Anticonvulsant Activity of the Leaves of Glycyrrhiza-Glabra Var. Glandulifera and Antioxidant Effect of Achillea Wilhelmsii in Epilepsy Treatment

Pouya Ghaderi*, Mokhtar Ahmadi, Zahra Parsaye Ziarat

Islamic Azad University, Mashhad Branch, Mashhad, Iran

Abstract

Oxidative stress has been suggested as a consequence and as a cause of epileptic seizures. Researches indicate Achillea wilhelmsii (A. wilhelmsii) has anti-oxidant and anti-spasmic effects on central nervous system. This plant grows in most part of Iran. An Iranian research that done in 2013 showed that the hydroalcoholic extract of Achillea wilhelmsii possesses an antioxidant effect in the brain in pentylenetetrazole induced seizure model. Also later researches in Iran on Wistar rats and mouses showed its anti-oxidant effect. Publications of traditional medicine show that Glycyrrhiza glabra L., Fabaceae, has anti-epileptic effects. This plants grows in Europe and Middle-East such as Iran, Germany Greece, France and Turkey. Many articles show its positive role in gastritis, peptic ulcers and hepatitis treatment but there are few researches about its anti-epileptic effects. A research done in Iran in 2011 showed that leaves of G. glabra have anticonvulsant activity. It indicated that anticonvulsant activity of G. glabra could be mainly attributed to the compounds of sterols/ triterpenes class present in the leaves of this plant. It is suggested to use mixture of G. glabra and A. wilhelmsii as a herbal medicine in treatment and prevention of epilepsy because of their anti-oxidant Anticonvulsant activity and their less side effects rather than anti-epileptic drugs.

Keyword: Achillea wilhelmsii, Epilepsy, Glycyrrhiza glabra var. glandulifera

*Corresponding Author: Pouya Ghaderi

E-mail: pouyaghaderi73@gmail.com