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Poster Presentation

Use of Zinc in Drugs to Improve Neuroinflammation Disease

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Abstract

Zinc is a substance that regulates neural excitability by binding whit sodium channel and potassium channel. The efficiency of free zinc ion, make down the neural survival rate, reduced the peak amplitude of Na+ and make depolarization Na channel, increased the peak amplitude of transition outward k+ currents and delayed rectifier. Also it is an effective blocker of one subtype of tetrodoxine (TT-X) insensitive sodium channel than other sodium channel. Absolutely zinc effects on other proteins membrane and the suitable level of free zinc ion help to membranes function. In neuroinflammation zone, the membrane get into new environment and the protein channel hardly make impulse. In some neuroinflammation disease that neuron's problem is inability to make impulse, the efficiency of free zinc ion makes that and increase level of zinc ion, help neuron makes impulse. For example in Alzheimer, if the levels of zinc get increased, neuron make impulse and the process of disease get slowly. But neuroinflammation disease that neuron make excessive impulse and this is main problem, like Multiple Sclerosis, efficiency of free zinc ion help to decrease membrane activities. In neuroinflammation disease, when the protein membrane get into damage, use of zinc in drug in other to improve the efficiency of free zinc ion, can help to protein channel and membrane function. In the other site, increase the level of free zinc ion make excessive impulse. So free zinc ion in matrix is really important for action protein membrane and in neuroinflammation environment, changing the level make different result. If in a disease neuron action get down, zinc in drug can help to make impulse by binding whit protein channel.

Keywords: Neuroinflammation, Zinc, Protein channel

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