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Comparison of Peroral Acyclovir(ACV) and Topical 15% Idoxuridine in Dimethyl Sulfoxide(IDU/DMSO) for the Treatment of Herpes Labialis. SL Spruance, JCB Stewart, DJ Freeman, VJ Brightman, JL Cox, G Wenerstrom, MB McKeough and NH Rowe. U of Utah, SLC, UT; U of Mich, Ann Arbor, MI; U of Pitt, Pittsburg, PA; U of Penn, Philadelphia, PA; and David Grant MC, Travis AFB, CA, USA.

We treated 174 immunocompetent patients having a recurrent episode of herpes simplex labialis with ACV capsules or placebo capsules 200 mg 5x/day for 5 days. Subsequently, using a similar protocol, 301 patients were treated with topical IDU/DMSO or DMSO control solution 6x/day for 4 days. Results are below.

PERCENT REDUCTION IN LESION SEVERITY VS CONTROL(p value)

Population and measure	Peroral ACV	IDU/DMSO
Total population		
Mean duration of pain	34 (.01)	35 (.01)
Mean healing time(to loss of crust)	9 (.17)	21 (.004)
Patients treated in the prodrome or erythema lesion stage		
Mean duration of pain	36 (.02)	42 (.08)
Mean healing time(to loss of crust)	27 (.03)	38 (<.001)

The nature of the clinical benefit effected by the two drugs was in each case the same: concentration of benefit in the subgroup treated early; reduction in pain; and reduction in the length of healing time. Both the oral and the topical routes can be effective means of antiviral drug delivery in this disease.

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The effects of 5-iodo-2'-deoxyuridine(IDU) and acyclovir (ACV) on herpes simplex virus(HSV) specific cytotoxic T lymphocytes (CTL). H.Yamashiro, H.Sakata, M.Watanabe and M.Matsukawa Department of Ophthalmology, Hiroshima University School of Medicine, Hiroshima, Japan.

Antiviral drugs exert an excellent effect on HSV keratitis, but those actions on HSV specific CTL remain unexamined.

We evaluated the effects of IDU and ACV on HSV specific CTL.

Ten days after the inoculation of HSV in mice cornea, CTL were induced from splenocytes of mice, and restimulated in vitro by lipopolysaccharide(LPS)-stimulated lymphoblasts infected with HSV for four days. IDU or ACV was added at the initiation of CTL induction. After four days culture, the numbers of viable cells were measured by cell counting and activities of CTL were assayed by 3H-proline release.

Neither IDU nor ACV reduced the numbers of viable cells. IDU with high concentration ($2.8X10^{-3}$ to$2.8X10^{-4}$M) reduced activities of CTL, but ACV did not influence cytotoxicities by any kind of concentration ($1.3X10^{-1}$ to$1.3X10^{-3}$M).

There is a possibility that topical application of IDU might suppress activities of CTL in HSV keratitis.