Biscot Tablets

بائیسکاٹ ٹیبلٹس

COMPOSITION: *Each film coated tablet contains:* Bisoprolol Fumarate USP.....2.5, 5 & 10 mg, respectively

DESCRIPTION: Bisoprolol is a drug belonging to the group of beta blockers, a class of medicines used primarily in cardiovascular diseases. More specifically, it is a selective type beta1 adrenergic receptor blocker. Bisoprolol is cardioprotective because it selectively and competitively blocks catecholamine (adrenaline) stimulation of beta1 adrenergic receptors (adrenoreceptors), which are mainly found in the heart muscle cells and heart conduction tissue (cardio specific) but also found in juxtaglomerular cells in the kidney. Normally adrenaline and noradrenaline stimulation of the beta1 adrenoreceptor activates a signaling cascade (Gs protein and cAMP) which ultimately lead to increased contractility and increased heart rate of the heart muscle and heart pacemaker respectively. Bisoprolol competitively blocks the activation of this cascade and therefore decreases the adrenergic tone/stimulation of the heart muscle and pacemaker cells. Decreased adrenergic tone shows less contractility of heart muscle and lowered heart rate of heart pacemaker. These are the favorable factors that are decreased and treat hypertension, heart attacks and ischemia. The decreases in contractility and heart rate are beneficial for hypertension because they reduce blood pressure but for preventive measures for heart attacks and cardiac ischemia these decreases in heart rate and contraction decrease the heart's demand for oxygen and nutrients; primary treatment post heart attacks is to prevent recurrence of the infarction.

PHARMACOLOGY: Bisoprolol is a highly beta1-selective beta-adrenoceptor antagonist with low beta2-receptor affinity. It has neither intrinsic sympathomimetic activity nor membrane-stabilising properties. It reduces blood pressure and by blockade of the cardiac beta1-receptors, it reduces cardiac action and hence myocardial oxygen demand. The mechanism of action of beta1-adrenergic blocking agents in hypertension is not clear but it is known that Bisoprolol reduces the heart rate and depresses plasma renin levels. Bisoprolol is rapidly absorbed after oral administration in man and excreted predominantly via the urine as unaltered substance and metabolites. In man 50% of a dose is metabolised in the liver while the other 50% is eliminated unchanged via the kidneys. None of the metabolites found in man has beta1-receptor blocking action. In man, the plasma elimination half-life is 10-12 hours, resulting in duration of action of 24 hours. Because of its moderate hepatic metabolism, it is subject only to a very small hepatic first pass metabolism. Therefore, Bisoprolol displays a high bioavailability of 90% after an oral dose.

INDICATIONS: Biscot Tablets are indicated in the management of mild to moderate hypertension and angina pectoris.

CONTRAINDICATIONS: Hypersensitivity to Bisoprolol. Particular caution should be exercised with patients suffering from the following: Asthma, bronchitis, chronic respiratory diseases, second and third degree heart block, bradycardia less than 50 beats per minute, peripheral vascular disease and Raynaud's phenomenon. Uncontrolled cardiac failure excluding that due to hypertrophic obstructive cardiomyopathy. Patients with metabolic acidosis and sinus bradycardia.

POSSIBLE ADVERSE EFFECTS: These include lassitude, dizziness, mild headache, perspiration, bradycardia, sleep disorders, restlessness, cold extremities, nausea, vomiting, diarrhea and skin rash. Constipation, hypotension, paradoxical hypertension, depression, mass gain, paresthesia, transient hearing loss, heart block, hallucinations, disturbances of vision, blood disorders, fluid retention, muscle cramps, allergic reactions, metabolic disturbances, alopecia, myopathies and stomatitis may occur. Overt psychosis has been reported with other beta-blockers. Exacerbation of peripheral vascular disease, or the development of Raynaud's phenomenon (due to the unopposed arteriolar alpha-sympathetic activation), hypoglycemia, skeletal muscle weakness and gastro-intestinal disturbances may occur during treatment with beta-blockers. Severe peripheral vascular disease and even peripheral gangrene may be precipitated.

DRUG INTERACTIONS: It can be dangerous to administer Bisoprolol concomitantly with the following medicines: Hypoglycaemic agents, phenothiazines and various antiarrhythmic agents. N.B. - Such medicine interactions can have life-threatening consequences. It may enhance the effects of hypoglycemic agents in patients with diabetes mellitus as well as the effects of myocardial depressants such as lignocaine, procainamide and quinidine. The effects may be antagonised by beta-adrenoceptor stimulating agents (e.g. isoprenaline). The hypotensive effects may be dangerously reversed by alpha-adrenoceptor stimulants. The vasoconstrictor effects may be dangerously enhanced by alpha-adrenoceptor stimulants. The effects may be enhanced by adrenergic neuron blocking agents such as guanethidine and reserpine. The anesthetist should be informed of Bisoprolol therapy prior to any operation. The half-life of Bisoprolol can be slightly shortened by the simultaneous administration of rifampicin. An increase in the dose is generally unnecessary. The pharmacokinetics of Bisoprolol are not significantly influenced by cimetidine.

WARNINGS: If Bisoprolol is to be withdrawn prior to surgery, at least 48 hours should be allowed to elapse between the last dose and anesthesia. If Bisoprolol treatment is to be continued during surgery, care should be taken when using anesthetic agents such as ether, cyclopropane and trichloroethylene. Vagal dominance, if it occurs, may be corrected with atropine (1-2 mg i.v.). In the perioperative period it is generally unwise to reduce the dosage to which the patient is accustomed, as there may be danger of aggravation of angina pectoris or of hypertension. A patient's normal tachycardia response to hypovolaemia or blood loss may be obscured during or after surgery. Particular caution should be taken in this regard. In patients suffering from ischemic heart disease, treatment should not be discontinued abruptly. Caution should be taken in prescribing Bisoprolol with Class 1 antidysrhythmic agents such as disopyramide, myocardial depressants and inhibitors of AV conduction such as calcium antagonists. Use with caution in combination with verapamil in patients with impaired ventricular function. This combination should not be given to patients with conduction abnormalities. Neither drug should be administered intravenously within 48 hours of discontinuing the other. The intravenous administration of calcium antagonists and antiarrhythmic agents is not recommended during Bisoprolol therapy. Caution should be exercised when transferring a patient from clonidine. The withdrawal of clonidine may result in the release of large amounts of catecholamines, which may give rise to a hypertensive crisis. If beta-blockers are administered in these circumstances, the unopposed alpha receptor stimulation may potentiate this effect. If a beta-blocker and clonidine are given concurrently, the clonidine should not be discontinued until several days after the withdrawal of the beta-blocker, as severe rebound hypertension may occur. Bisoprolol modifies the tachycardia of hypoglycemia. The dosage of Bisoprolol should be adjusted in cases of severe renal function impairment. *Pregnancy:* Administration to pregnant mothers shortly before giving birth or during labour result in the newborn infant being born hypotonic, collapsed or hypoglycemic.

DOSAGE & ADMINISTRATION: *Hypertension & coronary heart disease: Adults:* For both indications the dosage is Biscot 5 mg once daily. If necessary, the dose may be increased to Biscot 10 mg once daily. The maximum recommended dose is Biscot 20 mg once daily. In all cases dosage is adjusted individually, in particular according to the pulse rate and therapeutic success. *Treatment of stable chronic heart failure:* Standard treatment of CHF consists of an ACE inhibitor (or an angiotensin receptor blocker in case of intolerance to ACE inhibitors), a beta blocker, diuretics and when appropriate cardiac glycosides. Patients should be stable (without acute failure) when Bisoprolo l treatment is initiated. It is recommended that the treating physician be experienced in the management of chronic heart failure. *Titration phase:* The treatment of stable chronic heart failure with Bisoprolol requires a titration phase. The recommended starting dose is 1.25 mg (half tablet of Biscot 2.5 mg) once daily. Depending on individual tolerance the dose is increased to 2.5 mg, 3.75 mg (one & half tablet of Biscot 2.5 mg), 5 mg, 7.5 mg (1 tablet of Biscot 5 mg & 1 tablet of Biscot 2.5 mg) and 10 mg once daily in intervals of 2 weeks or longer. If a dose increase is not well tolerated treatment may be maintained at a lower dose. The maximum recommended dose is Biscot 10 mg once daily.

SPECIAL INSTRUCTIONS TO THE PHYSICIAN: Abrupt discontinuation of therapy may cause exacerbation of angina pectoris in patients suffering from ischemic heart disease. Discontinuation of therapy should be gradual and patients should be advised to limit the extent of their physical activity during the period in which the medicine is being discontinued. Bronchoconstriction may occur in patients suffering from asthma, bronchitis and other chronic pulmonary diseases. Since Bisoprolol is a highly selective beta1-adrenoceptor blocking agent, it may be used with caution in patients with chronic obstructive airway disease. However, in some asthmatic patients, an increase in airway resistance may occur. This bronchospasm can usually be reversed by commonly-used bronchodilators. Congestive cardiac failure and marked bradycardia may occur. Bisoprolol may mask the symptoms of hyperthyroidism. It should be used with caution in patients with hypoglycemia.

STORAGE/PRECAUTIONS: Store in cool, dry and dark place between 20-25 °C. Keep all medicines out of the children's reach.

PRESENTATION: Biscot 2.5, 5 & 10 mg film coated tablets are available in a packing containing 14 tablets, respectively.

خوراک: ڈاکٹر کی ہدایت کے مطابق۔

احتیاط: روشنی، نمی اور گرمی سے بچائیں۔ 20 سے 25 ڈگری سینٹی گریڈ کے درمیان محفوظ کریں۔ تمام ادویات بچوں کی پہنچ سے دور رکھیں۔
مستند ڈاکٹر کے نسخہ پر فروخت اور استعمال کریں۔

Complete Medical Information available only for doctors on request.

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