Product Information

Nausicalm

Cyclizine hydrochloride 50 mg tablets.

Name of the Medicine

Cyclizine hydrochloride.

Cyclizine hydrochloride has the following chemical structure:

It has the chemical formula $C_{18}H_{22}N_2$.HCl with a molecular weight of 302.84. The CAS number is 82-92-8.

Description

Cyclizine hydrochloride is a white to almost white crystalline powder. It is slightly soluble in water and in ethanol (96%).

Nausicalm tablets contain 50 mg of cyclizine hydrochloride.

Nausicalm tablets also contain potato starch, lactose monohydrate, gum acacia, and magnesium stearate.

Pharmacology

Cyclizine is a piperazine derivative with the general properties of H_1 -blocking drugs but is used as an anti-emetic in a variety of clinical situations including drug-induced and motion sickness, vertigo, post-operative vomiting and radiation sickness. The mechanism of the anti-emetic effect is unclear. Cyclizine also possesses anticholinergic activity but does not have marked sedative effects.

Pharmacokinetics

The bioavailability of Nausicalm tablets is approximately 40%.

In fasted, healthy male subjects given an oral dose of one single 50 mg Nausicalm tablet, peak plasma concentration of cyclizine was 15 ± 10 ng/mL, with a T_{max} of 4 ± 2 hours, $AUC_{0\text{-inf}}$ of 409 ± 196 ng.hr/mL, and elimination half-life of 26 ± 7 hours.

Cyclizine is extensively N-demethylated to the largely inactive metabolite norcyclizine, which is widely distributed throughout the tissues and has a plasma half-life of less than one day.

Indications

Nausicalm is indicated for the prevention and treatment of nausea and vomiting associated with motion sickness and radiotherapy.

Contraindications

Nausicalm should not be given to individuals with known hypersensitivity to cyclizine or in individuals with severe heart failure.

Warnings and Precautions

Use in children

Not recommended for use in children 12 years and under.

Use in the elderly

There have been no specific studies of cyclizine in the elderly. Experience has indicated that normal adult dosage is appropriate

Effects on fertility

The effects of cyclizine on human fertility are unknown. There are no adequate nonclinical studies of the effects of cyclizine on fertility.

Use in pregnancy: Category B3

This medicine has only been taken by a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed.

Studies in animals have shown evidence of an increased occurrence of fetal damage, the significance of which is considered uncertain in humans.

Administration of cyclizine to rat, mice and rabbits during gestation was associated with malformations including cleft palate and various cephalic abnormalities; the no-effect doses determined in rats and rabbits were 50 and 25 mg/kg/day, respectively.

In the absence of any definitive human data, the use of cyclizine in pregnancy is not advised.

Use in lactation

It is not known whether cyclizine or its metabolites are excreted in human milk.

Effect on Ability to Drive and Use Machines

Studies designed to detect drowsiness did not reveal sedation in healthy adults who took a single oral therapeutic dose (50 mg) of cyclizine.

Patients should not drive or operate machinery until they have determined their own response.

Although there are no data available, patients should be cautioned that cyclizine may have additive effects with alcohol and other central nervous system depressants, e.g. hypnotics and tranquillisers.

Potential anticholinergic effects

Cyclizine should be used with caution in patients with glaucoma, gastrointestinal obstructive disorders, urinary retention/obstruction, asthma, chronic obstructive pulmonary disease and prostatic hypertrophy.

Porphyria

Cyclizine should be administered with caution in porphyria.

Epilepsy

Cyclizine should be administered with caution in patients with epilepsy.

Sunlight

Cyclizine may increase sensitivity to sunlight.

Interactions with Other Medicines

The following interactions with cyclizine have been noted:

- Cyclizine may have additive effects with alcohol and other central nervous system depressants e.g. hypnotics, tranquillisers.
- Cyclizine enhances the soporific effect of pethidine.
- Because of its anticholinergic activity cyclizine may enhance the side-effects of other anticholinergic drugs

Adverse Effects

Blood and lymphatic system disorders

Agranulocytosis.

Cardiac disorders

Tachycardia.

Eye disorders

Blurred vision, oculogyric crisis.

Gastrointestinal system disorders

Dryness of the mouth, nose and throat, constipation.

General disorders and administration site conditions

Asthenia.

Hepatobiliary disorders

Hepatic dysfunction, hypersensitivity hepatitis, cholestatic jaundice and cholestatic hepatitis have occurred in association with cyclizine.

Immune system disorders

Hypersensitivity reactions, including anaphylaxis have occurred.

Musculoskeletal and connective tissue disorders

Twitching, muscle spasms.

Nervous system disorders

Effects on the central nervous system have been reported with cyclizine: these include somnolence, headache, dystonia, dyskinesia, extrapyramidal motor disturbances, tremor, convulsions, dizziness, decreased consciousness, transient speech disorders, paraesthesia and generalised chorea.

Psychiatric disorders

Disorientation, restlessness, nervousness, insomnia and auditory and visual hallucinations have been reported, particularly when dosage recommendations have been exceeded.

Renal and urinary disorders

Urinary retention.

Respiratory, thoracic and mediastinal disorders

Bronchospasm, apnoea.

Skin and subcutaneous tissue disorders

Urticaria, drug rash, angioedema, allergic skin reactions, fixed drug eruption.

Vascular disorders

Hypertension.

Dosage and Administration

For the Treatment of nausea induced by radiotherapy:

Adults and children over 12 Years: One tablet every 6 to 8 hours, as required with a little water (up to a maximum of 3 tablets in 24 hours)

<u>Use in the Elderly</u>: There have been no specific studies of cyclizine in the elderly. Experience has indicated that normal adult dosage is appropriate.

For the Prevention of Travel Sickness:

Adults and children over 12 Years: One tablet every 6 to 8 hours (up to a maximum of 3 tablets in 24 hours), as required with a little water, first taken 1-2 hours before departure.

The score line only serves to facilitate breaking for ease of swallowing and does not divide the tablet into equal half-doses.

This product should not be used for more than 48 hours at a time

Overdosage

Symptoms of acute toxicity from cyclizine arise from peripheral anticholinergic effects and effects on the central nervous system.

Peripheral anticholinergic symptoms include, dry mouth, nose and throat, blurred vision, tachycardia and urinary retention. Central nervous system effects include drowsiness, dizziness, incoordination, ataxia, weakness, hyper-excitability, disorientation, impaired judgement, hallucinations, hyperkinesia, extrapyramidal motor disturbances, convulsions, hyperpyrexia and respiratory depression.

An oral dose of 5 mg/kg is likely to be associated with at least one of the clinical symptoms stated above. Younger children are more susceptible to convulsions. The incidence of convulsions, in children less than 5 years, is about 60% when the oral dose ingested exceeds 40 mg/kg.

Treatment

In the management of acute overdosage with cyclizine, supportive measures for respiration and circulation should be performed if necessary. Convulsions should be controlled in the usual way with parenteral anticonvulsant therapy.

Presentation and Storage

Nausicalm tablets are white, circular, biconvex, uncoated tablets with a score line on one side, plain on the other. These are supplied in a blister pack of 6, 50 and 100 tablets.

Store below 30°C. Protect from light.

Store in a safe place out of the reach of children.

Product Owner

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