Azadirachata indica* . The medicinal properties lies in the rhizome part of the plant<sup>[76-80]</sup>. It helps to cure hypertension,epilepsy. Also used as a sedative and analgesic.



**Figure 7:** Neem

- 8) **Cinnamon:** This plant is commonly used in the household as a source of spice for cooking. It has a unique pungent odour and highly beneficial to cure pulmonary problems like asthma, bronchitis, and cardiac problems.



**Figure 8:** Cinnamon

Many such hundreds of plants are having high medicinal properties that are used to develop conventional drugs<sup>[81-84]</sup>. Almost universally, people throughout the globe have displayed a complicated understanding of herbal plants and their advantages in healing the ailments<sup>[85,86]</sup>. The data that these alleged "primitives" possessed has become the muse of recent drugs, however the reality is that a lot of them are lost within the method of processing<sup>[87]</sup>. Several prescription drugs obtained from medicative plants, however in most cases the natural version is preferred for promoting true healing<sup>[88]</sup>.

Routine systems of antitoxin obey to be in foreign lands skillful in unheard-of cases. Population increase, convenience of availability of drugs, brazen bid of treatments, side effects of conventional drugs have paved way for the development and processing of the natural medicine which is mostly considered safe for the humans and treat numerous diseases<sup>[89,90]</sup>.

Recently, WHO (World Health Organization) survey showed that 80% of population worldwide depend on natural medicines at some stages of their primary health care concerns. According to report generated by WHO around 21,000 plant species have the high capacity for being employed as medicinal plants for treatments. Treatment with herbal plants is safe as there are less side effects. These remedies are inter connected to mechanisms in nature, which is the biggest merit. The outstanding fact is that, use of natural medicine treatments is referred to any age groups and the sex.

The growing target on herbal plants is turning into the answer to the pathological state of the world. Owing to this knowledge, trade market of plants with healing properties is growing internationally. Most low income countries note the herbal plants as a very integral aspect of their culture. However, the application of ancient medication has suffered a hit back throughout medieval times in most low and middle income countries, so losing patronage particularly in urbanised countries.

These countries till date still tolerate the consequences of exploitation as they use artificial medication as a primary source of the treatment for sickness and other ailments now also. The continuous usage of these

artificial medicines is causing a problem to several low income countries, as most illiterate individuals lack health care services attributable to high cost drugs and health services.

With the implementation of several scientific processes and procedures, scientists and researchers are now able to figure out the advantages and disadvantages principles in plants use in medicine. After thorough processing and testing the researchers have found out that actually herbal plants are therapeutically functional , some of them are ; Lobeline ,Morphine, Atropine ,Atisine, etc.

The usage of plants to treat diseases is very familiar since old times. For hundreds of years Native people of assorted civilizations have employed plants as medication for all types of healing. Herbal medicine was the idea of Indians and Chinese for millennium, and that they now even are a part of the present day studies. It's from these sources that the european drug business grew huge.

But sadly the modern aspect of natural medicinal plants is completely different from what it absolutely was. In recent times, we are greatly moved away from nature, where we regularly show either concern or leave out the use of plants. The general public cannot move to wild edibles these days, as far as the food or medication is concerned. On the other hand, most people cannot maintain their own herbarium for useful for medicinal functions.

While all that may sound good, one may be surprised to know that what has science investigated when it is concerned to plants' outstanding role in medical field. Most of the latest science is often not concerned of the power of plants for medicinal functions. Likewise, there is some unique research studies that have generally linked many plants as being effective treatment options for certain disease conditions. But, there is both a lack of proper scientific knowledge in this field and the objection by many uneducated people to understand plants beyond the limited scientific source.

The importance of medicinal plants in the economics aspect is also demonstrated through a survey of data the Federal Republic of Germany: as 40% of all the medicine sold by the retail pharmacists is of biological origin and 25% are consisting of plant extracts. Now-a-days doctors are prescribing both synthetic drugs and herbal drugs to treat various ailments.

Many folklorists, anthropologists and scientists are broadly studying the traditional medicine. So an attempt has been made by many countries to amalgamate traditional healthcare system with modern medicine. This revolutionary step has helped the third world countries who have inadequate health services and which are not financially developed to purchase the drugs due to high cost. Attempts have been made to develop a compendium comprising of all the household remedies from different places of India.

Most of the people in the world have access only to most herbal medicine, so it could be argued that any disease could be treated with herbal medicine. People residing in highly industrialised areas, however, have the merits of being able to choose herbal treatment from a palette of healthcare options which include modern medicine. In this regard the different medical services are correlative to each other, and the choice of one over another is often a matter of personal option.

Without any hesitation one can say that natural medicine is better for the treatment of many small ailments and also life-threatening conditions. Natural medicine, however, has much to offer in the treatment and management of a wide range of dreadful diseases that do not necessarily have medical emergencies.

Natural medicine is not a substitute of insulin in diabetes, anti-viral drugs in HIV/AIDS or chemotherapeutic drugs in cancer and all they can do in these conditions is to improve the quality of life through defence of secondary symptoms and side effects of pharmaceutical drugs. Only experienced practitioners should treat patients with these conditions, and wherever possible it should be done in approval of the patient's concerned physician.

Herbal medicine has its disadvantages and an experienced practitioner is aware of the dangerous limits of the drugs and refers to another health professional if required, let it be it a counsellor, psychologist, osteopath or medical practitioner. Natural medicine is used on a diverse range compared to other therapeutic drugs, in particular nutritional therapy.

Good health practitioner can successfully combine herbal medicine with modern medicine treatment, with monitoring of the capacity for drug interactions between herbal medicines and pharmaceutical drugs. The case of patient co-management, a superior treatment feature can be achieved if all physicians are involved and are willing to communicate and cooperate.

## CONCLUSION

As our way of life is in correspond procurement to techno-savvy, we are drifting towards extensively foreign hieroglyphic .We are linked with nature so have to face the consequences and challenges of nature. As plants are genuine staples they are far devoid of side effects capital, and are rather dependable, eco-friendly and locally accessible. With regard to this no buzz is required to promote to plant usage in medicine.

These herbal merchandise are in these days the protectors of health compared to false drugs. Anyway herbs had been priced for their sanative, essence and value for centuries, the phony retail of the coexistent majority surpassed their interest, for duration. However, the misapplication on imitation drugs is given up and people are returning to the natural drugs. It's high time to promote the implementation of medicinal plants in the health care services.

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