



Study of Drug Release Kinetics from Sustained Release Matrix Tablets of Acyclovir using Natural Polymer Obtained from *Colocasia Esculenta*

Dharmendra Solanki^{1*}, Mohit Motiwale², Sujata Mahapatra³

¹College of Pharmacy, Shri Ram Murti Smarak College of Engineering and Technology (SRMS CET), Bareilly (UP) 243202, India

² Faculty of Pharmacy, VNS Group of Institutions, Bhopal (MP), India

³ Department of Botany, Ramadevi Women's University, Bhubaneswar (Odisha), India

Abstract : Sustained-release (SR) matrix tablets of Acyclovir and polysaccharide isolated from corms of *Colocasia esculenta*, at different drug to polymer ratios, were prepared by using wet granulation method. The formulated tablets were also characterized by physical and chemical parameters and results were found in acceptable limits. The investigation focuses on the influence of the proportion of the matrix material on the mechanism and the release rate of the drug from the tablets. In vitro drug release appears to occur both by diffusion and a swelling-controlled mechanism, indicates the drug release from the tablet was non-Fickian super case II transport. The drug release data fit well to the Zero-order drug release Model and the Korsmeyer equation.

Keywords : Acyclovir, Sustained-release, *Colocasia esculenta*, Natural polysaccharide, etc.

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