

Natureza do trabalho: Resumo

TÍTULO

EPIGENETIC AND ADDICTION

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RESUMO

Introduction: Social, psychological and economic factors are involved in the individual's exposure to drugs. Moreover, individual variations in susceptibility to environmental effects, such as polymorphisms and epigenetic mechanisms reinforce the idea that the gene is a possibility, not a destination. **Literature review:** The vulnerability of an addicted individual is due to long-lasting changes in brain function linked to neural mechanisms of neuroplasticity. Since the 1970s, it was realized that the acute administration of drugs of abuse promotes behavior reinforcement and development of addiction to understand the behavior of an addict, neurobiology focused on three brain regions: the amygdala, the prefrontal cortex and the nucleus accumbens. The amygdala involved in behavior motivated by fear and the establishment of associations⁵. The nucleus accumbens connected to a reward circuit. And the prefrontal cortex regulates the motivational relevance and intensity of the behavioral response. Glutamatergic and dopaminergic interconnections between these regions converge to the final behavior. In this context, polymorphisms step in generating phenotypic changes. Epigenetic also causes these changes and refers to modifying DNA without any changes in the sequence of the genetic material¹². Epigenetic mechanisms act regulating gene transcription and lasting changes in gene expression are performed when such modifications affect transcription factors, thereby altering the biological program inherited¹³. **Conclusion:** Based on what was said, the repeated use of drugs "addictive" induces a reorganization of neurological circuit, establishing the characteristic behaviors of addiction. The plasticity in excitatory transmission generates a condition marked by relapses and uncontrollable desire for the drug. We can consider a hypermetabolic in response to stimuli related to the drug which may be triggered, then the binge eating. And so pharmacotherapy linked to this broadcast and this metabolism that would target the changes caused by addiction.