

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

ESPRAN 5MG/10MG/20MG TABLET

(Escitalopram Oxalate Tablets, 5 mg, 10 mg & 20 mg)

ESPRAN 5MG TABLET

Each film coated tablet contains:
Escitalopram Oxalate 6.387 mg
equivalent to Escitalopram 5 mg
Color: Titanium Dioxide

ESPRAN 10MG TABLET

Each film coated tablet contains:
Escitalopram Oxalate 12.774 mg
equivalent to Escitalopram 10 mg
Color: Titanium Dioxide

ESPRAN 20MG TABLET

Each film coated tablet contains:
Escitalopram Oxalate 25.548 mg
equivalent to Escitalopram 20 mg
Color: Titanium Dioxide

DOSAGE FORM:

Film Coated Tablets

PRODUCT DESCRIPTION

ESPRAN 5MG TABLET

White to off white, round, biconvex, film coated tablets debossed with "135" on one side and '5' on other side.

ESPRAN 10MG TABLET

White to off – white, round, biconvex, film coated tablets debossed with break line on both sides, separating '11' and '36' on one side and '10' on other side.

ESPRAN 20MG TABLET

White to off-white, round, biconvex, film coated tablets debossed with break line on both sides, separating "11" and "37" on one side and "20" on the other side.

CLINICAL PHARMACOLOGY

Pharmacodynamics

Escitalopram Oxalate is an orally administered selective serotonin reuptake inhibitor (SSRI). Escitalopram is the pure S-enantiomer (single isomer) of the racemic bicyclic phthalane derivative citalopram. The mechanism of antidepressant action of Escitalopram, the S-enantiomer of racemic citalopram, is presumed to be linked to potentiation of serotonergic activity in the central nervous system resulting from its inhibition of CNS neuronal reuptake of serotonin (5-HT). Escitalopram is at least 100 fold more potent than the R-enantiomer with respect to inhibition of 5-HT reuptake and inhibition of 5-HT neuronal firing rate.

Escitalopram has no or very low affinity for serotonergic (5-HT₁₋₇) or other receptors including alpha-and beta-adrenergic, dopamine (D₁₋₅), histamine (H₁₋₃), muscarinic (M₁₋₅) and benzodiazepine receptors. Escitalopram also does not bind to or has low affinity for various ion channels including Na⁺, K⁺, Cl⁻ and Ca²⁺ channels. Antagonism of muscarinic, histaminergic and adrenergic receptors has been hypothesized to be associated with various anticholinergic, sedative and cardiovascular side effects of other psychotropic drugs.

Pharmacokinetics

The single-and multiple-dose pharmacokinetics of Escitalopram are linear and dose-proportional in a dose range of 10 to 30 mg/day. Biotransformation of Escitalopram is mainly hepatic, with a mean terminal half-life of about 27-32 hours. With once daily dosing, steady state plasma concentrations are achieved within approximately one week. At steady state, the extent of accumulation of Escitalopram in plasma in young healthy subjects was 2.2-2.5 times the plasma concentrations observed after a single dose.

Absorption and Distribution

Following a single oral dose (20mg tablet) of Escitalopram, the mean T_{max} was 5±1.5 hours. Absorption of Escitalopram is not affected by food.

The absolute bioavailability of citalopram is about 80% relative to an intravenous dose, and the volume of distribution of citalopram is about 12L/kg. Data specific to Escitalopram are unavailable. The binding of Escitalopram to human plasma proteins is approximately 56%.

Metabolism and Elimination

Following oral administrations of Escitalopram, the fraction of drug recovered in the urine as Escitalopram and S-demethylcitalopram (S-DCT) is about 8% and 10% respectively. The oral clearance of the Escitalopram is 600 mL/min, with approximately 7% of that due to renal clearance.

Escitalopram is metabolized to S-DCT and S-didemethylcitalopram (S-DDCT). In humans, unchanged Escitalopram is the predominant compound in plasma. At steady state, the concentration of Escitalopram metabolite S-DCT in plasma is approximately one-third that of Escitalopram. CYP3A4 and CYP2C19 are the primary isozymes involved in the N-demethylation of Escitalopram.

Population Subgroups

Age - Escitalopram AUC and half-life is increased by approximately 50% in elderly subjects, and C_{max} is unchanged. 10mg is the recommended dose for elderly.

Gender - There are no differences in AUC, C_{max} and half-life between the male and female subjects so no adjustment of dosage on the basis of gender is needed.

Reduced renal function - In patients with mild to moderate renal function impairment, oral clearance of citalopram was reduced by 17% compared to normal subjects. No adjustment of dosage for such patients is recommended. No information is available about the pharmacokinetics of Escitalopram in patients with severely reduced renal function (creatinine clearance ≤20mL/min).

Reduced Hepatic function - Citalopram oral clearance was reduced by 37% and half –life was doubled in patients with reduced hepatic function compared to normal subjects. 10 mg is recommended dose of Escitalopram for most hepatically impaired patients.

INDICATIONS:

It is indicated for the treatment of major depressive episodes.

RECOMMENDED DOSAGE

Safety of daily doses above 20mg has not been demonstrated.

ESPRAN is administered as a single daily dose and may be taken with or without food.

Major depressive episodes

Usual dosage is 10mg once daily. Depending on individual patient response, the dose may be increased to a maximum of 20 mg daily.

Usually 2-4 weeks are necessary to obtain antidepressant response. After the symptoms resolve, treatment for at least 6 months is required for consolidation of the response.

Elderly Patients (> 65 years of age)

Initial treatment with half the usually recommended dose and a lower maximum dose should be considered.

Children and Adolescents (<18 years)

ESPRAN should not be used in the treatment of children and adolescents under the age of 18 years.

Reduced Renal Function

Dosage adjustment is not necessary in patients with mild or moderate renal impairment. Caution is advised in patients with severely reduced renal function (CL_{CR} less than 30 ml/min.).

Reduced Hepatic Function

An initial dose of 5mg daily for the first two weeks of treatment is recommended. Depending on individual patient response, the dose may be increased to 10 mg daily.

Poor Metabolisers of CYP2C19

For patients who are known to be poor metabolisers with respect to CYP2C19, an initial dose of 5 mg daily during the first two weeks of treatment is recommended. Depending on individual patient response, the dose may be increased to 10mg daily.

Discontinuation symptoms

When stopping treatment with ESPRAN the dose should be gradually reduced over a period of at least one to two weeks in order to avoid possible discontinuation symptoms.

Mode of Administration:

Oral

CONTRAINDICATIONS:

Monoamine oxidase inhibitors (MAOIs)

Concomitant use in patients taking monoamine oxidase inhibitors (MAOIs) is contraindicated.

Hypersensitivity to escitalopram or citalopram

Escitalopram is contraindicated in patients with a hypersensitivity to escitalopram or citalopram or any of the inactive ingredients in Escitalopram.

WARNING AND PRECAUTIONS:

Antidepressants should not be used in the treatment of children and adolescents under age at 18 years. Suicide related behaviors (suicide attempt and suicidal thoughts) and hostility (predominantly aggression oppositional behavior and anger) were more frequently observed in children and adolescent treated with antidepressants compared to those treated with placebo. If based on clinical need, a decision to treat nevertheless taken, the patient should be carefully monitored for the appearance of suicidal symptoms.

The following special warnings and precautions apply to the therapeutic class of SSRIs (Selective Serotonin Reuptake Inhibitors).

Paradoxical Anxiety

Some patients with panic disorder may experience increased anxiety symptoms at the beginning of treatment with antidepressants. This paradoxical reaction usually subsides within the first two weeks of treatment. A low starting dose is advised to reduce the likelihood of an anxiogenic effect.

Seizures

The medicinal product should be discontinued in any patient who develops seizures. SSRIs should be avoided in patients with unstable epilepsy and patients with controlled epilepsy should be carefully monitored. SSRIs should be discontinued if there is an increase in seizure frequency.

Mania

SSRIs should be used with caution in patients with a history of mania/hypomania. SSRIs should be discontinued in any patients entering a manic phase.

Diabetes

In patients with diabetes, treatment with an SSRI may alter glycaemic control, Insulin and/or oral hypoglycaemic dosage may need to be adjusted.

Suicide/Suicidal thought

Depression is associated with an increased risk of suicidal thoughts, self harm and suicide (suicide-related events). This risk persists until significant remission occurs. As improvement may not occur during the first few weeks or more of treatment, patients should be closely monitored until such improvement occurs. It is general clinical experience that the risk of suicide may increase in the early stages of recovery. Other psychiatric conditions for which escitalopram in prescribed can also be associated with an increased risk of suicide-related events. In addition, these conditions may be co-morbid with major depressive disorder. The same precautions observed when treating patients with major depressive disorder should therefore be observed when treating patients with other psychiatric disorders.

Patients with a history of suicide related events, or those exhibiting a significant degree of suicidal ideation prior to commencement of treatment are at greater risk of suicidal thoughts or suicidal attempts, and should receive careful monitoring during treatment. In addition, there is a possibility of an increased risk of suicidal behavior in young adults. Patients (and care givers of patients) should be alerted about the need to monitor for the emergence of such events and to seek medical advice immediately if these symptoms present.

Akathisia/psychomotor restlessness:

The use of SSRIs has been associated with the development of akathisia, characterized by a subjective unpleasant or distressing restlessness and need to move often accompanied by an inability to sit or stand still. This is most likely to occur within the first few weeks of treatment. In patients who develop these symptoms, increasing the dose may be detrimental.

Hyponatraemia

Hyponatraemia, probably due to inappropriate antidiuretic hormone secretion (SIADH), has been reported rarely with the use of SSRIs and generally resolves on discontinuation of therapy. Caution should be exercised in patients at risk, such as elderly, cirrhotic patients or patients concomitantly treated with medications known to cause hyponatraemia.

Haemorrhage

There has been reports of cutaneous bleeding abnormality, such as ecchymoses and purpura with SSRIs. Caution is advised in patients taking SSRIs particularly with concomitant use of oral anticoagulants, medicinal products known to affect platelet function (e.g. atypical antipsychotic and phenothiazines, most tricyclic antidepressants, acetylsalicylic acid and non-steroidal anti-inflammatory medicinal products (NSAIDs), ticlopidine and dipyridamole) and in patients with known bleeding tendencies.

ECT (Electroconvulsive therapy)

There is limited clinical experience of concurrent administration of SSRIs and ECT; therefore caution is advisable.

Reversible, Selective MAOA inhibitors

The combination of escitalopram with MAOA inhibitors is generally not recommended due to the risk of onset of a serotonin syndrome.

Serotonin Syndrome

Caution is advisable if escitalopram is used concomitantly with medicinal products with serotonergic effects such as sumatriptan or other triptans, tramadol and tryptophan. In rare cases, serotonin syndrome has been reported in patients using SSRIs concomitantly with serotonergic medicinal products. A combination of symptoms such as agitation, tremor, myoclonus and hyperthermia may indicate the development of this condition. If this occurs, treatment with the SSRI and the serotonergic medicinal product should be discontinued immediately and symptomatic treatment indicated.

Potential for interaction with Monoamine Oxidase Inhibitors

In patients receiving serotonin reuptake inhibitor drugs in combination with a Monoamine Oxidase Inhibitors (MAOI) there have been reports of serious, sometimes fatal reactions including hyperthermia, rigidity, myoclonus, autonomic instability with possible rapid fluctuations of vital signs and mental status changes that include extreme agitation progressing to delirium and coma. These reactions have also been reported in patients who have recently discontinued SSRI treatment and have been started on an MAOI. Some cases presented with features resembling neuroleptic malignant syndrome. Furthermore limited animal data on the effects of combined use of SSRIs and MAOIs suggest that these drugs may act synergistically to elevate blood pressure and evoke behavioural excitation therefore it is recommended that ESPRAN should not be used in combination with an MAOI or within 14 days of discontinuing treatment with an MAOI. Similarly at least 7 days should be allowed after stopping ESPRAN before starting an MAOI.

St. John's Wort

Concomitant use of SSRI and herbal remedies containing St. John's Wort (*Hypericum perforatum*) may result in an increased incidence of adverse reactions.

Discontinuation symptoms seen when stopping treatment

Discontinuation symptoms seen when stopping treatment are common, particularly if discontinuation is abrupt.

The risk of discontinuation symptoms may be dependent on several factors including the duration and dose of therapy and the rate of dose reduction. Dizziness, sensory disturbances (including paraesthesia, and electric shock sensations), sleep disturbances (including insomnia and intense dreams), agitation or anxiety, nausea and/or vomiting, tremor, confusion, sweating, headache, diarrhoea, palpitations, emotional instability, irritability and visual disturbances are the most commonly reported reactions. Generally those reactions are mild to moderate; however, in some patients they may be severe in intensity.

They usually occur within the first few days of discontinuing treatment, but there have been very rare reports of such symptoms in patients who have inadvertently missed a dose.

Generally these symptoms are self-limiting and usually resolve within 2 weeks, though in some individuals they may be prolonged (2-3 months or more). It is therefore advised that escitalopram should be gradually tapered when discontinuing treatment over a period of several weeks or months, according to the patient's needs.

Special warning - Suicidality in Children and Adolescents

- Antidepressants increase the risk of suicidal thinking and behavior (suicidality) in children and adolescents with major depressive disorder (MDD) and other psychiatric disorders.
- Anyone considering the use of an antidepressant in a child or adolescent for any clinical use must balance the risk of increased suicidality with the clinical need.
- Patients who are started on therapy should be observed closely for clinical worsening, suicidality, or unusual changes in behavior.
- Families and caregivers should be advised to closely observe the patient and to communicate with the prescriber.

Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenesis

Racemic citalopram was administered in the diet to NMRI/BOM strain mice and COBS W1 strain rats for 18 and 24 months, respectively. There was no evidence for carcinogenicity of racemic citalopram in mice receiving up to 240 mg/kg/day. There was an increased incidence of small intestine carcinoma in rats receiving 8 or 24 mg/kg/day racemic citalopram. A no-effect dose for this finding was not established. The relevance of these findings to humans is unknown.

Mutagenesis

Racemic citalopram was mutagenic in the *in vitro* bacterial reverse mutation assay (Ames test) in 2 of 5 bacterial strains (Salmonella TA98 and TA1537) in the absence of metabolic activation. It was clastogenic in the *in vitro* Chinese hamster lung cell assay for chromosomal aberrations in the presence and absence of metabolic activation. Racemic citalopram was not mutagenic in the *in vitro* mammalian forward gene mutation assay (HPRT) in mouse lymphoma cells or in a coupled *in vitro/in vivo* unscheduled DNA synthesis (UDS) assay in rat liver. It was not clastogenic in the *in vitro* chromosomal aberration assay in human lymphocytes or in two *in vivo* mouse micronucleus assays.

Impairment of Fertility

When racemic citalopram was administered orally to 16 male and 24 female rats prior to and throughout mating and gestation at doses of 32, 48, and 72 mg/kg/day, mating was decreased at all doses, and fertility was decreased at doses ≥ 32 mg/kg/day. Gestation duration was increased at 48 mg/kg/day.

INTERACTION WITH OTHER MEDICAMENTS:

CNS Drugs - Due to CNS effects of Escitalopram, caution should be used when it is taken in combination with other centrally acting drugs.

Alcohol - Although racemic citalopram did not potentiate the cognitive and motor effects of alcohol, the use of alcohol by patients taking Escitalopram is not recommended.

Lithium - Lithium may enhance the serotonergic effects of Escitalopram; caution should be exercised when Escitalopram and lithium are co-administered.

Sumatriptan - There have been rare reports of weakness, hyperreflexia and in-coordination following the use of a selective serotonin reuptake inhibitor (SSRI) and sumatriptan. If concomitant treatment of sumatriptan and an SSRI is clinically warranted, appropriate observation of the patient is advised.

Ketoconazole - Combined administration of racemic citalopram (40mg), and Ketoconazole (200mg) decreased the C_{max} and AUC of Ketoconazole by 21% and 10%, respectively, and did not significantly affect the pharmacokinetics of citalopram.

CYP3A4 and -2C19 inhibitors - Co-administration of Escitalopram (20mg) and ritonavir (800mg) a potent inhibitor of CYP3A4, did not significantly affect the pharmacokinetics of Escitalopram. Because Escitalopram is metabolized by multiple enzyme systems, inhibition of a single enzyme may not appreciably decrease Escitalopram clearance.

Drugs Metabolized by Cytochrome P4502D6 - Co-administration of Escitalopram (20mg/day for 21 days) with the tricyclic antidepressant desipramine (single dose of 50mg), a substrate for CYP2D6, resulted in a 40% increase in C_{max} and a 100% increase in AUC of desipramine. Caution is indicated in the co-administration of Escitalopram and drugs metabolized by CYP2D6.

Metoprolol - Administration of 20 mg/day Escitalopram for 21 days resulted in a 50% increase in C_{max} and 82% increase in AUC of the beta-adrenergic blocker Metoprolol (given in a single dose of 100 mg). Increased Metoprolol plasma levels have been associated with decreased cardio-selectivity. Co-administration of Escitalopram and Metoprolol had no clinically significant effects on blood pressure or heart rate.

Co-administration of Citalopram with Triazolam, Carbamazepine, Warfarin, Theophylline, Digoxin and cimetidine did not affect pharmacokinetics of either citalopram or any of the drugs.

PREGNANCY AND LACTATION:

Pregnancy

There are no adequate and well-controlled studies in pregnant women; therefore, Escitalopram should be used during pregnancy only if the potential benefit justifies the potential risk to the foetus.

Labor and Delivery

The effect of Escitalopram on labor and delivery in humans is unknown.

Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

ADVERSE EFFECTS / UNDESIRABLE EFFECTS:

The most commonly observed adverse events in Escitalopram patients are insomnia, ejaculation disorder (primarily ejaculatory delay), nausea, sweating increased, fatigue and somnolence. The other adverse events are palpitation, hypertension, paraesthesia, tremor, migraine, light headache feeling, vomiting, heartburn, gastroenteritis, abdominal pain, allergy, fever, chest pain, increased weight, decreased weight, arthralgia, muscle cramp, appetite increased, lethargy, bronchitis, sinus congestion, sinus headache, coughing, rash, vision blurred, ear ache, tinnitus, urinary tract infection, urinary frequency etc.

OVERDOSE AND TREATMENT:

Toxicity

Clinical data on escitalopram overdose are limited and many cases involve concomitant overdoses of other drugs. In the majority of cases mild or no symptoms have been reported. Fatal cases of escitalopram overdose have rarely been reported with escitalopram alone. The majority of cases have involved over dose with concomitant medications. Doses between 400 and 800mg of escitalopram alone have been taken without any severe symptoms.

Symptoms

Symptoms seen in reported overdose of escitalopram include symptoms mainly related to the central nervous system (ranging from dizziness, tremor and agitation to rare cases of serotonin syndrome, convulsion, and coma), the gastrointestinal system (nausea/vomiting), and the cardiovascular system (hypotension, tachycardia, QT prolongation and arrhythmia) and electrolyte/fluid balance conditions (hypokaemia, hyponatraemia).

Treatment

There is no specific antidote. Establish and maintain an airway, ensure adequate oxygenation and respiratory function. Gastric lavage and the use of activated charcoal should be considered. Gastric lavage should be carded out as soon as possible after oral ingestion. Cardiac and vital signs monitoring are recommended along with general symptomatic supportive measures.

STORAGE:

Store below 30°C.

Keep medicines out of reach of children.

PACKAGING AVAILABLE:

Espran 5mg, 10mg and 20mg tablets are packed in Alu-Alu blister of 10 tablets. Such blisters containing 10 tablets are packed into a carton of 10's, 30's and 100's.

Not all presentations may be available locally.

EXPIRY DATE:

36 months from the date of manufacturing

DATE OF REVISION OF PACKAGING INSERT

July 02, 2012



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