UCB reference No.: RXCE06E1645

Approved by UCB 16-Jul-2007

Clinical Study Summary

DEV/CCM/03019.2007

CT Registry ID#: NCT00542607
Study No.: A00324

These results are supplied for informational purposes only. Prescribing decisions should be made based on the approved package insert.

See Drug Details page of this website for approved drug label.

Based on Clinical Study Report document reference code: RRCE03E0602

Proprietary Drug Name	**INN**	**Therapeutic area and indication(s)**
Xyzal® Tablets	Levocetirizine dihydrochloride	Seasonal allergic rhinitis

Name of Sponsor/Company: UCB Pharma SA

Title of Study:
A randomized, double-blind, three way cross-over, placebo controlled trial to compare the efficacy and safety of levocetirizine 5 mg od (oral tablets) and fexofenadine 120 mg od (oral tablets) in reducing symptoms of seasonal allergic rhinitis in grass pollen sensitized adults exposed for 2 consecutive days during 4 and 6 hours respectively to this allergen in the Vienna Challenge Chamber.

Investigator(s) (number only): 1

Study Center(s) (number only): 1

Length of Study:
Date first patient enrolled: 23-Sep-2002
Date last patient completed: 07-Dec-2002

Phase of Development: Phase IV (therapeutic use study)

Abstract:
The primary objective was to show that the change from baseline of the mean Major Symptoms Complex (MSC) score over an interval [22-24] hours after medication intake (time interval 3) was greater after levocetirizine (LCTZ) than after fexofenadine (FEXO) treatment. MSC was defined as the sum of the individual rhinorrhea, sneezing, itchy nose and itchy eyes scores. Subjects were male or female, aged 18 to 55 years, suffering since ≥ 2 years from grass pollens allergic rhinitis proven by anamnesis, and with a severity requiring pharmacological therapy every year. Allergy to grass pollens had to be documented by a positive Radio Allergo Sorbent Test (RAST ≥ class 3 or ≥ 3.5 IU/mL) and/or a positive Skin Prick Test (allergen wheal ≥ 3 mm than the control wheal) performed within the year preceding inclusion in the study.
MSC score on first day in each period had to be < 3 before entering the Vienna Challenge Chamber (VCC), and ≥ 6 two hours after entering the VCC. Safety assessments included adverse event (AE) monitoring, vital signs, and Forced Expiratory Volume in 1 second (FEV1). Efficacy parameters were analyzed using an analysis of covariance model (ANCOVA) adapted for crossover designs with sequence of administration of the medications, period and medication considered as fixed effects and subjects within the sequences was considered as a random effect. Baseline score was included as covariate.

Number of Subjects:	**Intent-to-treat (ITT) (N=94)**
Planned, N:	100
Enrolled, N:	94
Completed, n (%):	85 (90.4)
Number of subjects Withdrawn, n (%):	9 (9.6)
Withdrawn due to Adverse Events, n (%):	4 (4.3)
Withdrawn for Other Reasons, n (%):	5 (5.3)

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Demography:	**Intent-to-treat (ITT) (N=94)**
Gender (Females/Males):	56/38
Age (years), mean (SD):	25.8 (4.5)
Race, n (%):	
Caucasian	94 (100)

Safety Outcomes:

- Summary of treatment emergent adverse events, deaths, other serious adverse events and certain other significant adverse events:

During the treatment period, 12 subjects (12.8%) experienced at least one treatment-emergent (TE)AE. The most frequently occurring AEs were respiratory, thoracic and mediastinal disorders (5.3%). All TEAEs reported were assessed as not related to the study medication. No deaths or serious (SAEs were reported during the study. Three subjects discontinued the study due to a treatment-emergent AE, 2 subjects after placebo (PBO) and 1 subject after LCTZ treatment. One subject discontinued the study due to a post-treatment AE after PBO treatment. No clinically relevant changes in vital signs and FEV1 were observed.

Treatment Emergent AEs	**PBO (N=91)**	**LCTZ 5 mg (N=87)**	**FEXO 120 mg (N=91)**
Subjects with at least one TEAE, n (%):	4 (4.4)	5 (5.7)	3 (3.3)
Subjects with TEAEs (by Primary System Organ Class)	*n (%) [n considered drug-related by the Investigator]*		
Gastrointestinal disorders	1 (1.1) [0]	1 (1.1) [0]	0
Infections and infestations	1 (1.1) [0]	0	1 (1.1) [0]
Nervous system disorders	1 (1.1) [0]	1 (1.1) [0]	1 (1.1) [0]
Reproductive system and breast disorders	0	1 (1.1) [0]	0
Respiratory, thoracic and mediastinal disorders	1 (1.1) [0]	2 (2.3) [0]	2 (2.3) [0]

Primary Outcomes:

The difference in mean change from baseline in MSC score between the two active treatments over time interval 3 was equal to -1.27 in favor of the LCTZ group with a 95% confidence interval (CI) estimated as [-1.87, -0.67]. The difference was highly statistically significant ($p < 0.001$).

MSC score over time interval 3	**PBO (N=90)**	**LCTZ 5 mg (N=86)**	**FEXO 120 mg (N=91)**
Mean change from baseline (SE)	-1.87 (0.26)	-5.10 (0.27)	-3.84 (0.26)
Difference versus PBO [95% CI] (p-value)		-3.23 [-3.83, -2.63] (< 0.001)	-1.96 [-2.56, -1.37] (< 0.001)
Difference versus FEXO [95% CI] (p-value)		-1.27 [-1.87, -0.67] (< 0.001)	

Publication Reference(s) based on the study: Horak et al. – Br J Clin Pharmacol 2005; 60: 24-31

Date of Report : 5-Jul-2007