STUDY OF ANTICOAGULANT ACTIVITY OF LIQUID EXTRACT FROM THE LEAVES CORYLUS AVELLANA

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Introduction. Varicose veins of the lower extremities is the most common peripheral vascular disease. According to epidemiological studies in developed countries more than 20% of adults have a pronounced signs of this disease. Incorrect or untimely treatment can bring to complications such as deep vein thrombosis, thrombophlebitis, thromboembolism.

The main direction of pharmacotherapy thrombosis and prevention of thromboembolic complications is using the direct anticoagulants. A classic representative of direct anticoagulants is heparin. However, for the manifestation of heparin should be enough antithrombin - III, which dramatically decreases with disseminated intravascular blood clotting. In addition, the use of injectable heparin limited and short duration of effect. Therefore, search for new anticoagulant drugs is the actual problems of modern pharmacology, particularly among of plant materials.

In this regard as perspective materials for the study of anticoagulant properties was selected liquid extract from the leaves of Corylus avellana, which according to the literature, is used in folk medicine for varicose ulcers, capillary hemorrhage and contains in its structure, tannins, alkaloids, flavonoids (myrytsetyn, kvertsitin, kaempferol, afzelin), minerals (iron, potassium, magnesium, iodine), amino acids, organic acids, carotenoids, vitamins (nicotinic and ascorbic acid, tocopherol, riboflavin, thiamin), polysaccharides, fatty acids.

The purpose of the research. To study anticoagulant activity of liquid extract from the leaves of Corylus avellana.

Materials and methods. Initially, the research of anticoagulant activity conducted in vitro experiments by the method Sukharev. The principle of the method is to determine the time when the first spontaneous fibrin strands appeared in whole blood for this we took 2-3 drops of blood from the tail of white non-linear rats and placed in the hour glass, which warmed the palm to body temperature. The initial liquid extract at a concentration of 136 mg/ml and in dilutions of 1:2, 1:4, 1:8 was added to hour glass. Every thirty seconds carried by the blood lancet until the needle is not pulled by the first thread of fibrin. Clotting time compared with the control.

Results. The study was determined pronounced anticoagulant activity of the initial liquid extract from the leaves of Corylus avellana, as evidenced no coagulation after 16 minutes of the beginning of experiment. Extract in a dilution of 1:2 also showed anticoagulant activity, as evidenced by time dilation of blood clotting 1.6 times in comparison with the control.

Conclusions. According to the results of research it was found that a liquid extract from the leaves of Corylus avellana showed anticoagulant activity that is cause for further research anticoagulant properties in experiments in vivo.