

## ANTICONVULSANT ACTIVITY AND RELATED NEUROTROPIC EFFECTS OF DRY EXTRACTS FROM SOME REPRESENTATIVES OF FUMARIACEAE, LAMIACEAE, SOLANACEAE AND POLEMONIACEAE FAMILIES

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Epilepsy is a disorder of the brain characterized by an enduring predisposition to generate epileptic seizures and by the neurobiologic, cognitive, psychological, and social consequences. Despite the availability of a wide range of antiepileptic medicines a problem of the search for new drugs with anticonvulsant properties among the herbal medicinal products remains acute. It is well known that a high level of safety is inherent in herbal remedies, even in long-term use. In addition, herbal medicines usually have a complex influence on the disease pathogenesis.

The purpose of the research was the evaluation of anticonvulsant activity and related neurotropic properties of such herbal substances as aqueous and 50 % ethanolic dry extracts of *Leonurus cardiaca* L., aqueous and 50 % ethanolic dry extracts of *Origanum vulgare* L., aqueous dry extracts of *Ocimum basilicum* L., *Hyssopus officinalis* L., *Stachys annua* L., *Salvia officinalis* L., *Thymus serpyllum* L., *Fumaria officinalis* L., *Fumaria schleicheri* Soy.-Willem., *Hyoscyamus niger* L., *Datura stramonium* L., *Polemonium caeruleum* L. Aqueous and 50 % ethanolic dry extracts of *Leonurus cardiaca* L., aqueous dry extract of *Ocimum basilicum* L. and aqueous dry extract of *Fumaria schleicheri* Soy.-Willem. in the dose of 100 mg/kg showed an expressed anticonvulsant activity on the models of seizures with different pathogenesis in mice (namely corazole-induced, tiosemicarbaside-induced and strychnine-induced seizures). These substances have been selected for further research in the combined open field test, a rotating rod test, an elevated plus maze, a conditional reaction of passive avoidance test, Porsolt behavioural despair test (tail suspension test in mice) and on the model of traumatic brain injury in rats.

According to the results of the aforesaid tests it has been established that aqueous and 50 % ethanolic dry extracts of *Leonurus cardiaca* render potent anxiolytic properties. Aqueous dry extract of *Fumaria schleicheri* also shows anxiolytic properties without negative influence on muscle tone, coordination of movements, cognitive processes and memory. Aqueous dry extract of *Ocimum basilicum* also renders significant cerebroprotective effect on the model of traumatic brain injury.