Capillarization of Pamir yuccas myocardium
(POEPHAGUS GRUNNIENS)

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Measuring linear dimensions of yaks heart was found that its length is 16,20 ± 0,36 cm transverse size (at the base atrial) - 13,00 ± 0,17 cm anteroposterior size (at the location of the mitral and 3-flapper valves) - 13,40 ± 0,25 cm. Among the data the most important is the Kernogans index (wall thickness / V lumen diameter), reflecting the degree of resistance of the walls of arterial and venous blood vessels, depending on the intravascular pressure.

Analysis of the results for individual weighing the heart on absolute and estimate indicates, shows that for the right side of the yaks heart fits 28% of the total mass of the organ, and on the left - 58%.

Hystometric studying the indicators of capillarization and the muscle fibers of different parts of the heart yak indicates that, depending on the topography and function of heart morphometric characteristics have a number of features.

Was performed the analysis on a new intensive indicator - the ratio of capillaries to the volume of muscle fibers in a unit volume of the myocardium tissue. This indicator, which, in our opinion, the most adequately characterizes the degree of myocardial capillarization revealed significant differences (P <0.05), indicating of a higher capillarization degree of the right ventricular compared with left ventricular of the adult yak.

The results of studying allowed to show a higher degree of vascularization of the myocardium of right ventricle the yaks heart that due to the effects of this type of habitat conditions, constantly located at altitudes of 3,000 to 5,000 meters above sea level. This fact, considered as an inherited factor is studuing extensively by geneticists, who believes that their findings may have important implications for the understanding of adaptation to the height of the other species of animals and hypoxia diseases in humans. The present study is further confirmation of this line of research.