HOSPIMAX
Maximising Life

Cinapath™

Cinacalcet Hydrochloride 30 mg Tablets

Solitary Path to Reduce SHPT

Product Description:

- Cinapath: Each tablet contains Cinacalcet Hydrochloride 30 mg

General Information:

Cinapath(Cinacalcet Hydrochloride)is a calcium sensing receptor agonist used to treat secondary hyperparathyroidism in chronic kidney disease and hypercalcemia in parathyroid carcinoma.

Indications

Cinacalcet is a calcium-sensing receptor agonist indicated for:

- Secondary Hyperparathyroidism (SHPT) in patients with chronic kidney disease (CKD) on dialysis.
- Hypercalcemia in patients with Parathyroid Carcinoma (PC).
- Severe hypercalcemia in patients with primary Hyperparathyroidism(HPT) who are unable to undergo parathyroidectomy.

Dosage and administration:

For all indications, Cinacalcet should be taken with food or shortly after a meal and should always be taken whole and not divided.

Secondary HPT in patients with CKD on dialysis

- Starting dose is 30 mg once daily.
- Titrate dose no more frequently than every 2 to 4 weeks through sequential doses of 30, 60, 90, 120, and 180 mg once daily as necessary to achieve targeted intact parathyroid hormone (iPTH) levels.

Hypercalcemia in patients with Parathyroid Carcinoma (PC) or severe hypercalcemia in patients with primary HPT

- Starting dose is 30 mg twice daily.
- Titrate dose every 2 to 4 weeks through sequential doses of 30 mg twice daily, 60 mg twice daily, 90 mg twice daily, and 90 mg three or four times daily as necessary to normalize serum calcium levels.

MECHANISM OF ACTION

- The goals of treatment of secondary Hyperparathyroidism are to lower the levels of PTH, calcium, and phosphorus in the blood in order to prevent progressive bone disease and the systemic consequences of disordered mineral metabolism.
- Cinacalcet directly lowers PTH levels by increasing the sensitivity of the calcium-sensing receptor to extracellular calcium.

PHARMACOKINETIC:

Absorption

Rapidly absorbed following oral administration, peak plasma concentrations of cinacalcet occur within 2-6 hours.maximum plasma concentration and area under the curve (AUC) of cinacalcet increases by 82% and 68%, respectively, when it is administered with a high-fat meal compared to fasting. Cmax and AUCof cinacalcet were increased 65% and 50%, respectively, when cinacalcet was administered with a low-fat meal compared to fasting.

Distribution

The volume of distribution is high (approximately 1000 L), indicating extensive distribution. Cinacalcet is approximately 93 to 97% bound to plasma protein(s). The ratio of blood cinacalcet concentration to plasma cinacalcet concentration is 0.80 at a blood cinacalcet concentration of 10 ng/mL.

Metabolism

Metabolism is hepatic by multiple enzymes, primarily CYP3A4, CYP2D6, and CYP1A2. After administration of a 75 mg radiolabeled dose to healthy volunteers, cinacalcet was rapidly and extensively metabolized via: 1) oxidative N-dealkylation to hydrocinnamic acid and hydroxy-hydrocinnamic acid, which are further metabolized via ß-oxidation and glycine conjugation; the oxidative N-dealkylation process also generates metabolites that contain the naphthalene ring; and 2) oxidation of the naphthalene ring on the parent drug to form dihydrodiols, which are further conjugated with glucuronic acid.

Excretion

Cinacalcet is metabolized by multiple enzymes, primarily CYP3A4, CYP2D6 and CYP1A2. Renal excretion of metabolites was the primary route of elimination of radioactivity.

SPECIAL POPULATIONS

Use in Specific Population:

Pregnancy: However, there are no adequate data in pregnant women and, therefore, should not be used during pregnancy unless the expected benefit to the mother outweighs the potential risk to the foetus.

Nursing Women: Cinapath passes into breast milk. Mothers receiving treatment with cinapath should not breast feed.A decision should be made to discontinue breastfeeding or discontinue the drug, taking into account the importance of the drug to the mother.

Fertility: There is a limited data on the effect of cinapath on human fertility. No impairment in fertility was demonstrated in studies in male and female rats

Renal Impairment: No dosage adjustment is necessary for renal impairment

Paediatric Use: The safety and efficacy of cinapath in paediatric patients have not been established. Cinapath is not indicated for use in paediatric patients. A fatal outcome was reported in a paediatric clinical trial patient with severe hypocalcemia.

Geriatric Use: The pharmacokinetic profile of cinacalcet in geriatric patients (age ≥ 65, n = 12) is similar to that for patients who are < 65 years of age (n = 268).

Contraindications: Treatment initiation is contraindicated if serum calcium is less thanthe lower limit of the normal range.

Hepatic Impairment

Patients with moderate and severe hepatic impairment should have serum calcium, serum phosphorus, and iPTH levels monitored closely throughout treatment with Cinapath because cinacalcet exposure (AUC) is increased by 2.4 and 4.2 fold, respectively, in these patients

Warnings And Precautions:

- **Hypocalcemia:**Life threatening events and fatal outcomes werereported. Hypocalcemia can prolong QT interval, lower the thresholdfor seizures, and cause hypotension, worsening heart failure, and/orarrhythmia. Monitor serum calcium carefully for the occurrence ofhypocalcemia during treatment.
- **Upper Gastrointestinal (GI) Bleeding:**Patients with risk factors forupper GI bleeding may be at increased risk. Monitor patients andpromptly evaluate and treat any suspected GI bleeding.
- **Hypotension,** Worsening Heart Failure and/or Arrhythmias: Inpostmarketing safety surveillance, isolated, idiosyncratic cases ofhypotension, worsening heart failure, and/or arrhythmia have beenreported in patients with impaired cardiac function.
- **Adynamic Bone Disease:** May develop if iPTH levels are suppressedbelow 100 pg/mL.

Drug Interactions:

- Co-administration with a strong CYP3A4 inhibitor may increase serum levels of cinacalcet. Dose adjustment and monitoring of iPTH serum phosphorus and serum calcium may be required.
- Cinacalcet is a strong inhibitor of CYP2D6. Dose adjustments may be required for concomitant medications that are predominantly metabolized by CYP2D6.

Adverse Reactions: Most side effects do not require any medical attention and disappear as your body adjusts to the medicine. Consult your doctor if they persist or if you're worried about them

- **Vomiting**
- **Nausea**
- **Rash**
- **Headache**
- **Muscle pain**
- **Diarrhea**