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TELMILOK 80 TABLET

Summary of Product Characteristics

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Summary of Product Characteristics

1. Name of Medicinal Product

Telmilok 80 Tablet

2. Qualitative and Quantitative Composition

Each Tablet contains Telmisartan EP 80 mg.

For a full list of excipients, see section 6.1

3. Pharmaceutical Form

Tablet

A white to off-white, caplet shaped, biconvex tablets plain on both sides.

4. Clinical Particulars

4.1 Therapeutic Indication

- Treatment of Hypertension, Lowering blood pressure reduces the risk of cardiovascular events, primarily strokes and myocardial infarctions.
- Cardiovascular (CV) Risk reduction in patients unable to take ACE inhibitors.

4.2 Posology and Administration

Recommended Dose:


For Hypertension the dose is 40 mg Once daily and maximum dose is 80 mg once daily. For Cardiovascular (CV) Risk reduction dose is 80 mg Once daily.

4.3 Contraindications

Aliskiren, ACE Inhibitors.

4.4 Special Warnings and Precautions for Use

Hypotension- In some patients symptomatic hypotension may occur after initiation of therapy with Telmisartan. **Hyperkalemia-** Hyperkalemia may also occur in some patients with advanced renal impairment, heart failure, on renal replacement therapy, or on potassium supplements, potassium-sparing diuretics, potassium-containing salt substitutes or other drugs that increase potassium levels. **Impaired Hepatic Function** In patients with biliary obstructive disorders or hepatic insufficiency can be expected to have reduced clearance. Initiate Telmisartan at low doses and titrate slowly in these patients.

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4.5 Interaction with Other Medicinal Products and Other Forms of Interaction

Digoxin: When co-administered with digoxin, median increases in digoxin peak plasma concentration were observed. Non-Steroidal Anti-Inflammatory Agents including Selective

COX-2 Inhibitors: In patients who are elderly, volume-depleted (including those on diuretic therapy), or with compromised renal function, co-administration of NSAIDs, including selective COX-2 inhibitors, with angiotensin II receptor antagonists, including Telmisartan, may result in deterioration of renal function. These effects are usually reversible. Monitor renal function periodically in patients receiving Telmisartan and NSAID therapy. The antihypertensive effect of angiotensin II receptor antagonists, including Telmisartan may be attenuated by NSAIDs including selective COX-2 inhibitors.

4.6 Pregnancy and Lactation

Pregnancy- Telmisartan can cause fetal harm when administered to a pregnant woman.

Lactation- There is no information regarding the presence of Telmisartan in human milk.


Nursing woman would not to breastfeed during treatment with Telmisartan.

4.7 Effects on ability to drive and use machines

When driving vehicles or operating machinery it should be taken into account that dizziness or drowsiness may occasionally occur when taking antihypertensive therapy such as Telmisartan.

4.8 Undesirable Effects

Back pain, Sinusitis, Diarrhea, Pharyngitis, influenza-like symptoms, dyspepsia, myalgia, urinary tract infection, abdominal pain, headache, dizziness, fatigue, coughing, nausea, peripheral edema, increased sweating, flushing, allergy, fever, leg pain, malaise, palpitation, angina pectoris, tachycardia, abnormal ECG, insomnia, migraine, vertigo, paresthesia, hypoesthesia, flatulence.

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4.9 Overdose

There is limited information available with regard to overdose in humans.

Symptoms: The most prominent manifestations of telmisartan overdose were hypotension and tachycardia; bradycardia, dizziness, increase in serum creatinine, and acute renal failure have also been reported.

Treatment: Telmisartan is not removed by haemodialysis. The patient should be closely monitored, and the treatment should be symptomatic and supportive. Management depends on the time since ingestion and the severity of the symptoms. Suggested measures include induction of emesis and / or gastric lavage. Activated charcoal may be useful in the treatment of overdose. Serum electrolytes and creatinine should be monitored frequently. If hypotension occurs, the patient should be placed in a supine position, with salt and volume replacement given quickly.

5 Pharmacological Properties


5.1 Pharmacodynamic Properties

Pharmacotherapeutic group: Angiotensin II Antagonists, plain, ATC Code: C09CA07.

Mechanism of action

Telmisartan is an orally active and specific angiotensin II receptor (type AT1) antagonist. Telmisartan displaces angiotensin II with very high affinity from its binding site at the AT1 receptor subtype, which is responsible for the known actions of angiotensin II. Telmisartan does not exhibit any partial agonist activity at the AT1 receptor. Telmisartan selectively binds the AT1 receptor. The binding is long-lasting. Telmisartan does not show affinity for other receptors, including AT2 and other less characterized AT receptors. The functional role of these receptors is not known, nor is the effect of their possible overstimulation by angiotensin II, whose levels are increased by telmisartan. Plasma aldosterone levels are decreased by telmisartan. Telmisartan does not inhibit human plasma renin or block ion channels. Telmisartan does not inhibit angiotensin converting enzyme (kininase II), the enzyme which also degrades bradykinin. Therefore it is not expected to potentiate bradykinin-mediated adverse events.

In human, an 80 mg dose of telmisartan almost completely inhibits the angiotensin II evoked blood pressure increase. The inhibitory effect is maintained over 24 hours and still measurable up to 48 hours.

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5.2 Pharmacokinetic Properties

Absorption

Absorption of telmisartan is rapid although the amount absorbed varies. The mean absolute bioavailability for telmisartan is about 50 %. When telmisartan is taken with food, the reduction in the area under the plasma concentration-time curve ($AUC_{0-\infty}$) of telmisartan varies from approximately 6 % (40 mg dose) to approximately 19 % (160 mg dose). By 3 hours after administration, plasma concentrations are similar whether telmisartan is taken fasting or with food.

Linearity/non-linearity

The small reduction in AUC is not expected to cause a reduction in the therapeutic efficacy. There is no linear relationship between doses and plasma levels. C_{max} and to a lesser extent AUC increase disproportionately at doses above 40 mg.

Distribution

Telmisartan is largely bound to plasma protein (>99.5 %), mainly albumin and alpha-1 acid glycoprotein. The mean steady state apparent volume of distribution (V_{dss}) is approximately 500 l.

Biotransformation

Telmisartan is metabolised by conjugation to the glucuronide of the parent compound. No pharmacological activity has been shown for the conjugate.


Elimination

Telmisartan is characterised by biexponential decay pharmacokinetics with a terminal elimination half-life of >20 hours. The maximum plasma concentration (C_{max}) and, to a smaller extent, the area under the plasma concentration-time curve (AUC), increase disproportionately with dose. There is no evidence of clinically relevant accumulation of telmisartan taken at the recommended dose. Plasma concentrations were higher in females than in males, without relevant influence on efficacy.

After oral (and intravenous) administration, telmisartan is nearly exclusively excreted with the faeces, mainly as unchanged compound. Cumulative urinary excretion is <1 % of dose. Total plasma clearance (Cl_{tot}) is high (approximately 1,000 ml/min) compared with hepatic blood flow (about 1,500 ml/min).

Special Populations

Paediatric population

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The pharmacokinetics of two doses of telmisartan were assessed as a secondary objective in hypertensive patients (n = 57) aged 6 to < 18 years after taking telmisartan 1 mg/kg or 2 mg/kg over a four-week treatment period. Pharmacokinetic objectives included the determination of the steady-state of telmisartan in children and adolescents, and investigation of age related differences. Although the study was too small for a meaningful assessment of the pharmacokinetics of children under 12 years of age, the results are generally consistent with the findings in adults and confirm the non-linearity of telmisartan, particularly for C_{max}.

Gender

Differences in plasma concentrations were observed, with C_{max} and AUC being approximately 3- and 2-fold higher, respectively, in females compared to males.

Elderly

The pharmacokinetics of telmisartan do not differ between the elderly and those younger than 65 years.

Renal impairment

In patients with mild to moderate and severe renal impairment, doubling of plasma concentrations was observed. However, lower plasma concentrations were observed in patients with renal insufficiency undergoing dialysis. Telmisartan is highly bound to plasma protein in renal-insufficient patients and cannot be removed by dialysis. The elimination half-life is not changed in patients with renal impairment.


Hepatic impairment

Pharmacokinetic studies in patients with hepatic impairment showed an increase in absolute bioavailability up to nearly 100 %.

The elimination half-life is not changed in patients with hepatic impairment.

5.3 Preclinical Safety Data

In preclinical safety studies, doses producing exposure comparable to that in the clinical therapeutic range caused reduced red cell parameters (erythrocytes, haemoglobin, haematocrit), changes in renal haemodynamics (increased blood urea nitrogen and creatinine), as well as increased serum potassium in normotensive animals. In dogs, renal tubular dilation and atrophy were observed. Gastric mucosal injury (erosion, ulcers or inflammation) also was noted in rats and dogs. These pharmacologically-mediated undesirable effects, known from preclinical studies with both angiotensin converting enzyme inhibitors and angiotensin II receptor antagonists, were prevented by oral sodium chloride solution supplementation.

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6	Pharmaceutical particulars
6.1	List of excipients
	Mannitol (Pearlitol 200 SD) Povidone Meglumine Sodium Hydroxide Magnesium Stearate
6.2	Incompatibilities
	Not Applicable
6.3	Shelf life
	2 Years (24 Months)
6.4	Special Precautions for Storage
	Store below 30°C. Protect from light and moisture. Keep the Medicine out of reach of children.
6.5	Packaging
	Each box contains 30 Tablets in blister pack.
6.6	Special Precautions for Disposal and Other Handling
	No special requirements,
7.0	Legal category
	POM (Prescription Only Medicine)
8.0	Manufacturer
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