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Sensitivity of 82 herpes simplex virus isolates to acyclovir and interferon α.
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We have tested two methods to determine the sensitivity of HSV isolates to Acyclovir and Interferon α: A colorimetric method (Neutral Red Dye Uptake) and DNA Hybridization. There was a good correlation between the values obtained by the two methods ($n = 16$, $r = .724$, $p = .002$). Furthermore our results show that the two methods were reproducible and reliable. Using the first method HSV-1 isolates had ED50 ranging from 0.030 ± 0.02 to 0.164 ± 0.03 (mean 0.097 μg/ml) for ACV and 6.3 ± 5.2 to 54.0 ± 9.0 (mean 37.8 I.U./ml) for interferon α; H2V-2 isolates had ED50 ranging from 0.038 ± 0.03 to 0.174 ± 0.07 (mean 0.103 μg/ml) for ACV and 10.0 ± 5.0 to 55.0 ± 11.4 (mean 35.0 I.U./ml) for interferon α. Using the second method, HSV-1 isolates had ED50 ranging from 0.033 ± 0.12 to 0.190 ± 0.031 (mean 0.09 μg/ml) for ACV and 8.5 ± 5.0 to 50.0 ± 10.0 (mean 31.5 I.U./ml) for interferon α; HSV-2 isolates had ED50 ranging from 0.040 ± 0.05 to 0.190 ± 0.05 (mean 0.109 μg/ml) for ACV and 15.2 ± 5.1 to 43.5 ± 6.0 (mean 34.0 I.U./ml) for interferon α. Two additional isolates from a patient who received a bone marrow transplant, and was treated with ACV, had ED50 of 50 μg/ml ± 10 μg/ml, 22 days and 50 days following the initiation of therapy.

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COMPARATIVE SUSCEPTIBILITY OF REACTIVATED HERPES SIMPLEX VIRUSUS (HSV) TO THREE ANTIVIRAL AGENTS. N.K. AYISI[1], A.L. Stuart,[2] and V.S. Gupta2.
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The susceptibility of latent HSV strain NS, reactivated from the dorsal root ganglia of control and drug treated guinea pigs to three antivirals was investigated. Methoxymethyldeoxyuridine (MMUdR) inhibited parent virus and reactivated virus from control group to the same extent. Arabinosyl adenine (ara-A) was more effective against the reactivated virus than against the parent virus. In contrast, there was a 5-18 fold decrease in the susceptibility of the reactivated virus to acyclovir (ACV) when compared with the parent virus. A similar patter of susceptibility cas seen with viruses reactivated from MMUdR-ara-A combination (Midarbine) and ACV treatment groups. These results may partially explain the relative decreased efficacy of ACV in the treatment of recurrent HSV genital infections reported by several investigators. Furthermore, Midarbine may prove to be quite beneficial in the treatment of recurrent HSV infections.