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Poster Presentation Review

A Review on the Effectiveness of Antioxidants on the Anxiety

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Abstract

Oxidative stress (OS), which has been implicated in pathogenesis of many acute and chronic diseases, plays an important role in diverse neurological disorders including depression and anxiety. OS is caused by a large amount of reactive oxygen species or impaired enzymatic or non-enzymatic defense against it. OS has been suggested to contribute to etiology of mentioned disorders. This review intends to investigate some existing evidence for the role of OS in these neuropsychiatric diseases. Anxiety is a normal human emotion to a perceived threat and stressful situations. But when in some cases becomes excessive and out of control, panic and anxiety symptoms shifts into panic and anxiety attacks. This situation may be an anxiety disorder. It characterized by feelings of panic, fear, uneasiness, tension, worried thoughts and physical changes like sweating, increased blood pressure, dizziness or a rapid heartbeat. There is an increasing number of scientific publications reporting contribution of anxiety level and oxidative status in both neuronal and glial cells. Recent evidence is reviewed indicating involvement of OS in anxiety-like behavior in animal models. In addition pharmacological induction of OS causes anxiety-like behavior in rats. Neuroprotective antioxidant activity of some drugs against anxiety has also observed. These observations strongly suggest positive relationship between peripheral oxidative status and the level of anxiety not only in animal models but also in the human. It thus plays a critical role in neurodegeneration, neuroinflammation and following neurological-related disorders.

Keywords: Anxiety, Oxidative stress, Neurological disorders, Antioxidant.

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