

## EXPERIMENTAL STUDY OF ANTIHYPOXIC ACTIVITY OF RONKOLEUKIN

<sup>1</sup> But N.A., <sup>2</sup> Suprun E.V., <sup>2</sup> Suprun A.S.

<sup>1</sup> UE «Dnepropetrovsk' city hospital № 4»;

<sup>2</sup> Institute for Advanced Studies Professional Pharmacy of the  
National University of Pharmacy, Kharkiv

Purpose of study was determination of recombinant IL-2 (Ronkoleukin) influence on dynamics of afterhypoxic changes in tissues of rats' brain with experimental focal stroke, mainly functional activity of mitochondria and thiol-disulfide system. Antihypoxic activity of Ronkoleukin (0,01 mg/kg) comparing to Tiotriazoline (50 mg/kg) was studied on the model of experimental photoinduced thrombosis of brain in rats. In homogenate of brain in rats with experimental focal stroke in early and distant afterischemic periods after initiation with cyclosporine-A by spectrophotometry was determined opening of mitochondrial pore and activity of thiol-disulfide system (levels of reduced forms of glutathione and thiols, activity of glutathioneperoxidase and glutathionereductase).

On a background of administration of Ronkoleukin was noted significant stabilization of mitochondria functional activity (by blocking mitochondrial pore opening) and state of thiol-disulfide system – normalization of activity of glutathioneperoxidase and glutathionereductase, increase of levels of reduced forms of glutathione and thiols on the background of reduction of their oxidized forms. By mitochondrial activity on the model of focal stroke Ronkoleukin can be compared to Tiotriazoline and on some indexes even better.

Ronkoleukin has solid antihypoxic effect in afterischemic damages that can be used as perspective therapy in complex therapy in afterischemic stroke and for effective protection of brain tissue.