The treatment of Alzheimer's Disease by Lipochrom

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Introduction

That is our method the treatment of Alzheimer's diseas by liposomal drug Lipochrome. Why did we decide to do this and what is the problem with other drugs for this treatment? In fact, because mostly medical drugs can't get directly to the brain. They can't cross the blood-brain barrier. Only small nanoparticles can cross the blood-brain-barrier and "drag" their contents inside at the cellular level. It was indicated by many authors all over the world [1]. Therefore we made a new technology of the liposomal drug which can bring new original drug for the treatment of Alzheimer's disease directly to brain.

Method

We used negatively charged liposomes with an original lipid structure, developed by the Ukrainian doctor Nina Ivanova. We dicided that negatively charged liposomes are more effective at overcoming the blood-brain barrier than neutral or positively charged liposomes. For the treatment of the experimental animals, we used the complex of liposomes containing the original drug, mainly used in cardiology. Studies of the biological activity of this complex (Lipochrome) for the treatment of Alzheimer's disease were conducted in vivo on experimental animals. We used animal models with Alzheimer's-induced by Chlamydia pneumoniae. The animals were observed in for three months (we have a certificate from the Committee on Bioethics and Deontology).

Results

We had a really perfect result. The therapeutic effect was achieved: 98% of the animals with induced Alzheimer's disease were healthy after two injections of our drug. Lipochrome prevented the aggregation of beta-amyloid in amyloid plaques in vivo. The animals after treatment with Lipochrome did not have beta-amyloid plaques (Photo 1). At the same time in the control group 1 of animals with induced Alzheimer's disease without treatment, pronounced the ccumulations of beta-amyloid plaques with signs of death of border neurocytes in the wall and tissue of cerebral arteries (Photo 2). In the control group 2 of animals with induced Alzheimer's disease after treatment only liposome-free medicine pronounced the ccumulations of beta-amyloid plaques with signs of death of neurocytes (Photo 3). The liposome-free medicine could not cross the blood-brain barrier (Photo 3).

Photo 1

Photo 2

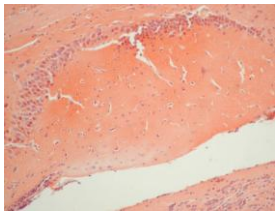
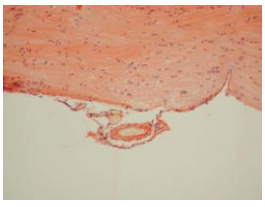


Photo 3



Conclusions

This development (the composition and the technology) of the preparation for treatment Alzheimer's Disease is the intellectual property of the authors and is protected by a patent. The authors are waiting for any proposition of cooperation.

References

1. Vieira DB, Gamarra LF. Getting into the brain: liposome-based strategies for effective drug delivery across the blood–brain barrier// International Journal of Nanomedicine.- 2016. N 11.-**P**. 5381-5414.