

PHARMACOLOGICAL ASPECTS OF HERBAL REMEDIES

Prof. Dr. Omur Demirezer

PHYTOTHERAPY

- Humans and animals have always used plants. The initial use of plants as medicines by humans is thought to have been the result of “instinctive” dowsing. Animals in the wild provide evidence that this phenomenon still occurs: they eat plants that heal them, and avoid plants that do them harm. Presumably humans also possessed this instinct at one time.
- Herbs are simply sources of compounds to isolate and then market as drugs, but to some herbs and crude plant extracts are effective medicines to be respected and appreciated.
- The term used to describe the modern clinical use of herbs in many European countries is phytotherapy. "Phytotherapy" (from Greek "phyton" plant and "therapy" treatment) is a treating method by using phytomedicines. Phytotherapy is the science of using plant medicines to treat illness. The term of phytotherapy was reported from Henri Leclerc (1870-1955) firstly.

- With the growing interest for alternative approaches in treating diseases, phytomedicines have an important role for the development of new therapeutic agents. Formulation of national
- policy, legislation, regulation and licensing as well as approval of selected phytomedicines for
- use in human life should be realized by Health Authorities

- The traditional herbal medicines (HM) and their preparations have been widely used safely and effectively for existence of human race in many countries. In 1985, the World Health Organization (WHO) estimated that perhaps 80 percent of the world's population depend on plants to treat many common ailments. Approximately 50 % of modern drugs are derived from plant source.

- Despite its existence and continued use over many countries and its popularity and extensive use during the last decade, traditional medicine has not been officially recognized in most countries.

- When traditional medicine is introduced into the western world, it becomes Complementary /Alternative Systems of Medicine. The reason is because of the comparative lack of evaluation of their quality, efficacy and safety issues. The Western medical system does not encourage the use or scientific validation of herbal therapy, so the mainstream public knows relatively little about it. Consequently, education, training and research in this area have not been accorded due attention and support. The quantity and quality of the safety and efficacy data on traditional medicine are far from sufficient to meet the criteria needed to support its use world-wide.

- Herbal remedies have reached their highest usage since the FDA's decision to categorize them as food supplements in 1990.
- Medicinal plants are an important source for drug development not only when plant material is used directly as therapeutic agents, but also as starting materials for the synthesis of drugs
- and as models for pharmacologically active compounds. Approximately 50 % of modern drugs are derived from plants. Demand for medicinal plants is increasing in both developing and developed countries. Therefore, regulation of exploitation and exportation is essential,
- together with international cooperation and coordination for their conservation to ensure their availability for the future.

- In recent years, many developed countries have shown growing interest in alternative or complementary systems of medicine, with a resulting increase in international trade in herbal medicinal products. This stimulus consequently exists in both developed and developing countries, to assess and rationalize practices, and to control commercial exploitation through OTC sale of proprietary labelled herbal medicines.

- Legislative controls in respect of medicinal plants have not evolved around a structured control model. There are different ways in which countries define medicinal plants or herbs or products derived from plant material. The countries have adopted various approaches to licensing, dispensing, manufacturing and trading to ensure their safety, quality and efficacy.
- On the other hand, a relatively small number of plant species has been studied for possible medicinal applications. Therefore, appropriate research methodology, standardization of herbal medicines; safety and efficacy of traditional remedies as well as national policy for legislation, regulation and licensing of herbal medicines by health authorities have to be realized.

- The definition of herb is a plant or plant part or plant material used for medicinal purposes.
- Herbal medicine is a medicinal preparations made from a plant, can include the fresh or dried herb or herb part, whole, chopped or powdered or an advanced form of the herb usually made via extraction by a solvent such as water, ethanol or an organic solvents (acetone). Such advanced herbal preparations often processes in a way that establishes relatively fixed chemical parameters are called as standardized extracts. Advanced herbal products are usually referred to as Phytomedicines.

- Herbal medicines have been playing an important role in the primary health care of the people around the worlds.
- In order to keep place with the modern medicines, the production of safe and effective herbal medicines in a standardized way is essential.

- Herbal preparations are less toxic than their synthetic counterparts and offer less risk of side effects.
- The growth of the pharmaceutical industry and the increasing development of new synthetic and biological medicines have not diminished the importance of medicinal plants.

- During the 21st century, increasing interest in the industrialized nations has greatly expanded the demand for medicinal plants and their products.
- Regulations in countries for the assessment of the quality, safety and efficacy of phytomedicines and the work of WHO in supporting the preparation of model guidelines in this field have been helpful in recognition of their role in health care systems in different parts of the world.
- Improvements in cultivation techniques, coupled with improvements in quality control and standardisation of potency, will continue to increase the effectiveness of herbal medicines.

- Commercial herbal preparations are available in several different forms: bulk herbs, teas, tinctures, fluid extracts, and tablets or capsules. An extract is a concentrated form of the herb, obtained by mixing the crude herb with an appropriate solvent (such as alcohol and / or water).
- When an herbal tea bag in hot water, it is actually type of herbal extract known as an infusion. Teas often are better sources of bioactive compounds than the powder herbs, but are relatively weak in action compared to tinctures, fluid extracts, and solid extracts.