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Poster Presentation Research

Anxiolytics Effect of α-Galycoceramide: As Novel Inhibitor of Glucocorticoid in Social Isolated Rats

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Abstract

α-Galycoceramide (α-Galcer) or the common name of krn7000 is an α-gelasphin derivative. The α-Galcer structure consists of a galactose combined with a ceramide in an α-configuration. Social isolation (SI) has been linked with enhanced inflammation, through modifications in transcriptional pathways linked with glucocorticoid, to stress. Our hypothesis is to investigate mediatory role of glucocorticoid and augmentation of anxiety in social isolation. The agent was injected intraperitoneally in rats and we performed elevated plus-maze. The administration of α-Galcer decreased freezing and increased the number of entries into the open spaces and the time spent on the open arms in the plus-maze, indicating an anxiolytics effect. Our results indicate that α-Galcer induces anti-anxiogenesis in rats. Moreover, we show for the first time that α-Galcer reduced anxiety parameters, suggesting that the derivative may influence processes in pathway of glucocorticoid.

Keywords: Anxiety, α-Galycoceramide, Glucocorticoid, Social Isolation.

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