

Natureza do trabalho: Resumo

TÍTULO

ENDOCANNABINOID SYSTEM AND FEAR CONDITIONING

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RESUMO

Introduction: Fear is one of the most enlightened feelings in terms of brain mechanisms. The quest for understanding the mechanisms of learning associated with fear conditioning has been increasing in recent years whereas they should be involved with anxiety disorders etiology in humans. Based on the cannabinoids actions in these disorders, several therapies have been proposed with synthetic antagonists. This article quests to understand cannabinoids role in fear conditioning. **Literature review:** The fear is a response to threatening stimuli, mediated by neural systems that return to baseline activity in the absence of the same. Anxiety disorders are characterized by excessive fear or in the absence of stimuli. Neurobiological studies dating from the nineteenth century, since then several models have been proposed, but the Pavlovian showed greater adaptation. Association between neutral stimuli and harmful, in which short term memory consolidate in long term memory. The endocannabinoid system seems to have an important role in learning and memory, retrograde messengers that act on excitatory or inhibitory synapses, acting in synaptic plasticity and its dysregulation is associated to tranornos of humor. The cannabinoid receptors CB1 and CB2 are of the G-protein coupled, where CB1 shows high expression in brain areas such as the amygdala, hippocampus and prefrontal cortex, increasing its role in the regulation of mood and anxiety. The CB1 receptor influences the glutamatergic and GABAergic regulation in anxiety, where through retrograde mechanism decreases the release of these neurotransmitters. **Conclusion:** Elevated expression of CB1 areas of the regulation of mood and anxiety may contribute to the activation anxiolytic or anxiogenic, depending on the saturation of this receptors in each brain region.