**Abstract:** Epilepsy is a serious neurological disorder characterized by recurrent, spontaneous seizures. Up to one third of patients with epilepsy will have seizures refractory to all available pharmacologic treatments. In addition, 20-30% of epilepsy patients do not tolerate antiepileptic therapy because of the presence of intolerable neuropsychiatric adverse effects. Noncompliance is a major factor in suboptimal control of epileptic seizures and is a serious hindrance to successful treatment of patients with epilepsy since it negates the usefulness of the advances made in the diagnosis and treatment of epilepsy and is perhaps the single most important factor in increasing the costs of care for people with epilepsy. Levetiracetam extended release formulations with their favorable pharmacokinetic properties, overall safety and tolerability, and convenient once-daily dosing are expected to be an ideal add-on therapy for the treatment of partial-onset seizures and are a valuable addition to the existing treatment options for the patients with epilepsy, including the available levetiracetam immediate release formulations. The present study whose primary objective was to prove the bioequivalence of a single oral dose of levetiracetam 1000 mg extended release tablet compared to two oral doses of levetiracetam 500 mg tablets represents a small step towards improving patient compliance in epilepsy patients.

**Keywords:** epilepsy, seizures, noncompliance, patient compliance, bioequivalence, pharmacokinetics, levetiracetam, extended release formulations, immediate release formulations.