Monocor
(Bisoprolol Fumarate) USP

Tablets
5mg / 10mg

مونوکور
(بیسوپرولول فیومریٹ) یو ایس پی

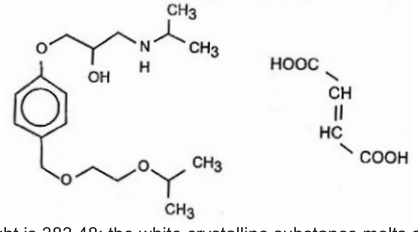
ٹیبلیٹس
5/10 ملی گرام

Side A

B1-Selective Beta-Blocker

COMPOSITION:
Monocor 5mg:
Each film coated tablet contains:
Bisoprolol Fumarate (USP).....5mg
Monocor 10mg:
Each film coated tablet contains:
Bisoprolol Fumarate (USP).....10mg

DESCRIPTION:
Bisoprolol Fumarate is the INN for (±)-1-[[alpha-(2-isopropoxyethoxy)-p-tolyl]oxy]-3-(isopropylamino)-2-propanol Fumarate. It is a recemate and as a derivative of phenoxyaminopropanol, it belongs to the class of therapeutic substances which are known as the Beta-blockers. The structural formula is as follows.



The molecular weight is 383.48: the white crystalline substance melts at 101°C. Bisoprolol Fumarate is very freely soluble in water and methanol and freely soluble in ethanol and chloroform. Bisoprolol is less lipophilic than propranolol but more lipophilic than atenolol. This middle position is the determinant factor for the virtually ideal pharmacokinetic profile of bisoprolol.

INDICATIONS:
High blood pressure (hypertension)
Coronary heart disease (angina pectoris)
Stable chronic moderate to severe heart failure (in addition to ACE inhibitors and diuretics.)

CONTRAINDICATIONS:
Monocor 5mg and Monocor 10mg must not be used in cases of acute heart failure or episodes of heart failure de-compensation requiring I.V. therapy with inotropic drugs. Cardiogenic Shock, second and third degree AV block (without pacemaker), sick sinus syndrome, sinoatrial block. Bradycardia with less than 60 beats /min before the start of therapy, extremely low blood pressure or hypotension (systolic blood pressure less than 100 mmHg). Bronchial asthma and advanced stages of peripheral circulatory disturbances, (Raynaud's syndrome). In cases of adrenal tumor (pheochromocytoma). Hypersensitivity to Bisoprolol and metabolic acidosis.

Note:
Precaution is warranted in diabetic patients with greatly fluctuating blood sugar values, during prolonged periods of fasting.

ADVERSE REACTIONS:
Particularly at the start of treatment tiredness, dizziness, slight headache, perspiration sleep disturbance, vivid dreams and depressive moods may occur. These symptoms are usually less severe in nature, generally recede within 1-2 weeks after the start of treatment. In rare cases, gastrointestinal disturbances (diarrhoea, constipation, nausea abdominal pain) and skin reactions (e.g. erythema. Pruritus) may occur. Occasionally a marked decrease in blood pressure, slow pulse rate or a disturbance of AV condition are observed.

Treatment can occasionally lead to tingling and a sensation of coldness in the extremities and in rare cases to muscle weakness, muscle cramp and reduced lacrimation (to be taken into account when contact lenses are worn). In patients suffering from intermittent claudication and Raynaud's phenomenon at the start of therapy complaints might become aggravated, and myocardial failure might intensify. An increase in airway resistance (difficulties in breathing in patients tending towards bronchospastic reactions, e.g. with asthmoid bronchitis) may occur in rare cases.

In elderly patients concurrently suffering from diabetes, glucose tolerance might be impaired. Signs of low blood-suger levels (e.g rapid heart rate) may be masked.

MEASURES TO BE TAKEN UPON OVERDOSAGE:
In case of overdosage or a precarious drop in pulse rate and/or blood pressure, treatment with Monocor 5mg and Monocor 10mg must be discontinued. If necessary, the following antidotes should be administered alone or consecutively.

Atropine intravenous 0.5 - 2.0mg
Orciprenaline intravenous until it takes effect.
Also glucagon may be given at a dose level of 1-5 (10)mg

WARNINGS:
Due to the blood-pressure reducing effect of Monocor 5mg and Monocor 10mg the ability to drive or to operate machinery may be impaired as a result of reactions to the drug varying from individual to individual. This is particularly the case at the start of treatment and with a change of medication as well as upon interaction with alcohol. Specific investigations have shown, however, that there is no fear of reactivity being directly impaired by Monocor 5mg and Monocor 10mg.

As there is a possibility of bradycardia, hypotension and hypoglycemia occurring in neonates, treatment with Monocor 5mg and Monocor 10mg should be terminated 72 hours prior to the expected date of birth. If this is not possible the neonates should be carefully monitored for 48-72 hours after delivery.

Side B

DRUG INTERACTIONS:
Monocor 5mg and Monocor 10mg may potentiate the effect of other antihypertensive drugs, currently administered. Concomitant therapy of Monocor 5mg and Monocor 10mg and reserpine, a-methyldopa, clonidine and guanfacine may cause a considerable decrease in heart rate.
In concomitant treatment with clonidine, clonidine should not be discontinued unless administration of Monocor 5mg and Monocor 10mg has been terminated for a few days.

The concurrent use of nifedipine may potentiate the antihypertensive effect of Monocor 5mg and Monocor 10mg.

In concurrent use of Monocor 5mg and Monocor 10mg and calcium antagonists of the verapamil and diltiazem type of other antiarrhythmic agents, careful monitoring of the patient is indicated as this can cause hypotension, bradycardia and other condition of arrhythmia. The intravenous administration of calcium antagonists and antiarrhythmic agent is therefore not recommendable during treatment with Monocor 5mg and Monocor 10mg. The concurrent use of Monocor 5mg and Monocor 10mg and refampicin can slightly reduce the half-life of Monocor 5mg and Monocor 10mg. An increase in dose is generally not necessary.

The concurrent use of Monocor 5mg and Monocor 10mg and insulin or oral blood-sugar reducing drugs may potentiate the effects of the latter. The symptoms of hypoglycemia (in particular-tachycardia) are masked or mitigated. Blood-sugar level should be monitored regularly.
As cardiac output may be impaired under anesthesia, prior to an operation the anesthetist should be informed if the patient is being treated with Monocor 5mg and Monocor 10mg.

DOSAGE:
(A) Hypertension and coronary heart disease:
Unless otherwise prescribed, one tablet of Monocor 5mg and Monocor 10mg once daily. A dose of Bisoprolol 20mg (2 tablets of Monocor 10mg once daily) is rarely necessary.

The dose level should be determined for each individual case primarily in accordance with pulse rate and success of treatment.

B) Chronic heart failure:
The treatment with Monocor in chronic heart failure is to be started with a gradual up-titration according to the following steps:

- Bisoprolol 1.25mg once daily for 1 week, if well tolerated increase to
- Bisoprolol 2.5mg once daily for a further week, if well tolerated increase to
- Bisoprolol 3.75mg once daily for further week, if well tolerated increase to
- Bisoprolol 5mg once daily for the 4 following weeks, if well tolerated increase to
- Bisoprolol 7.5mg once daily for the 4 following weeks, if well tolerated increase to
- Bisoprolol 10mg once daily for maintenance therapy.

The treatment should be started with a small dose, the dose should be slowly and progressively up-titrated according to tolerance up to the maximum recommended dose of 10mg.

Dose adjustment is not required in hepatic or renal dysfunctions of mild to moderate severity. No dose adjustment is required in elderly patients as well. The dose of 10mg of bisoprolol should not be exceeded in patients with final stage renal failure (creatinine clearance <20ml / min.) and in patients with severe hepatic dysfunction.

MODE OF ADMINISTRATION:
Monocor 5mg and Monocor 10mg tablets should be swallowed whole with some liquid. It is recommended to take Monocor 5mg and Monocor 10mg in the morning on empty stomach or with breakfast.

DURATION OF TREATMENT:
Generally treatment with Monocor 5mg and Monocor 10mg is a long term therapy. The dosage of Monocor in hypertension, coronary heart disease and chronic heart failure must not be altered without the doctor's directions. Therapy with Monocor 5mg or Monocor 10mg must not be discontinued abruptly (unless absolutely necessary) but must fundamentally be discontinued on a gradual basis. Particular attention must be paid to patients suffering from coronary heart disease and chronic heart failure.

IMPORTANT NOTE FOR PHYSICIANS:
Hypertension and coronary heart disease:
While starting therapy with Monocor (Bisoprolol) in patients with hypertension and coronary heart disease, some side effects like tiredness, fatigue or dizziness occur particularly at the start of the therapy and often disappear within 1 to 2 weeks, patients should be advised about this before the start of the therapy.
Chronic heart failure:
Patients may become more symptomatic for 4 to 10 weeks before any improvement will be appreciated. Transient worsening of heart failure (e.g. fluid retention, fatigue), hypotension or bradycardia may occur during up-titration of the dose or thereafter.

STORAGE:
Store below 30°C. Protect from heat, light and moisture.

SAFETY PRECAUTIONS:
Drugs should be kept in a safe place out of the reach of children.

PRESENTATIONS:
Monocor 5mg: Pack of 14 tablets.
Monocor 10mg: Pack of 14 tablets.

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Manufactured by:
STANDPHARM PAKISTAN (PVT) LTD
20 Km Ferozepur Road, Lahore, Pakistan.