

# **IN VITRO COMPARATIVE OF DIFFERENT ACYCLOVIR TABLET FORMULATION IN COMPARISON WITH A PURE ACYCLOVIR**

## **ABSTRACT**

The aim of the study was to compare the in vitro performance of different acyclovir tablets of the same strength from different companies under different trade names: Acyclovir actavis 400mg tab ,Acic 400mg tab ,and Veramide 400mg tab., and compare with pure acyclovir. The comparison include friability, thickness, and hardness as non official tests, and dissolution and weight variation as official tests. Dissolution test is the most important test in which we can determine the real amount of active ingredient (acyclovir) found in each tablet formulation in addition to the rate of drug release from these formulation The results reveals that no significant changes observed in thickness, hardness ,and Friability ,all the formulation were found within the limits. The dissolution rate exerts significant differences after 5min, 51.9% of veramide, 76.4% of acyclovir actavis, and acic 58.3% in comparison with 88.5% of acyclovir. After 10 min, only the percentagq released from acic.( 75.72% ) was iignificantly differ from reference drug acyclovir94.5o/o .While the results of this study showed a significant differences of percentage released after 20 min from veramide ,acyclovir actavis ,and acic are (95.7,97.2,and 99.1 respectively) in comparison with acyclovir(99.5%). Amount of drug that released after40 min ,the

percentage of drug released from all test tablets not significantly differ from that released from acyclovir 100%. Conclusion an attempt was made to compare three acyclovir different forms Acyclovi actavis , Acic ,and Veramide and compare the dissolution rate with standard acyclovir .The results showed a significant decrease in dissolution rate after 5 ,and 20 min ,only acic exert a significant reduction after 10 min. All tablets released active ingredient in non significant manner after 40 min . further in vivo studies showed be done to reveal how such results affect the pharmacokinetic of mentioned drugs.