Oral Session VIII

Clinical Studies

118

Treatment of Experimental Ultraviolet Radiation(UVR)-Induced Herpes Labialis with Peroral and Topical Acyclovir(ACV). SL Spruance, DJ Freeman, JCB Stewart, MB McKeough, G Wenerstrom, GG Krueger, and NH Rowe. U of Utah, Salt Lake City, UT; U of Pittsburgh, Pittsburgh, PA; and U of Mich, Ann Arbor, MI, USA.

We exposed 196 patients to experimental UVR and treated them with ACV or placebo at different times and by different routes. Of 98 subjects treated with placebo, 39(40%) developed 43 lesions on or near the irradiated zone. The distribution of lesions by time was bimodal, 11 lesions(26%) occurring within 48 hours("early" lesions) and 32(72%) 2-7 days after UVR exposure("late" lesions). Prophylactic administration of 5% ACV cream q2h while awake beginning immediately post-UVR did not reduce either the frequency or the severity of herpes labialis. Prophylactic administration of ACV capsules 200 mg 5x/day beginning 7 days prior to or immediately post-UVR prevented the development of the late but not the early lesions(p=0.0001). Delay in the start of ACV capsules to 48 hours post-UVR, analogous to early treatment of the late lesion group, reduced mean lesion size(52 vs 153 mm^2, p = .01) and healing time(6.0 vs 12.9 days, p=.05) but had no effect on the frequency of lesions. Systemic ACV but not topical ACV cream effectively prevented and treated herpes labialis in this model. ACV capsules could only prevent the development of a subpopulation of induced lesions(late lesions), and to see the preventive activity of systemic ACV, therapy had to be initiated 48 hours or more before lesion onset. These studies provide a means to rapidly and comprehensively assess antiviral compounds for herpes labialis.