PROSPECTS OF STUDYING OF SYMPHYTUM TAURICUM WILLD. HERB

Muaiz S., Mashtaler V.V., Mala O.S.
Scientific supervisor: Gontova T.M.
National University of Pharmacy, Kharkiv, Ukraine
vmashtaler7@gmail.com

Introduction. The main task of modern pharmacognosy is to find new plant sources of biologically active substances. Particularly promising are plants that are easy to cultivate. In this direction, our attention was drawn to the Symphytum genus representatives of the Boraginaceae family. In medicine, Symphytum asperum Lepech. is used in the antitumor Zdrenko collection and Symphytum officinale L. is an important component of drugs for the treatment of traumatic injuries, diseases of the spine and joints, prevention of hematomas, varicose veins, osteochondrosis and more. Symphytum tauricum Willd. is a little-studied representative of the genus. It is a biennial or perennial pubescent plant with an upright branched stem, numerous ovoid wrinkled leaves and light yellow, almost white flowers in racemous bostryxes. Tubular-campaniform corolla is longer than 2-3 times the calyx. Coenobium consists of small dark gray nutlets 2-3 mm long crescent-shaped with a wrinkled surface. Symphytum tauricum Willd. occurs in Southern-Eastern Europe, the North Caucasus, northern Turkey, is cultivated in some European countries as a decorative.

Aim. The aim of our work was to study the qualitative composition of Symphytum tauricum Willd. herb.

Materials and methods. Raw materials were harvested in the Kharkiv region during the period of mass flowering. It's dried by air-shadow method. To study the qualitative composition of the raw material was ground and extracted with purified water three times on a boiling water heater with a reflux condenser. The extracts were combined and evaporated to 1/3 volume and filtered. Then gradually fractionated with organic solvents: chloroform, diethyl ether, ethyl acetate, n-butanol. The obtained fractions were investigated for the presence of biologically active substances by qualitative reactions and chromatography on paper and in a thin layer of sorbent.

Results and discussion. For the first time it was discovered and identified that the studied raw material contains organic acids (malic, citric, ascorbic acids), free aminoacids (aspartic and glutamic acids, arginine, tyrosine, proline, leucine, methionine, phenylalanine, lysine), free monosaccharides (D-glucose and L-arabinose), hydroxycinnamic acids (chlorogenic, neochlorogenic, caffeic, rosemary acids), phenolic acids (gallic, ellagic acids), flavonoids (rutin), coumarins (umbelliferone, scopoletin).

Conclusions. The obtained results of studying the qualitative composition of biologically active substances in Symphytum tauricum Willd. herb will be used in further research.

IMPLEMENTATION OF GOOD AGRICULTURAL AND COLLECTION PRACTICE (GACP) PRINCIPLES IN UKRAINE ON SAFFRON CULTIVATION EXAMPLE

Mykhailenko O., Georgiyants V.
National University of Pharmacy, Kharkiv, Ukraine

Introduction. Since 2013 the guideline "Medicinal herbal raw materials. Good Agricultural and Collection Practice" (GACP) has been adopted in Ukraine, which is similar to the WHO GACP. On the example of saffron cultivation as a food and medicinal plant in Ukraine the expediency of application of GACP principles for the promotion of high-quality domestic production on the international market and herbal preparations is substantiated. Saffron cultivation