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From ethnomedicinal to ethnopharmacology**

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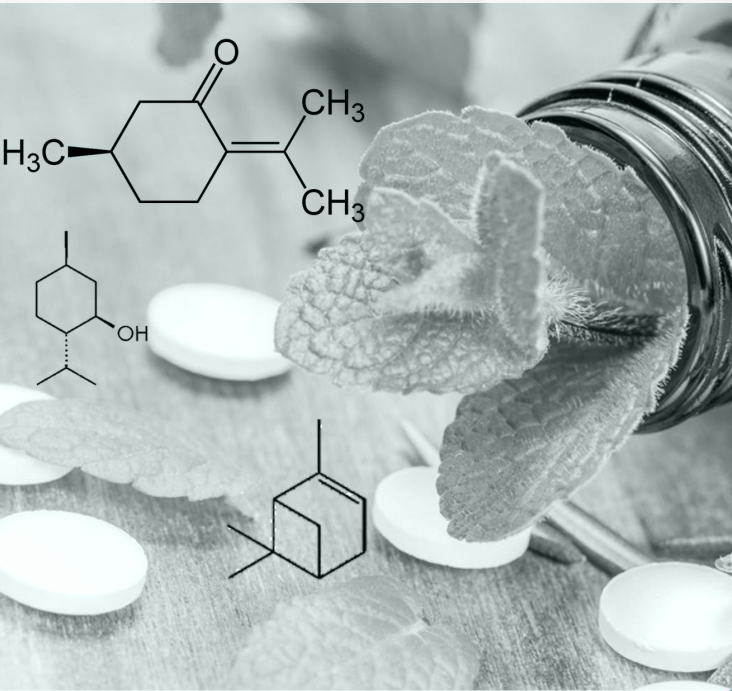
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Preface

The human's first interest in plants dates back to his need for food, shelter, and protection. Over time, his attention shifts to the remedies for injuries and diseases, which is a field of science that is known today as ethnobotany, which studies the direct interaction between plants and humans. Medicinal plants that constitute an important part of ethnobotany have been used by humans for the treatment of various diseases for thousands of years. Plants are used by human beings for healing since ancient times. Over time, people have observed that animals living in their natural habitats do not eat every plant and stay away from poisonous plants, while they have started to use the plants on themselves in case of illness, mostly by trial and error method. With the invention of writing, the medical experience and information accumulated until then began to be recorded. According to Assyrian and Babylonian sources dating back to the 2000s B.C., it was discovered that approximately 250 herbal-based drugs such as mustard, dates, hemp, and olives were used in treatments. Nabu-Leu, a physician who lived in the time of the Assyrians, kept his records in cuneiform, which is exhibited in the Museum of Asia Minor in Berlin and is accepted as the "oldest known pharmacopoeia".

In Mesopotamian civilizations, plants constitute a large part of the medicines of the period. The use of medicinal plants in the Egyptian civilization is common, as mentioned in Homer's *Odyssey* in the 9th century B.C. Especially in the Ebers papyrus, there are about 800 recipes with 77 herbal and animal drug names. Ayurveda, which forms the basis of traditional Indian medicine, is one of the most recognized medical systems in the world, surviving and flourishing from history to the present. Ayurvedic medicine influenced Greek medicine, the medicine of Islamic civilization through Mesopotamia, and, finally, today's modern medicine. Treatment in Chinese traditional medicine generally includes dieting to restore balance, herbal prescriptions, and acupuncture therapy. Since traditional Chinese medicine has been started to be practiced, which started in the 2000s B.C., not only plants but also animal sources and minerals have been used in treatments. There are almost 5000 herbal resources in the Chinese *Medica Materica* (monograph book), which was recovered in 1977. In ancient Greek medicine, physical and spiritual training, hot water baths (physiotherapy), simple herbal medicines, and diet practices were also used to heal. The use of laxative and emetic plants was one of the treatment methods applied in Hippocratic medicine as well as in Egyptian medicine. Hippocrates' famous saying, "Let food be thy medicine and medicine be thy food" emphasized the importance of nutrients and plants in a healthy diet. Dioscorides, in his book "*Peri Hyles Latrikes*", included 1066 drugs consisting of medicinal plants and minerals. During Islamic medicine in the Middle Age, there were very famous physicians, who used plants in the treatments, i.e., Taberî, Razi, Dinaverî, Birûnî, Zehravî, and Ibn-i Sina. For instance, Birûnî wrote about the benefits of 3000 plant species and how to use them as a medicine. Ibn-i Sina mentioned about 800 plants in the second volume of her greatest work, "*Kanun-u Fi't-Tib*". Many animal, mineral, and plant origin sources were listed in alphabetical order in 2353 items in the work called "*el-Mufredat*" by Ibn'ul Baytar, who pioneered botanical science.

In brief, since ancient times, human beings have used plants for therapeutic purposes and after the invention of writing, they tried to record their treatment methods on various materials from clay tablets to papyrus. The concept of folk medicine has emerged in every society by transferring knowledge orally through generations.

Although folk medicine practices remained at a more local level, systems such as Chinese traditional medicine and Kampo medicine, which are treatment systems with written sources, have been more universally accepted. Therefore, traditional knowledge is a very important resource, especially in drug development and research. The documentation of plants used in traditional medicine systems and folk medicine still maintains its importance, as the ethnopharmacological records of the plants used in the treatment in the past centuries help to plan and guide today's researches. It also allows the ethnopharmacological activities to be examined and proven with modern techniques. Recording ethnobotanical information is also crucial for the discovery of new drug molecules. It is known that many drugs containing many bioactive substances such as digoxin, digitoxin, morphine, reserpine, taxol, vinblastine, vincristine, which are used in treatment today, are obtained from ethnobotanical studies. As in the past, plants are undoubtedly important raw material sources for the treatment of diseases today.

In short, ethnobotanical studies enable the traditional knowledge of the people to be transferred to scientific research and thus, new therapeutic agents can be developed. Ethnopharmacology, a sub-branch of ethnobotany, scientifically reveals the activity of the active substances in medicinal plants on living things. In recent years, ethnopharmacology has become increasingly popular as more and more studies are conducted, confirming the positive effects of herbs on human health. The study of drugs derived from natural sources has provided strong scientific support for further research into the medicinal properties of plants. New drugs have been discovered through the study of ethnopharmacology. Many common medicines used in contemporary society originate, at least in part, from natural sources. In this sense, documentation and preservation of ethnobotanical and ethnopharmacological knowledge is extremely important as well as transferring ancient knowledge to the present and to future generations. By considering these facts, in this special issue, a theme entitled "Medicinal plants from past to present: From ethnomedicinal to ethnopharmacology" has been chosen by the Turkish Journal of Botany to provide a novel understanding of plant use in medicine.

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