PARAMETERS OF STANDARDIZATION OF THE *SALVIA OFFICINALIS* LEAVES DRY EXTRACT

Tukas A. A., Myga M. M., Koshovyi O. M.
National University of Pharmacy, Kharkiv, Ukraine
Postbyalex@i.ua

Introduction: After the production of *Salvia* essential oil in Ukraine there are annually about 50 tons of waste of *Salvia* leaves and distillation liquid, while they still contain a lot of biologically active substances (BAS), in particular phenolic one. Earlier we studied chemical composition, antimicrobial and anti-inflammatory activity of the dry extract from *Salvia officinalis* leaves, having got by the complex processing after the essential oil production. Therefore, the next stage of our work was to carry out its standardization.

Aim. The aim of work was to define the parameters of standardization of the dry extract from the *Salvia officinalis* leaves, having got by the complex processing.

Previous chemical research of the extract was made by the methods of PC, TLC. The presence of such groups of BAS as monosugars, polysaccharidess, aminoacids, hydroxycinnamic acids, flavonoids and phenolic compounds was set.

Literary data shows that anti-inflammatory activity is exactly due to phenolic compounds, that why standardization of the extract we decided to conduct by their content. Standardization of the extract was conducted in obedience to requirements and methodologies of National Pharmacopeia of Ukraine. For authentication of basic BAS of the extract, we offered method of TLC. As indexes of the extract quality we certain loss in-bulk at drying (not more than 5%), content of heavy metals (0.01%) and microbiological cleanness of the extract (the presence of bacteria from *Enterobacteriaceae* family, *Pseudomonas aeruginosa*, *Staphylococcus aureus* have to be shut out). For the quantitative standardization we suggested to control content of flavonoids (more than 4%) and the amount of phenolic compounds (more than 20%). Quantitative content of phenolic compounds sum in recalculation on gallic acid was conducted by the method of direct spectrophotometry at the wave-length of 270 nm. Quantitative content of flavonoids in recalculation on on luteolin-7-O-glucoside was determined by the method of differential spectrophotometry after addition of reagent that contains 25.0 g/l boric acid R, 20.0 g/l sorrel acid R in ant acid waterless. The absorbency was measured in 30 minutes after preparation at 410 nm in relation to compensative solution. 5 series of the extract were analyzed. They fully answered the certain parameters of standardization.

Conclusions. The parameters of standardization of the *Salvia officinalis* dry extract were determined. In future after realization of validating measures it will be used for development of quality control methods.