Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense)*
Lat. Am. J. Pharm. **32** (10): 1522-7 (2013)

Regular article

Received: August 23, 2013
Accepted: October 11, 2013

A Pharmacokinetic Study on Carteolol Hydrochloride Matrix Sustained-release Pellets in Beagle Dogs

Lei LUO [1,2] #, He ZHANG [2] # & Yonghuang LUO [2] *

[1] *Department of Chemistry, University of Sheffield, UK, S3 7HF*
[2] *College of Pharmaceutical Science, Southwest University, China, 400715*

***SUMMARY*. This paper studied the pharmacokinetic characteristics of carteolol hydrochloride matrix sustained-release pellets and assessed their sustained-release characteristics and relative bioavailability in Beagle dogs. Two-period self-crossover test method was adopted in this study. Six Beagle dogs were randomly divided into two groups, to which carteolol hydrochloride matrix sustained-release pellets and conventional tablets were given separately by oral administration at a single dose of 15 mg. At certain time points after drug administration, the venous blood was collected from dogs in both groups for plasma separation, and the concentrations of carteolol hydrochloride in the plasma were measured by using HPLC coupling with a UV-vis detector. The pharmacokinetic parameters, C_{max}, AUC_{0-24}, T_{max} and $T_{1/2}$ and relative bioavailabilities were calculated using Winnonlin software. The time length maintained above the minimum effective plasma concentration of carteolol hydrochloride matrix sustained-release tablets were twice than conventional tablets.**

KEY WORDS: Carteolol hydrochloride, HPLC, Pharmacokinetics, Sustained-release pellets.

* Author to whom correspondence should be addressed. *E-mail:* luoyonghuang@126.com
\# These authors contributed equally to this work.

ISSN 0326-2383