

**THE EFFECT OF MKC COMPOSITION ON COAGULATION HEMOSTASIS
PARAMETERS IN EXPERIMENTAL PULMONARY THROMBOSIS**

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A hypercoagulable state is accompanied by changes in coagulogram parameters, increased fibrinogen concentration, and impaired fibrin clot formation. The search for new drugs capable of effectively normalizing plasma hemostasis parameters remains a priority area of research.

To evaluate the effect of the MKC formulation on coagulation hemostasis parameters. The study was conducted on 25 white outbred mice, weighing 25 ± 2 g, with 5 animals per group. To induce a model of pulmonary thrombosis, animals in the control and experimental groups were injected with a mixture of collagen (0.5 mg/kg) and adrenaline (0.06 mg/kg) solutions, into the caudal vein. MKC was administered orally as a single dose 2 hours prior to the administration of the thrombotic agent at doses of 0.5 and 1.0 mg/kg, whilst Evalar Dihydroquercetin was administered at a dose of 100 mg/kg. Twenty-four hours after the administration of the thrombotic agents, the following coagulation parameters were assessed: prothrombin time (PT), activated partial thromboplastin time (APTT), plasma recalcification (VRP), thrombin time (TT), and fibrinogen (F).

The development of the experimental model was accompanied by marked disturbances in the haemostatic system, manifested by a 45 per cent increase in F levels and a 204.8 per cent prolongation of TV, whilst the VRP decreased by 27.5 per cent. APTT increased by 10.4 per cent, whilst PV changed only slightly. These changes indicate the development of marked hypercoagulation. Following administration of the MKC formulation at a dose of 0.5 mg/kg, the concentration of F decreased by 29.6 per cent. APTT increased by 11.9 per cent compared with the model group and was virtually identical to the physiological norm. PT decreased by 17.8% compared with the values in the control group. When MKC was administered at a dose of 1.0 mg/kg, the F level decreased by 25.4%. aPTT increased by 51.9%. TV decreased by 17.0% compared with the control group, and VRP decreased by 11.4% compared with the control group. PV corresponded to normal physiological values, indicating a partial normalisation of coagulation haemostasis parameters and a reduction in the intensity of intravascular thrombus formation. Dihydroquercetin reduced the F content by 46.3% compared with the control group. The most pronounced improvement was observed in TV, which decreased by 70.0% compared with the model group and was virtually at physiological levels. APTT decreased by 13.0%, and VRP was virtually indistinguishable from that of the model group.

Thus, MKC demonstrated the ability to correct disturbances in plasma hemostasis during experimental pulmonary thrombosis. The most balanced effect was observed at a dose of 0.5 mg/kg, supporting further investigation of MKC as a potential antithrombotic and angioprotective agent.