

HERBA OF SHEPHERD'S PURSE IS PERSPECTIVE RAW MATERIAL FOR THE CREATION OF NEW DRUGS

Shapoval M.V, Taran A.V., Shapoval O.N.

The National University of Pharmacy, Kharkiv, Ukraine

olana666@mail.ru

Nowadays 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 Shepherd's purse *Capsella Bursa-Pastoris* (Brassicaceae) is interesting for investigation. Moreover, this plant has traditionally been used as a diuretic and for the treatment of dysentery, furuncle, gonorrhea, menstrual disorders, and fever. In particular, plants belonging the Brassicaceae family contain high levels of sulforaphane (SF). SF is an isothiocyanate, and SF has received extensive attention for its potent chemopreventive activity. SF is not only effective in preventing chemically induced cancers in animal models, but also effective in inhibiting the growth of established tumors. In addition, a sulforaphane-containing solution (SCS) isolated from broccoli had an antioxidant effect. Furthermore, shepherd's purse contains vitamin A, ascorbic acid, linoleic acid, and omega-3 polyunsaturated fatty acids, which are beneficial for human health. To date, several classes of phenolic compounds have been isolated from shepherd's purse, such as flavonoids, alkaloids, calystegines, glucosinolates, and saponins.

So, the aim of this work is studying of pharmacological action of extract of the herb of Shepherd's purse (EHSP) 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 EHSP in doses 10 mg/kg, 50 mg/kg and 100 mg/kg kg in method of erythrocyte hemolysis (Jager F. C.).

It was found that EHSP in all doses have membrane stabilizing effect in 27-58%% which increases with grows of the dose values. Thus membrane stabilizing activity of EHSP in dose 10 mg / kg is 27%, in dose 50 mg / kg is 50% and in dose 100 mg / kg – 58 %. It shows that the EHSP may be effective for the treatment of diseases pathogenesis of which is have damage to cell membranes (inflammatory diseases of the respiratoty and GI tract, liver, kidney, hart, metabolic disorders and others).

So, the results show that EHSP is promising for further study in order to create a new effective and safe drugs for use in medical practice.