

Mini Review

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Attention Deficits in Alcohol and Drug Use

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Minireview

Attention deficits amount in alcohol use, depends on the alcohol concentration levels in the blood. Higher concentration levels (0.09% g/ml) are related to higher amounts of attention deficits in comparison with moderate (0.04% g/ml) concentration levels [1-4].

Increasing in the doses of alcohol is related to the decrease in fMRI BOLD signals in some parts of the brain including Inferior frontal gyrus, Dorsolateral prefrontal cortex and Anterior cingulate cortex.

Acute marijuana administration causes disruption in the visual special attention. Tetrahydrocannabinol (THC) consuming in the marijuana users, results in higher-order executive control tasks impairment according to the Cambridge risk task and Wisconsin card sorting task results. Also, this causes increasing in the Anterior cingulate cortex and right Dorsolateral prefrontal cortex glucose metabolism [5-8].

Visual attention will be enhanced by nicotine use in comparison with marijuana or alcohol use. Also, Dorsolateral prefrontal cortex activations will be increased by nicotine consumption.

Individual differences in gender and abstinence, would modulate the impact of nicotine on the Prefrontal cortex. Studies with using auditory 1-back continuous performance task, have demonstrated this fact.

Since alcohol and drug using would cause various alterations in attention abilities, having knowledge about the related mechanisms involved in such alterations is of importance to deal with the relevant patient's group much more better during clinical practice [9-12].

Acknowledgement

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Conflict of Interest

No conflict of Interest.

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