

STUDY OF MEMBRANOSTABILIZING ACTIONS OF HERB OF BIDENS TRIPARTITE

Taran K. A., Shapoval O. N., Oproshanskaya T. V.
National University of Pharmacy, Kharkiv, Ukraine
olana666@mail.ru

Introduction. According to modern data search for new medicines in plant materials is actually because a herbal medicines have fewer side effects and equal synthetic drug activity. Most modern drugs are synthetic origin and may cause and positive pharmacological effects and side effects. Herb of bidens tripartite take up an important place in traditional medicine and scientific research confirmed properties about their use as alternative therapy. Evaluation of the chemical composition of this plant has revealed the presence of flavonoids, xanthophylls, volatile oil, acetylene and polyacetylene, sterols, aurones, chalcones, caffeine and tannins. Tannins of bidens tripartite, of which 66% are polyphenols, may contribute to membrane stabilizing properties. Therefore it was expedient to study the membranestabilizing action of powder from herbs and the stems and tincture of herb of bidens tripartite.

So, the **aim** of this work is studying of membranestabilizing action of powder from herbs of bidens tripartite (PHBT) in doses 50 mg/kg and 150 mg/kg, of powder from stems of bidens tripartite (PSBT) in doses 50 mg/kg and 150 mg/kg and of tincture of herb of bidens tripartite (THBT) in doses 0,1 ml/kg and 0,2 ml/kg after 2 week administration in laboratory animals. Known that damage cell membranes of tissues and organs causes a disturbance of their functions and development of the disease. So, was studied membrane stabilizing effect of PHBT, PSBT and THBT in method of erythrocyte hemolysis (Jager F. C.).

Results and discussion. It was found that PHBT in doses 50 mg/kg and 150 mg/kg have membrane stabilizing effect in 29% and 54% respectively which increases with grows of the dose values. Membrane stabilizing activity of PSBT in doses 50 mg/kg and 150 mg/kg is 22% and 28% respectively. Membrane stabilizing activity of THBT in doses 0.1 ml/kg and 0.2 ml/kg is 5% and 16% respectively. Analysis of these data showed that the most powerful and meaningful membrane stabilizing activity in 54% demonstrated the PHBT in a dose of 150 mg/kg. It shows that only the PHBT may be effective for the treatment of diseases pathogenesis of which is have damage to cell membranes (inflammatory diseases of the respiratory and GI tract, liver, kidney, hart, skin, metabolic disorders and others).

Conclusion. So, the powder of herbs of bidens tripartite is promising for further study in order to create a new effective and safe drugs for use in medical practice.