



Hypromelose / Polyethylene Oxide (PEO) Matrix Tablets for Oral Sustained Acyclovir Release: Formulation Aspects and Release Behavior

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SUMMARY. Hydrophilic matrix tablets were developed with acyclovir (ACV), using hypromelose and polyethylene oxide (PEO) in different concentrations. Matrix tablets obtained in each formulation were evaluated to determine the weight variation, thickness, hardness, drug content, swelling and erosion and *in vitro* release. The swelling and erosion studies were influenced by pH value and polymer type. The ACV release under acid conditions occurred around 12 and 6 h for PEO and hypromelose matrices, respectively. The mechanism involved in drug release was characterized by anomalous behavior for all formulations, except in 0.1 N HCl where formulations containing hypromelose demonstrated a Super Case II kinetics.

KEY WORDS: ACV, Hypromelose, Hydrophilic matrix tablets, POE, Polymer gels.

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