Mechanisms contributing to antidepressant zinc actions.

Nowak G, Szewczyk B.

Department of Neurobiology, Institute of Pharmacology, Polish Academy of Sciences, Smetna 12, PL 3 1-343 Kraków, Poland.

BACKGROUND: Zinc is a trace element, which is an important modulator of mammalian nervous and immune systems. Its deficiency is related to human depression.

RESULTS: Our recent data indicate involvement of zinc in the mechanism of antidepressant treatment. Moreover, zinc exhibits antidepressant-like effects in animal models of depression in rodents.

CONCLUSION: Since zinc also enhances antidepressant effect in laboratory animals, its potential therapeutic value in human depression is under evaluation. This article reviews the alterations in central and peripheral zinc homeostasis in relation to pathophysiology and treatment of depression.

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