THE INFLUENCE OF ENDOGENOUS PROTEIN COMPLEX ON THE QUANTITY OF KI-67 POSITIVE CELLS IN GROWING RATS PANCREAS

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Cell-cell interactions are crucial for regulation of the development process of the organism. These processes are controlled by signaling molecules. There are many known regulatory factors, which are isolated and partially characterized from almost all tissues. One of the endogenous thermostable protein complexe (TPC) is identified in pancreatic tissue. It is established that TPC decrease mitotic activity and have no species specificity. At the same time the number of cells within the cell cycle (ki-67 positive cells) is increased.

Goal: The influence of adult rat pancreas thermostable protein complex (TPC) on the quantity of ki-67 positive cells of growing rat pancreas in dynamics.

Investigation was carried out on growing (7 days) rats. For estimation of proliferative activity immunohistochemical staining (anty-ki-67) was used.

It has been shown that the duration of TPC effect is about three hours in-vivo system of adult rat. The inhibitory effect of pancreas TCP on cell proliferation is of reversible. The cells maintain their ability to divide and are capable of returning into mitotic phase. In response of homotipic cells proliferation suppression by pancreatic TPC the number of cells entering in cell cycle is increased. Thus, the inhibition of homotipyc cell proliferation by Pancreatic TPC stimulates the increasing of proliferative activity of pancreas.