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Poster Presentation

Effect of *Paeonia Lactiflora* Root Extract on Epilepsy

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Abstract

Epilepsy is a complex neurological disorder that affects around 1% of the world's population. It affects the neural cells of the CA1 and CA3 regions of the brain's hippocampus that causes behavioral disorders. The use of medicinal herbs for the treatment of epilepsy has long been common, but these effectors have been less successful. According to glutamate theory, the cause of epilepsy is the accumulation of glutamate produced from GABA metabolism in the extracellular domain and consequently the inability of the GLT-1 protein in the transfer of glutamate and as a result of impaired function of the nerve. During epileptic seizures, the amount of glutamate in the cell increases. The experiments show that the albiflorin in this extract can be enhanced by inhibiting serotonin and norepinephrine absorption. Purpose of this study is checking the effect of the root extract of *Paeonia lactiflora* on epilepsy. Albiflorin and pentagalloylglucose can increase the flow of calcium from the gap junction of astrocytes, producing some ATP to the extracellular space, and the activity of the neurons at the same time increases the attack. Long-term exposure to Paeoniflorin can also prevent cell proliferation by increasing the expression of the A20 gene. As a result, the plant can be effective in preventing or reducing the severity of attacks.

Keywords: Epilepsy, Albiflorin, Glutamate, *Paeonia Lactiflora*

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