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For the use only of a Registered Medical Practitioner
or a Hospital or a Laboratory

LEVAZEO INJ

(Levosulpiride Injection)

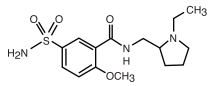
COMPOSITION :

Each ml contains :

Levosulpiride	12.5 mg
Water for injection I.P.	q.s.

DESCRIPTION :

Levosulpiride, the active isomer of sulpiride, is a N-[[(2S)-1-Ethylpyrrolidin-2-yl]methyl]-2-methoxy-5-sulfa moylbenzamide with molecular formula is: $C_{15}H_{23}N_3O_4S$ and molecular weight is 341.42. It is Practically insoluble in water, sparingly soluble in Methanol and slightly soluble in ethanol (96 %) and in methylene chloride. Freely soluble in Dimethyl-formamide.



CLINICAL PHARMACOLOGY

Pharmacodynamics

Levosulpiride acts selectively at D_2 receptors, in contrast to metoclopramide, which exerts antidopaminergic activity at both D_1 and D_2 receptor subtypes. Levosulpiride, like metoclopramide, has moderate agonistic effects at serotonin (5-hydroxytryptamine; 5-HT) 5-HT_4 receptors, a property that may further explain its prokinetic action. 5-HT_4 receptors are found in cholinergic neurons in the enteric nervous system, where they induce the release of acetylcholine, which stimulates gastrointestinal motility and transit. Activation of 5-HT_4 receptors is the main mechanism through which cisapride, a benzamide derivative without antidopaminergic properties, exerts its prokinetic action.

Pharmacokinetics

Levosulpiride shows linear pharmacokinetics. After administration of 50mg, the bioavailability is approximately 99% after intramuscular administration, and about 30% after oral administration of both tablets and oral solution (drops). The time to peak plasma concentration is approximately 3 hours, while the plasma elimination half life ranges from 6 to 19 hours depending on the dosage and route of administration. Metabolism does not occur and the drug is excreted unchanged in the urine. The lack of hepatic metabolism makes metabolic interactions with cytochrome P450 (CYP450) substrate drugs very unlikely.

INDICATIONS

It is indicated for the treatment of different gastrointestinal problems like functional dyspepsia, nausea, vomiting and diabetic gastro-paresis when oral therapy is not advisable/feasible.

CONTRAINDICATION

- Hypersensitivity to the drug or any other excipients of the formulation.
- Pheochromocytoma as it can cause hypertensive attack probably due to release of catecholamine from tumor, such attack can be controlled with phentolamine.
- Epilepsy, manic state such as in the manic phase of manic depressive psychosis.
- Concomitant prolactin dependent tumor like pituitary gland prolactinomas and Breast cancer.
- Pregnancy and lactation

WARNINGS AND PRECAUTION

Caution is advised when the drug is administered to patient with cerebrovascular events including risk factor for stroke. Caution is also advised when levosulpiride is gives to patients with cardiac insufficiency. Levosulpiride should not be used when gastrointestinal stimulation of motility can be harmful, e.g., in presence of gastrointestinal hemorrhage, mechanical obstructions or perforation. Levosulpiride may cause drowsiness is some patients, especially at higher doses, thus patient should be advised to exercise caution when driving or operating machinery. Sulpiride should be given with care to manic or hypomanic patients in whom it may exacerbate symptoms. Sulpiride is considered to be unsafe in patients with porphyria because it has been reported to be porphyrinogenic in animals.

Renal impairment: There was a progressive diminution in the rate of elimination and an increase in half-life with decreasing renal function. Sulpiride should be avoided if creatinine clearance is less than 10 mL/minute.

Drug Interactions

Caution is advised when levosulpiride is taken in combination with other centrally acting drugs. It can potentiate the cognitive and motor effect of alcohol. The effect of levosulpiride on gastrointestinal motility can he antagonized by anticholinergic drugs, narcotics and analgesic drugs.

USE IN SPECIFIC POPULATIONS

Pregnancy and Lactation: It is contraindicated.

ADVERSE REACTIONS

With prolonged administration of levosulpiride, disturbances such as amenorrhea, gynecomastia, galactorrhea, hyperprolactinemia and changes in libido are reported; in particular cases, reversible effects of levosulpiride on function of hypothalamic pituitary gonadal axis are reported. Drowsiness/ sedation, Breast tenderness, Hoarseness, Abdominal cramp, Menstrual changes/metrorrhagia, Weight gain, Galactorrhoea, Hypersalivation, Sleeplessness, Constipation, Vertigo and/or fatigue, headache, dry mouth, increased motor activity, agitation, sedation, mental confusion, hiccups, hot flushes, diarrhea and visual disorder may occur. Sleep disturbances, overstimulation, and agitation may occur. Cardiovascular effects such as hypotension are generally rare although they may occur with overdosage.

OVERDOSAGE

In the normal therapeutic dose range the possibility of side effects is less. But extra pyramidal disturbances and sleep disorders may occur with higher doses and in patients who are sensitive to neuroleptic drug. In such cases therapy should be halted or the dose should be reduced as dictated by the clinical condition of the patient.

DOSAGE AND ADMINISTRATION

For I.M. or I.V. use only

If the patient exhibit severe nausea & vomiting and oral administration is difficult then only initiate the levosulpiride injection.

Levosulpiride 25 mg (2 ml) 2 to 3 times I.M. or I.V., administer till the symptoms disappear. Patient should be switched to oral therapy as soon as possible.

Elderly: Caution is advised when used in the elderly patients and the dose should be carefully stabilized.

EXPIRY DATE

Do not use later than expiry date

STORAGE CONDITION

Store at a temperature not exceeding 30°C. Protect from light. Keep out of reach of children

PRESENTATION

Levazeo Injection is available in 2 ml ampoule.

torrent

Manufactured by :
TORRENT PHARMACEUTICALS LTD.
Indrad-382 721, Dist. Mehsana, INDIA.

At: J-174, MIDC, Tarapur, Boisar,
Dist.: Thane- 401 506