FENATUS-M

Each tablet contains Fexofenadine 120 mg and Montelukast 10 mg

Dosage Form and Strength

Dosage Form: Tablets.

Dosage Strength: Fexofenadine 120 mg and Montelukast 10 mg per tablet.

DESCRIPTION

Montelukast sodium is a selective and orally active leukotriene receptor antagonist that inhibits the cysteinyl leukotriene (CysLT1), receptor.

Fexofenadine hydrochloride, the pharmacologically active metabolite of terfenadine, is a potent and selective antagonist of peripheral H1-receptors.

Recent studies have demonstrated that Allergic Rhinitis [AR] when treated concomitantly with an antileukotriene (montelukast) and an antihistamine (fexofenadine), shows significantly better symptom relief compared with the modest improvement of rhinitis symptoms with each of the treatments alone.

PHARMACOLOGY

As **FENATUS-M** is a combination of Montelukast and Fexofenadine; the pharmacological properties of both the molecules are given separately:

Pharmacodynamics

MONTELUKAST

Montelukast causes inhibition of airway cysteinyl leukotriene receptors as demonstrated by the ability to inhibit bronchoconstriction due to inhaled LTD4 in asthmatics. Doses as low as 5 mg cause substantial blockage of LTD4 -induced bronchoconstriction.

FEXOFENADINE

Fexofenadine hydrochloride is a non-sedating H1 antihistamine. Fexofenadine is a pharmacologically active metabolite of terfenadine.

In seasonal allergic rhinitis patients who were given fexofenadine hydrochloride up to 240 mg twice daily for 2 weeks, no significant differences in the QTc intervals were observed when compared to placebo. Also, no significant change in the QTc intervals was observed in healthy subjects given fexofenadine hydrochloride up to 60 mg twice daily for 6 months, 400 mg twice daily for 6.5 days, and 240 mg once daily for 1 year, when compared to placebo.

Pharmacokinetics

MONTELUKAST

Absorption

After administration of a 10-mg tablet to fasted adults, the mean peak montelukast plasma concentration (Cmax) is achieved in 3 to 4 hours (Tmax). The mean oral bioavailability is 64%. The oral bioavailability and Cmax are not influenced by a standard meal in the morning.

Distribution

Montelukast is more than 99% bound to plasma proteins. The steady-state volume of distribution of montelukast averages 8 to 11 liters.

Metabolism

Montelukast is extensively metabolized. In studies with therapeutic doses, plasma concentrations of metabolites of montelukast are undetectable at steady state in adults and pediatric patients.

Elimination

The plasma clearance of montelukast averages 45 mL/min in healthy adults. Following an oral dose of radiolabeled montelukast, 86% of the radioactivity was recovered in 5-day fecal collections and <0.2% was recovered in urines. Coupled with estimates of montelukast oral bioavailability, this indicates that montelukast and its metabolites are excreted almost exclusively via the bile.

In several studies, the mean plasma half- life of montelukast ranged from 2.7 to 5.5 hours in healthy young adults. The pharmacokinetics of montelukast are nearly linear for oral doses up to 50 mg. During once daily dosing with 10-mg montelukast, there is little accumulation of the parent drug in plasma (~14%).

FEXOFENADINE

The single- and multiple-dose pharmacokinetics of fexofenadine are linear for oral doses up to 120 mg b.i.d. A dose of 240 mg b.i.d. produced a slightly greater than proportional increase (8.8%) in the steady-state area under the curve (AUC), indicating that fexofenadine pharmacokinetics are practically linear at doses between 40 mg and 240 mg taken daily.

Absorption

Fexofenadine hydrochloride is rapidly absorbed into the body following oral administration, with the Tmax occurring at approximately 1–3 hours post-dose. The mean Cmax value was approximately 427 ng/ml following the administration of a 120 mg dose once daily.

Distribution

Fexofenadine is 60–70% plasma protein-bound.

Biotransformation

Fexofenadine undergoes negligible metabolism (hepatic or non-hepatic) as it was the only major compound identified in the urine and faeces of animals and humans. The

plasma concentration profiles of fexofenadine follow a bi-exponential decline, with a terminal elimination half-life ranging from 11 to 15 hours after multiple dosing.

Elimination

The major route of elimination is believed to be via biliary excretion, while up to 10% of the ingested dose is excreted unchanged through the urine.

INDICATIONS

FENATUS-M Tablets are indicated for:

- Allergic rhinitis
- Asthma
- Upper Respiratory Tract Infections

DOSAGE & ADMINISTRATION

Adults [>15years]: 1 FENATUS-M Tablet once daily