Durol™ CR

Carvedilol phosphate

PRESENTATION

Durol™ CR 10 capsule: Each controlled release capsule contains Carvedilol Phosphate INN 10 mg
Durol™ CR 20 capsule: Each controlled release capsule contains Carvedilol Phosphate INN 20 mg

PHARMACOLOGY

Carvedilol is a racemic mixture in which nonselective β-adrenoreceptor blocking activity is present in the S(-) enantiomer and α-adrenergic blocking activity is present in both R(+) and S(-) enantiomers at equal potency.

PHARMACOKINETIC

Carvedilol is rapidly and extensively absorbed following oral administration of immediate-release carvedilol tablets, with an absolute bioavailability of approximately 25% to 35% due to a significant degree of first-pass metabolism. Carvedilol Phosphate extended-release capsules have approximately 85% of the bioavailability of controlled-release carvedilol tablets. The absorption of carvedilol from Carvedilol Phosphate is slower and more prolonged compared to the immediate-release carvedilol tablet with peak concentrations achieved approximately 5 hours after administration.

Carvedilol is more than 98% bound to plasma proteins, primarily with albumin.

Carvedilol is extensively metabolized. Less than 2% of the dose was excreted unchanged in the urine. The metabolites of carvedilol are excreted primarily via the bile into the feces.

Carvedilol undergoes stereoselective first-pass metabolism with plasma levels of R(+)-carvedilol approximately 2 to 3 times higher than S(-)-carvedilol following oral administration in healthy subjects. The mean apparent terminal elimination half-lives for R(+)-carvedilol range from 5 to 9 hours compared with 7 to 11 hours for the S(-)-enantiomer.

INDICATIONS AND USAGE

Congestive Heart Failure: Carvedilol is indicated for the treatment of mild or moderate heart failure to reduce the progression of disease as evidenced by cardiovascular death, cardiovascular hospitalization, or the need to adjust other heart failure medications. Carvedilol may be used in patients unable to tolerate an ACE inhibitor. Carvedilol may be used in patients who are or are not receiving digitalis, hydralazine or nitrate therapy.

Hypertension: Carvedilol can be used alone or in combination with other antihypertensive agents especially with thiazide type diuretics.

Myocardial Infarction: Carvedilol is indicated to reduce cardiovascular mortality in clinically stable patients who have survived the acute phase of a myocardial infarction and have a left ventricular ejection fraction of 40%.

DOSAGE & ADMINISTRATION

Heart failure: The recommended starting dose of Carvedilol Phosphate is 10 mg once daily for 2 weeks. Patients who tolerate a dose of 10 mg once daily may have their dose increased to 20, 40, and 80 mg over successive intervals of at least 2 weeks. Patients should be maintained on lower doses if higher doses are not tolerated.

Myocardial infarction: It is recommended that Carvedilol Phosphate be started at 20 mg once daily and increased after 3 to 10 days, based on tolerability to 40 mg once daily, then again to the target dose of 80 mg once daily

Hypertension: The recommended starting dose of Carvedilol Phosphate is 20 mg once daily, the dose should be maintained for 7 to 14 days and then increased to 40 mg once daily if needed .This dose should also be maintained for 7 to 14 days and can then be adjusted upward to 80 mg once daily if tolerated and needed.

CONTRAINDICATION

Carvedilol is contraindicated in patients with severe chronic cardiac failure requiring intravenous inotropic therapy, bronchial asthma or related bronchospastic conditions, second or third-degree AV block, sick sinus syndrome (unless a permanent pacemaker is in place), cardiogenic shock, or severe bradycardia. Use of carvedilol in patients with clinically manifested hepatic impairment is not recommended. Carvedilol is contraindicated in patients with hypersensitivity to the drug.

ADVERSE EFFECTS

Most adverse events reported were of mild to moderate. These are postural hypotension, dizziness, headache, fatigue, gastro-intestinal disturbances, bradycardia, occasionally diminished peripheral circulation, peripheral oedema and painful extremities, dry mouth, dry eyes, eye irritation or disturbed vision, impotence, disturbances of micturition, influenza like symptoms, rarely angina. AV block, allergic skin reactions, exacerbation of psoriasis, nasal stuffiness, wheezing, depressed mood, sleep disturbances, paraesthesia, changes in liver enzymes, thrombocytopenia, leucopenia also reported.

PRECAUTION

Carvedilol may cause dizziness, lightheadedness, or fainting. Dizziness, fainting may occur, especially when person get up from a lying or sitting position suddenly.

Before having any kind of surgery (including dental surgery) or emergency treatment, medical doctor or dentist should be informed.

USE IN PREGNANCY AND LACTATION

Pregnancy Category C. There is no evidence from animal studies that carvedilol has any teratogenic effects. The relevance of these findings for humans is uncertain. Animal studies have showed that carvedilol crosses the placental barrier and is excreted in breast milk and therefore the possible consequences of alpha and beta blockade in the human foetus and neonate should be borne in mind. Carvedilol is therefore not recommended for use in pregnancy or in breast-feeding mothers.

USE IN PEDIATRIC PATIENT

The safety and efficacy of carvedilol in paediatric patients have not been established.

DRUG INTERACTION

Drug interactions have been seen with co-administration of carvedilol and digoxin, resulting in an increased bioavailability of digoxin. This increase is not clinically significant and does not correlate with pharmacologic response. Pharmacokinetics studies demonstrated a lack of drug interaction between carvedilol and hydrochlorothiazide, cimetidine, torsemide and warfarin.

STORAGE CONDITION

Store in a cool and dry place. Protect from light and moisture.

HOW SUPPLIED

Durol™ CR 10 capsule: Each box contains 30 capsules in alu-alu blister pack.
Durol™ CR 20 capsule: Each box contains 30 capsules in alu-alu blister pack.

Manufactured by :

SQUARE
PHARMACEUTICALS LTD.
BANGLADESH

TM - Trade Mark

Revision No.:00