Natrapharm

Rx

Felodipine

Felodipin-Natrapharm®

Calcium Channel Blocker

Formulation:
Each Extended-Release Tablet contains:
Felodipine .....5mg.

Indication:
Felodipine is indicated for the treatment of hypertension. It may be used alone or concomitantly with other antihypertensive agents.

Pharmacological properties:
Felodipine is a calcium antagonist of the dihydropyridine class of calcium channel blockers. Calcium antagonist interfere with the voltage-dependent L-type (slow) calcium channels in the plasma membranes of smooth muscle cells and reduce the inflow of calcium ions with the result of vasodilator. Felodipine is a vasoselective calcium antagonist: it has a much greater selectivity for vascular smooth muscle than for myocardial muscles. Felodipine selectively dilates arterioles with no effects on venous vessels.
Felodipine leads to a dose-related lowering of blood pressure via a vasodilatation and consequently a reduction of peripheral vascular resistance. It reduces both systolic and diastolic blood pressure. The hemodynamic effect of Felodipine is accompanied by reflex (baroreceptor-mediated) tachycardia. In therapeutic doses, Felodipine has no direct effect on either cardiac contractility or cardiac conduction. Felodipine reduces renal vascular resistance. The glomerular filtration rate remains unchanged.

Pharmacokinetics:
Felodipine is rapidly and completely absorbed following oral administration. Peak plasma levels are reached with the prolonged release formulation after 3–5 hours. Constant levels are achieved approximately 3 days after starting treatment. Due to an extensive first-pass effect, only approximately 15% of the administered dose is systemically available. The plasma protein binding of Felodipine is > 99%. The volume of distribution is 10 L/kg. So that Felodipine is rapidly distributed in extra vascular tissue. Felodipine is extensively metabolized in the liver. No unchanged parent substance is detectable in the urine. The inactive hydrophilic metabolites formed by hepatic biotransformation are mainly eliminated renally (to approximately 70%) and the remainder is excreted in the feces. Felodipine is eliminated in several phases. Approximately 50% of the administered dose is excreted with a half-life of 4 hours and the mean terminal half-life is 18 hours. The mean plasma clearance is 1100 ml/l and depends on the hepatic blood flow. Elevated plasma concentrations have been measured in patients with impaired hepatic functions and in elderly patients. Renal impairment does not affect the pharmacokinetics of Felodipine, although accumulation of inactive metabolites occurs in renal failure. The bioavailability of Felodipine is affected by the simultaneous ingestion of fatty food (increase in plasma level).

Side effects:
Frequently, flushing, headache or tinnitus may occur, particularly at the beginning of treatment, when the dose is increased or when high doses are administered.
Occasionally peripheral edema occurs. Occasionally, particularly at the beginning of treatment, angina pectoris attacks may occur, or in patients with pre-existing angina pectoris there may be an increase in the frequency, duration and severity of the attacks.
Myocardial infarction has been reported in isolated cases.
Dizziness, fatigue, hypotension, syncope, palpitations, tachycardia and dyspnea, restlessness, paresthesia, tremors,myalgia, arthralgia, gastro-intestinal complaints (e.g. nausea, vomiting, diarrhea, constipation), weight gain, sweating,pollakisuria, skin and hypersensitivity reactions such as pruritus, urticaria, and rash have been observed rarely.
Very rarely leukocytoclastic vasculitis and photosensitization.
Felodipine treatment may lead to gingival hyperplasia and gingivitis in rare cases.
In individual cases, hepatic function disorders (elevated transaminases levels), exfoliative dermatitis, angioedema and fever were observed.
In individual cases erection disorders and gynecomastia have been reported.
The doctor or pharmacist should be informed if any adverse effects not described in this leaflet is experienced.

Precautions for use and warnings:
Felodipine should be used with caution in patients with:
- Conduction disorders, heart failure, tachycardia and haemodynamically relevant aortic and/or mitral valve stenosis
- Mild to moderate hepatic impairment, as the anti-hypertensive effect may be enhanced.
- If treatment with Felodipine is discontinued abruptly, a hypertensive crisis may occur in individual cases.

Use in children:
Felodipine should not be used in children because safety has not been established.

Use during pregnancy or breastfeeding:
Felodipine is contraindicated during the entire duration of pregnancy, as animal experiments have demonstrated fetal damage. Pregnancy must be excluded before starting treatment with Felodipine. Felodipine is excreted in breast milk. If the breast-feeding mother is taking therapeutic doses of Felodipine, a fully breastfed infant absorbs only a very low dose of the active substance with the breast milk.There exists no experience concerning the risk for the infant.

Effects on ability to drive and use machines:
Treatment of essential hypertension with Felodipine requires regular medical monitoring. Individually different reactions may alter alertness to such an extent that the ability to actively participate in road traffic, operate machines or work without a firm support is impaired. This applies especially at the start of therapy, when increasing the dose, switching medications or using alcohol at the same time.

Interaction with other drugs and other forms of interaction:
The blood pressure lowering effect of Felodipine may be increased by other blood pressure lowering drugs and by certain (tricyclic) antidepressants. The breakdown of Felodipine involves a certain enzyme system in the liver (cytochrome P450 3A4). Concurrently administered drugs interfere with this enzyme system may therefore interact with Felodipine to produce:
− Increased blood levels of Felodipine when medicinal products that contain such drugs as cimetidine, erythromycin, itraconazole or ketoconazole are used at the same time. Grapefruit, which contains enzyme-inhibiting flavonoids, can also increase the plasma level of Felodipine.
− Reduced blood levels of Felodipine when medicinal products that contain such drugs as carbamazepine, phenytoin or barbiturates are used at the same time. Please bear in mind that these precautions may also apply to recently used medicines.

Contraindications:
Felodipine must not be taken by patients with any of the following conditions:
− Hypersensitivity to Felodipine or to any of the excipients.
− Stroke within the last six months.
− Cardiovascular shock.
− Valvular heart disease (higher-grade aortic or mitral stenosis).
− Heart muscle disease with narrowing of the cardiac cavity (hypertropic obstructive cardiomyopathy).
− Unstable angina pectoris.
− Acute myocardial infarction (within the last 8 weeks).
− Higher-grade disturbances of impulse conduction from the atria to the ventricles of the heart (second- and third-degree AV block).
− Congestive heart failure.
− Severe impairment of kidney function (renal insufficiency, GFR < 30 ml/min, creatinine > 1.8 mg/dl).
− Severe impairment of liver function.
− Pregnancy.

Dosage and administration:
Unless prescribed otherwise, the following dosage regimen is recommended:
Treatment should always be started with 5 mg of Felodipine (equivalent to 2 Felodipine, 2.5 mg tablet) once daily. Lower strengths of this drug are available to achieve this starting dose. Dosage may be increased to 10 mg of Felodipine (equivalent to 4 Felodipine 2.5 mg or 2 Felodipine 5 mg tablets) once daily.
At least 2 weeks should have elapsed before dosage is increased.
The maximum dose is 10 mg or as prescribed by the physician.

Elderly patients:
Elderly patients in particular are recommended a starting dose of 2.5 mg of Felodipine once daily. Dose increase should be made with particular caution.

Patients with liver function impairment:
Patients with mild-to-moderate impairment of liver function should start treatment with 2.5 mg of Felodipine once daily. Dose increases should be made only after critically weighing the effects and side effects of Felodipine.

Method of administration and duration of therapy:
The tablets should be taken in the morning with a sufficient amount of liquid (such as a glass of water, juice but no grapefruit juice). The tablets should be swallowed whole and neither chewed nor divided. The tablets should not be taken with a high-fat meal. If a dose is missed or less than the prescribed dose is taken, the dose should be taken as soon as remembered and therapy should be continued as prescribed on the following day. Never double the dose to make up for a missed dose. Treatment should not be interrupted or stopped prematurely without consulting the doctor beforehand. Abrupt discontinuation of the drug may produce life-threatening blood pressure increase (hypertensive crisis) in isolated instances.
The duration of therapy will be decided by the treating doctor.

Symptoms and management of overdosage:
The main manifestation that might be expected is excessive peripheral vasodilatation with marked hypotension and in rare cases bradycardia. The therapeutic measure should include elimination of the active ingredient and reconstitution of stable cardiovascular conditions. If hypotension occurs, symptomatic treatment should be provided; the patient should be placed supine with the legs elevated. In case of accompanying bradycardia, atropine (0.5 - 1.0 mg) should be given intravenously. Additional fluid administration should only be initiated if under hemodynamic control to avoid cardiac overload.
Sympathomimetic drugs with predominant effect on the α-adrenoreceptor may also be given.
Felodipine is dialysable to a minimal extent (approximately 9%).

Caution:
Foods, Drugs, Devices and Cosmetics Act prohibit dispensing without prescription. (List B')
Keep all medicines out of the reach of children.
For suspected adverse drug reaction, report to the FDA: www.fda.gov.ph

Storage:
Store at temperature not exceeding 25°C.

Availability:
Alu-PVC blister pack of 10's. Box of 100 tablets.

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