Abstract:
Successful management of epilepsy still remains a vital problem. Despite using various combinations of antiepileptic drugs (AEDs), 20–25% of epileptic patients are insensitive to currently available medication. Therefore, there is a considerable need for finding a more effective AED or synergistic combinations of AEDs. Experimental and clinical data indicate that excitatory amino acid (EAA) receptor antagonists possess anticonvulsant potential. Moreover, EAA antagonists can potentiate the protective action of conventional AEDs. Unfortunately, not all beneficial (in terms of anticonvulsant activity) combinations may be recommended since some of them produce significant adverse effects which restrict their clinical use. The aim of this review was to assemble current literature data on interactions of EAA receptor antagonists with conventional AEDs. Generally, N-methyl-D-aspartate (NMDA) receptor antagonists combined with AEDs produce significant adverse effects. Non-NMDA receptor antagonists represent a more promising group.

Key words:
antiepileptic drugs, epilepsy, excitatory amino acid receptor antagonists, seizures