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## **STRUCTURAL FEATURES OF BLOOD VESSELS IN PANCREATIC ISLETS AT 24 MONTHS AGE RATS AND IT'S ALTERATION BY 42 AND 56 DAY COURSE OF EXPERIMENTAL DIABETES**

The aim of the study was to determine the features of blood supply insular apparatus of the pancreas of rats at 24 months age, and it's alteration after 42 and 56 days of experimental diabetes.

Work carried out on 30 white rats – males Wistar line weighing 340–420g. 24 months age rats that were kept under standard vivarium conditions with all the accepted rules. For the experiment, the animals were divided into two groups: the first – intact (10 animals), the second – experimental (20 animals), which simulated experimental diabetes research with the structure and links blood vessels in 42 and 56 days of experiment, of which 6 animals served as control.

Arterioles originating from the artery and placed in layers of connective tissue around the islets. Branching form precapillars that form open and closed loop surrounding the island and give rise to capillaries that lie between endocrinocytes, anastomozuyut each other and form a capillary net. The capillaries merge form postcapillars emanating from between endocrinocytes and united to form venules.

In 42 day course of experimental diabetes the decrease arterial lumen, precapillars, capillaries and postcapillars.

Clearance venules increases the maximum for the entire period of observation.

Ultramicroscopic detected thickening of endothelial micro-vessels, increasing the electron-optical density of the cytoplasm, which contains a large number vesicles and vesicles tsytoloma lyumenal surface creates numerous finger shape protrusion.

In 56 day experiment further reduced arteriolar lumen. Clearance precapillars, capillaries and postcapillars slightly different from that of the previous period, and the lumen of venules significantly reduced.

Arterioles and venules preinsular areas remain the main structural components of the wall. However, the thickness of the shell increases, defined areas of endothelial desquamation and destructive changes in arteriolar myocytes. Capillary walls thickened by increasing the thickness of the endothelial and basement membrane. Some endothelial cells are destroyed, and their cytoplasm found in the lumen of the capillaries.

Thus, changes in the endocrine part of the pancreas in 24 months age rats to 56 day course of experimental diabetes characterized by spasm of the arterial blood vessels, and venous dilatation it's component.