

Prospective of Herbal Medicine in Egypt

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Abstract

The great genetic biodiversity of medicinal plants found in Egypt played an important role in the use of Egyptian herbal medicines throughout the years. The ancient Egyptians, used them in therapy protocols, which were clarified in their papyri and tombs walls; and passing by the modern prescriptions, trends were found for using traditional alternatives to costly medications, either alone or as supplements accompanying the chemical drugs in the treatment protocols. Though many challenges are found in Egypt for herbal medicine industry and marketing, as lack of scientific evidence, quality standards, marketing strategies, extensive documentation to protect intellectual property and post-harvesting technologies; yet good agriculture practice, proper marketing plans, and modern molecular technologies can help the efficient use of those medicinal plants and their exportation worldwide, fetching a high income source to Egypt for carrying out more scientific research in agriculture and developing green technologies to produce pollution-free medicinal plants.

Keywords: Herbal medicine; Egypt; Challenges; Future prospective; Medicinal plants

Introduction

Ancient Egyptians' herbal medicine

The ancient Egyptians had used a various number of herbs in their medicines; which was clearly explained in their papyri. These included frankincense, fennel, linseed, castor oil, aloe, senna, henna, myrrh, thyme and many others [1]. Ancient Egyptians consumed a lot of garlic and onions for their belief that they treat problems of the respiratory and digestive systems, respectively; this was exemplified by the presence of garlic cloves in Tutankhamen tomb [1]. In addition, honey, milk, and egg were used in preparing drugs. Herbs were added to wine to macerate, and then drank as medicine [2]. They used minerals and all plant organs as leaves, flowers, roots, seeds, and fruits; applying them in various pharmaceutical forms as creams, pastes, lotions, teas, drops and others [3].

Herbal medicine in modern ages

In modern medicines, physicians weren't common with the use of herbal medicines in their prescriptions because they considered them as folk traditional medicines. Most of the herbal drugs have been registered as food supplements instead of drugs [4]. Nowadays, a coming back thought of the importance of herbal medicines beside conventional medicines, offering safe, fewer side effects, and low-cost effective drugs.

The World Health Organization (WHO) stated that health goals can't be achieved without the incorporation of herbal medicines and that 80% of the population depend on them for their health care [5].

Generally, rural people in developing countries are obliged to the use of medicinal plants for their remedies due to their poverty and lack availability of modern medicines [6]. Egypt being a developing country has a demand for herbal medicines as large as that for developed countries which are seeking for alternatives from traditional medicine. A clear example is that St. John's wort is twice prescribed in Germany than the drug Prozac® for anti-depression [5]. Additionally, the use of herbal medications can help in the cure of one of the highest prevalence viral infections (Hepatitis C) found in Egypt, where herbs can aid in regenerating the liver tissue after the medical eradication of the virus and can help in the relief of the used drugs side effects in the treatment protocol [7].

Biodiversity of Egyptian medicinal plants

There are abundance and biodiversity of medicinal and aromatic plants in Egypt, as reported in Flora of Egypt [8-12], for its geographical position, new available reclaimed areas, climatic, soil conditions, qualified scientists, new technologies and low-cost manufacture. In addition, numerous plants were introduced to Egypt and acclimatized [13]. All these criteria made Egypt to be considered as a potential site for exporting these herbs and medicinal plants, but there is a fear of depletion, slaughter harvesting, and extinction of these herbal medicines [5].

Challenges for herbal medicine industry and marketing

Moreover, many challenges are found in Egypt for herbal medicine industry and marketing, including the lack of scientific evidence, quality standards, marketing strategies for many traditional medicines; the need for extensive deep documentation to protect intellectual property of these medicines by patents; and developing post-harvesting technologies for storage, packaging and processing of the medicinal plants [14,15]. A higher income will be fetched to Egypt if its exports of the medicinal plants are processed instead of being raw material. Herbal extracts represent about 33% of the Egyptian exports of medicinal plants [5].

Criteria needed for efficient herbal medicine industry

This leads us to think of the need for good agriculture practice; more clinical trials; studies on the synergistic effects and contraindications of herbs; more pharmacological research on newly isolated compounds and/ or extracts [16-20]; the application of green technologies, rapid high performance extraction methods, especially with increasing risk of solvent pollutions and increasing the costs of energy worldwide [21]; applying standardization of plant extracts and new drug delivery systems [22,23]; and the use of modern technologies as molecular pharmacognosy in the fields of solving taxonomical problems of

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Received March 13, 2018; Accepted March 19, 2018; Published April 13, 2018

Citation: Mostafa NM, Singab AN (2018) Prospective of Herbal Medicine in Egypt. Med Chem (Los Angeles) 8: 116-117. doi: 10.4172/2161-0444.1000502

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variety confusion; increasing yield, quality and growth of medicinal plants; conservation of the endangered species, controlling the plant metabolic pathways, biosynthesis of secondary metabolites and producing pollution-free medicinal plants [24].

Conclusion

We conclude that, Egypt represents a country with great plant biodiversity and a central core for the use of traditional herbal medicine throughout the decades. Yet, appropriate planning strategies should be undertaken for the efficient use of these medicinal plants and herbs locally; their marketing and exportation globally for mutual benefit purposes.

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