

LESTAM 250mg, 500mg Tablet

(Levetiracetam)

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(ليويتيراسيتام) ٥٠٠.٢٥٠ ملل جرام كوليائ

DESCRIPTION:

Levetiracetam is a novel antiepileptic drug used to treat partial, myoclonic, and tonic-clonic seizures. In 2000, the FDA approved the use of the oral formulation as adjunctive therapy for the treatment of focal seizures, myoclonic seizures, and primary generalized seizures.

The empirical formula is $C_8H_{14}N_2O_2$. Molecular Weight 170.21g/mol

COMPOSITION:

Each Film Coated Tablet contains:

Levetiracetam -----250mg

Each Film Coated Tablet contains:

Levetiracetam -----500mg

CLINICAL PHARMACOLOGY:

Mechanism Of Action:

The precise mechanism(s) by which levetiracetam exerts its antiepileptic effect is unknown. The antiepileptic activity of levetiracetam was assessed in a number of animal models of epileptic seizures. Levetiracetam did not inhibit single seizures induced by maximal stimulation with electrical current or different chemoconvulsants and showed only minimal activity in sub maximal stimulation and in threshold tests. Protection was observed, however, against secondarily generalized activity from focal seizures induced by pilocarpine and kainic acid, two chemoconvulsants that induce seizures that mimic some features of human complex partial seizures with secondary generalization. Levetiracetam also displayed inhibitory properties in the kindling model in rats, another model of human complex partial seizures, both during kindling development and in the fully kindled state. The predictive value of these animal models for specific types of human epilepsy is uncertain. In vitro and in vivo recordings of epileptiform activity from the hippocampus have shown that levetiracetam inhibits burst firing without affecting normal neuronal excitability, suggesting that levetiracetam may selectively prevent hypersynchronization of epileptiform burst firing and propagation of seizure activity. Levetiracetam at concentrations of up to 10 μ M did not demonstrate binding affinity for a variety of known receptors, such as those associated with benzodiazepines, GABA (gammaaminobutyric acid), glycine, NMDA (N-methyl-D-aspartate), re-uptake sites, and second messenger systems. Furthermore, in vitro studies have failed to find an effect of levetiracetam on neuronal voltage-gated sodium or T-type calcium currents. Levetiracetam does not appear to directly facilitate GABAergic neurotransmission, but has been shown to oppose the activity of negative modulators of GABA- and glycine-gated currents in neuronal cell culture.

Pharmacokinetics

The pharmacokinetics of levetiracetam have been studied in healthy adult subjects, adults and pediatric patients with epilepsy, elderly subjects and subjects with renal and hepatic impairment. Overview Levetiracetam is rapidly and almost completely absorbed after oral administration. Levetiracetam tablets and oral solution are bioequivalent. The pharmacokinetics are linear and time-invariant, with low intra- and inter-subject variability. The extent of bioavailability of levetiracetam is not affected by food.

INDICATION AND USAGE:

LESTAM is indicated as adjunctive therapy in the treatment of partial onset seizures in adults and children 4 years of age and older with epilepsy.

CONTRAINDICATIONS:

This product should not be administered to patients who have previously exhibited hypersensitivity to levetiracetam or any of the inactive ingredients in **LESTAM** tablets or oral solution.

WARNINGS:

In adults, **LESTAM** use is associated with the occurrence of central nervous system adverse events that can be classified into the following categories: 1) somnolence and fatigue, 2) coordination difficulties, and 3) behavioral abnormalities. In controlled trials of adult patients with epilepsy, 14.8% of **LESTAM** treated patients reported somnolence, compared to 8.4% of placebo patients. There was no clear dose response up to 3000 mg/day. In a study where there was no titration, about 45% of patients receiving 4000 mg/day reported somnolence. The somnolence was considered serious in 0.3% of the treated patients, compared to 0% in the placebo group. About 3% of **LESTAM** treated patients discontinued treatment due to somnolence, compared to 0.7% of placebo patients. In 1.4% of treated patients and in 0.9% of placebo patients the dose was reduced, while 0.3% of the treated patients were hospitalized due to somnolence. In controlled trials of adult patients with epilepsy, 14.7% of treated patients reported asthenia, compared to 9.1% of placebo patients. Treatment was discontinued in 0.8% of treated patients as compared to 0.5% of placebo patients. In 0.5% of treated patients and in 0.2% of placebo patients the dose was reduced. A total of 3.4% of **LESTAM** treated patients experienced coordination difficulties, (reported as either ataxia, abnormal gait, or in coordination) compared to 1.6% of placebo patients. A total of 0.4% of patients in controlled trials discontinued **LESTAM** treatment due to ataxia, compared to 0% of placebo patients. In 0.7% of treated patients and in 0.2% of placebo patients the dose was reduced due to coordination difficulties, while one of the treated patients was hospitalized due to worsening of pre-existing ataxia. Page 11 of 30 Somnolence, asthenia and coordination difficulties occurred most frequently within the first 4 weeks of treatment. In controlled trials of patients with epilepsy, 5 (0.7%) of **LESTAM** treated patients experienced psychotic symptoms compared to 1 (0.2%) placebo patient. Two (0.3%) **LESTAM** treated patients were hospitalized and their treatment was discontinued. Both events, reported as psychosis, developed within

the first week of treatment and resolved within 1 to 2 weeks following treatment discontinuation. Two other events, reported as hallucinations, occurred after 1-5 months and resolved within 2-7 days while the patients remained on treatment. In one patient experiencing psychotic depression occurring within a month, symptoms resolved within 45 days while the patient continued treatment. Approximately half of these patients reported these events within the first 4 weeks. A total of 1.7% of treated patients discontinued treatment due to these events, compared to 0.2% of placebo patients. The treatment dose was reduced in 0.8% of treated patients and in 0.5% of placebo patients. A total of 0.8% of treated patients had a serious behavioral event (compared to 0.2% of placebo patients) and were hospitalized. In addition, 4 (0.5%) of treated patients attempted suicide compared to 0% of placebo patients. One of these patients successfully committed suicide. In the other 3 patients, the events did not lead to discontinuation or dose reduction. The events occurred after patients had been treated for between 4 weeks and 6 months.

DOSAGE AND ADMINISTRATION:

LESTAM is indicated as adjunctive treatment of partial onset seizures in adults and children 4 years of age and older with epilepsy. Adults 16 Years and Older In clinical trials, daily doses of 1000 mg, 2000 mg, and 3000 mg, given as twice-daily dosing, were shown to be effective. Although in some studies there was a tendency toward greater response with higher dose .a consistent increase in response with increased dose has not been shown. Treatment should be initiated with a daily dose of 1000 mg/day, given as twice-daily dosing (500 mg BID). Additional dosing increments may be given (1000 mg/day additional every 2 weeks) to a maximum recommended daily dose of 3000 mg. Doses greater than 3000 mg/day have been used in open-label studies for periods of 6 months and longer. There is no evidence that doses greater than 3000 mg/day confer additional benefit.

Dosing Guidelines for Children

| Patient Weight | Daily Dose | | |
|----------------|---|---|---|
| | 20 mg/kg/day (BID dosing) | 40 mg/kg/day (BID dosing) | 60 mg/kg/day (BID dosing) |
| 20.1-40 kg | 500 mg/day (1 x 250 mg tablet BID) | 1000 mg/day (1 x 500 mg tablet BID) | 1500 mg/day (1 x 750 mg tablet BID) |
| >40kg | 1000 mg/day (1 x 500 mg tablet BID) | 2000 mg/day (2 x 500 mg tablet BID) | 3000 mg/day (2 x 750 mg tablet BID) |

STORAGE & INSTRUCTIONS:

Keep out of reach of children & Store below 30°C.

Protect from sunlight & moisture

Improper storage may deteriorate the medicine

Do not use this medicine after the expiry date which is stated on the blister.

PRESENTATION:

LESTAM 250mg, Tablet available in a pack of 10's, 30's.

LESTAM 250mg, Tablet available in a pack of 10's, 30's.

Manufactured by :



PHARMA LORD

PHARMA LORD | 12km, Lahore
(PVT.) LIMITED | Road, Layyah.
Pakistan
www.pharma-lord.com

لیسٹم (لیویٹاز ایسٹام) ۲۵۰.۵۰۰.۲۵۰ ملی گرام گولیاں

خوراک: ڈاکٹر ہدایت کے مطابق استعمال کریں۔

ہدایت: بچوں کی پہنچ سے دور رکھیں۔

دوا کو دھوپ، گرمی اور نمی سے محفوظ ۳۰ ڈگری سینٹی گریڈ

سے کم درجہ حرارت پر رکھیں ورنہ دوا خراب ہو جائے گی۔