

## **Studying anticoagulant property of the GLAS of in vitro in system of a hemostasis**

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### **Introduction**

The liquid state of blood is supported thanks to its movement (at the expense of what concentration of reagents decreases), adsorption of factors of folding endothelium and, at last, thanks to natural physiological anticoagulants. Anticoagulants are the preparations diluting blood forcing blood of an animal to lose ability to folding, destroy capillaries therefore there is an internal haemorrhage.

### **Aim**

Search anticoagulant property new preparations and action on system of a hemostasis used the GLAS preparation.

### **Materials and methods**

Experiments were made on 20 not purebred white rats males the weight (200-250 g) containing on a standard diet of a vivarium. Platelets allocated with a centrifugation method at 1500 rpm, within 15 min, for sedimentation of erythrocytes. The plasma enriched with platelets was centrifuged repeatedly within 10 min. at 3 thousand rpm. Aggregation of platelets was registered on Born's method. As inductors of aggregation of platelets used ADF (2 micr), adrenaline (5 microns) and thrombin (0,5 p/ml).

### **Results**

GLAS in concentration of 60 microns didn't cause folding of plasma and aggregation of platelets. But at research of influence of the GLAS on thrombin and thrombin effects of poisons of snakes (*Vipera lebetina*, *Echis multisquamatus* and *Akqistrodon halys*) it is revealed that the GLAS more dose dependent reduces influence of thrombin and these poisons (0,01g/ml) on process of a thrombosis and formation of a fibrinous clot in the plasma rich with platelets. If to consider that the important property the thrombin of enzymes of poisons of snakes distinguishing them from thrombin is their ability to hydrolyze not only fibrinogen, but also other proteins of system of a hemostasis. Research of the GLAS on APTT it is revealed that the GLAS in concentration (5-50  $\mu$ /ml) dose dependent extended thrombosis time for 50-80 sec., concerning control, leading to weakening of formation of a fibrinous clot that can testify to inhibition of activity of one of factors of XII, XI, IX, VIII. GLAS have noticeable impact on system of a hemostasis, extending time of coagulability of plasma in tests of a recalcification time, APTT and with the tekhplastiny. Results testify that GLAS possessing anticoagulant action, have impact on Ca<sup>2+</sup>-dependent factors both on external, and on internal to a way of a fibrillation.

### **Conclusions**

Antithrombogenic action of the GLAS is shown more in plasma rich with platelets, perhaps, its action is connected with secretion inhibition from platelets of activators of a fibrillation (a tromboksan of A<sub>2</sub>, ions of Ca<sup>2+</sup>, the factor of activation of platelets (FAP), fibrinogen and many others).