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## **BIOCHEMICAL CHANGES IN BLOOD UNDER Cr<sup>6+</sup>**

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**ABSTRACT. Background.** For the manufacture of dentures many different alloys containing chromium are used. Interaction with oral fluid, organic acids and food, results in formation of Cr<sup>3+</sup>, Cr<sup>6+</sup> ions, but their influence on the whole organism is poorly investigated. **Objective.** To analyze the biochemical changes in blood plasma during the influence of Cr<sup>6+</sup> ions. **Methods.** 15 animals of experimental group were receiving drinking water with potassium dichromate in a dose of 0,2 mol/l. Rats of control group (5 individuals) drank usual drinking water. Animals were led out of experiment on the 20<sup>th</sup>, 40<sup>th</sup> and 60<sup>th</sup> days after the beginning of introduction of potassium dichromate. **Results.** It was established that at the beginning of experiment the blood biochemical indicators of control and the 1<sup>st</sup> experimental groups differed by its content. Increase of urea concentration led to suspicion about violation of a glomerular filtration, damage of a kidney parenchyma and tissue disintegration. On the 20<sup>th</sup> and 40<sup>th</sup> days of experiment the symptoms of acidosis and increase of potassium ions concentration in blood plasma were defined. Continuous and dynamic increase of creatin-phosphokinase was observed during 60 days of experiment. **Conclusion.** Biochemical changes in blood under the influence of Cr<sup>6+</sup> ions evidence their toxic action on an organism. Especial concern is caused by changes of ionic composition and increase of the atherogenic index of blood plasma on the 40<sup>th</sup> day of experiment. Substantial increase of the creatin-phosphokinase level indicates general somatic influence of chromium ions.

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