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Sustained Release of Captopril From Matrix Tablet Using Methylcellulose in a New Derivative Form

Yasir ALI [1], Nisar-ur-RAHMAN [2]*, Muneeb A. IDREES [2],
Sabeeh MOHSIN [2], Saeed AHMED [1] & Irshad AHMED [1]

[1] *Department of Pharmacy, The Islamia University of Bahawalpur, Pakistan*
[2] *Department of Pharmaceutical Sciences,*
COMSATS-Institute of Information Technology, Abbottabad Campus, Pakistan

***SUMMARY*. The present study was aimed to evaluate the suitability of a newly synthesized polymer methylcellulose glutarate (MCG) for sustained release matrix system using antihypertensive drug captopril. Methylcellulose glutarate was first prepared using methylcellulose and glutaric anhydride with 1:0.5 ratio and confirmed with FTIR, NMR and MALDI. MCG was then employed in various amounts with fixed amount of captopril for the preparation of matrix tablets. Decreasing the amount of MCG had no considerable sustaining effect on *in vitro* drug release from the matrix system. MCG was also evaluated at different pH values and stirring speed and no appreciable difference in the release profiles was noticed. Moreover, dissolution data of optimum formulation followed zero-order kinetic.**

KEY WORDS: Captopril, Methylcellulose glutarate, Methylcellulose, Sustained release.

* Author to whom correspondence should be addressed. *E-mail:* nisar@ciit.net.pk

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