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Stereospecific Dissolution of Inclusion Complexes of Amlodipine Base and its Besylate Enantiomers with Hydroxypropyl-β-Cyclodextrin

Jagan M SOMAGONI [1,2], Sathish DHARANI [1], Pavan K. PANAKANTI [1], Someshwar KOORELLI [1], Sarangapani MANDA [2] & Madhusudan Y. RAO [1]*

[1] *Centre for Biopharmaceutics and Pharmacokinetics, University College of Pharmaceutical Sciences, Kakatiya University, Warangal - 506 009 (A.P.) India.*
[2] *Department of Medicinal Chemistry, University College of Pharmaceutical Sciences, Kakatiya University, Warangal - 506 009 (A.P.) India.*

***SUMMARY*. The objective of this work was the preparation of inclusion complexes of amlodipine base and its besylate salt with hydroxy propyl-β-cyclodextrin (HPBC) to improve the dissolution and to investigate the stereospecific dissolution of amlodipine enantiomers. The prepared inclusion complexes were characterized by FTIR and DSC. Significant improvement in the dissolution was found with *S* and *R* enantiomers of amlodipine base where as no improvement was found with enantiomers of amlodipine besylate ($p > 0.05$) after complexation with HPBC. This indicates the formation of inclusion complexes with only enantiomers of amlodipine base ($p < 0.05$). No stereospecific dissolution was found with pure amlodipine besylate enantiomers. In case of physical mixing no inclusion complexes were formed even with enantiomers of amlodipine base ($p > 0.05$). Stereospecific dissolution was observed with pure enantiomers of amlodipine base when its inclusion complexes were prepared by solvent evaporation method with l:1 and 1:2 molar ratios but not with 1:3 molar ratio.**

KEY WORDS: Amlodipine enantiomers, Hydroxy propyl-β-cyclodextrin, Inclusion complex, Stereospecificity.

* Author to whom correspondence should be addressed. *E-mail:* yamsani123@gmail.com