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Liposan-A drug for the treatment of hemorrhagic shock

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Massive blood loss accompanied by hemorrhagic shock is the leading cause of the high (15-30%) mortality of victims. There is currently no significant trend towards its decline. This is because the resuscitation measures currently available are mainly aimed at protecting the normal cells that remain undamaged by the shock effect. Moreover, the onset of resuscitation is accompanied by an increase in cellular damage. The damaged cells eventually become necrotic, resulting in the patient either dying or remaining disabled. The problem of restoring the functions of damaged cells still remains unresolved due to the lack of effective methods for correcting the cellular membrane structures.

Liposan ("empty" phosphatidylcholine liposomes) is a drug whose action is aimed at restoring the structure and functions of damaged cells both in the early and late stages of hemorrhagic shock. The drug is an effective agent that acts at the subcellular, organ and systemic levels.

Liposan restores the structures of the liver, brain, lung and spleen to a considerable extent. When administered during late-stage experimental hemorrhagic shock, Liposan induces an increase in systemic arterial blood pressure within 20-30 minutes on average

to 70 mm Hg. This is followed by a stabilization of arterial blood pressure at the subnormal level during 4 hours of observation. Animals under such conditions have their life expectancy increased by an average of 7 hours.

The advantage of liposan is its high efficiency in treating late-stage hemorrhagic shock in cases where conventional treatment methods, including transfusion and infusion therapy, often prove ineffective. The dispensing of liposan at the local clinic will greatly help reduce mortality and disability resulting from massive blood loss and hemorrhagic shock due to its pronounced membrane-restorative action.

Biography

Galina Feodorovna Leskova completed his PhD in Pathophysiology by Institute of General Pathology. She has worked as leading researcher in laboratory of nanopathology and biomedical nanotechnologies of Institute of General Pathology und Pathophysiology. She has published more than 52 papers in reputed journals.

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