

The contribution of medicinal plants to modern medicine

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Medicinal plants have been an integral part of the Chinese, Indian and Arabian ancient culture as medicine and their importance even dates back to the Neanderthal period (Solecki, 1975). In spite of this, we know little about medicinal plant use by common people in medieval and early modern Europe. In the 18th century knowledge about plant derived drugs expanded, but attempts to identify the active ingredients from plants were unsuccessful. In the early 19th century, the term 'pharmacognosy' was coined by Johann Adam Schmid (1759-1809), but the main shift came when it became clear that the pharmaceutical properties of plants are due to specific molecules that can be isolated and characterized. An other achievement in the field of medicinal plants was the development of methods to study the pharmacological effect of natural products and vegetable extracts. Claude Bernard (1813-1878), who conducted detailed studies on the pharmacological effects of curare (a drug and arrow poison used by the American Indians of the Amazon), is considered one of the first scientists in this field.

The 20th century saw the integration of ethnobotanical, pharmacological and phytochemical studies, a process that had taken many and many years, but which allowed the development of a new approach to the study and the pharmaceutical use of plants.

Ultimately, herbal remedies and natural products became transformed into chemically defined drugs. These offer large structural diversity (Clardy and Walsh, 2004), and modern techniques for separation, structure elucidation, screening and combinatorial synthesis (Ganesan, 2002; Steinbeck, 2004), have led to revitalization of plant products as a source of new drugs. This has opened up new opportunity and avenues for drug development.

Lastly, the introduction of plants in the form of nutraceuticals and dietary supplements are also changing the plant-based drug market (Raskin et al., 2002).

In conclusion, the use of medicinal plants is still an important part of the medicinal systems of the world, and Europe is no exception (Fabricant and Farnsworth, 2001).

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