

34

Anti-HIV efficacy of SDZ 811, a non-immunosuppressive Cyclosporin derivative.

P. Peichl, R. Harrison, R. Traber and B. Rosenwirth; Sandoz Forschungsinstitut, A-1235 Vienna, Austria.

SDZ 811 is a representative of a group of 4-substituted Cyclosporins being devoid of immunosuppressive activity while retaining full binding capacity to Cyclophilin and exhibiting potent anti-HIV-1 activity. Compound SDZ 811 inhibits selectively HIV-1 replication in T4 lymphocyte cell lines, namely MT4, MOLT4, HUT78, in the monocytic cell line U937, and in Hela T4 cells. IC_{50} values were in the range of 0.01 to 0.1 $\mu\text{g/ml}$, whereas cell proliferation was impaired only at concentrations of 3 to 10 $\mu\text{g/ml}$. Furthermore, its antiviral activity was demonstrated in primary T4 lymphocytes and in primary monocytes. SDZ 811 was found to be equally effective against the laboratory HIV-1 strains IIIB, RF and BaL and against four clinical isolates from geographically distinct regions when tested in primary T4 cells and/or monocytes. Activity against HIV-2 strains ROD and EHO was demonstrated at slightly higher concentrations: IC_{50} values of 0.2 to 0.5 $\mu\text{g/ml}$ were measured.

35

The effect of immunocorrectors on HIV-1 production in vitro.

Barinsky I.F., Nesterchuk S.I.

D. I. Ivanovsky's Institute of virology, RAMS, Russia.

The enhancement of HIV-1 production by immunostimulators leakadine (5 mkg/ml) and thymosine (10 mkg/ml) by 40+-10% and a significant inhibition of HIV-1 production by immunosuppressors cortisone, dexasone and the antiviral drugs ribavirine was demonstrated in H-9 culture. HIV-1 production was estimated by the number of cells expressing viral antigens. The effect of immunostimulators on H-9 cells sensitivity to HIV-1 was found not to be associated with effect of the drug on CD-4-receptor expression, while effect of ribavirine (50 mkg/ml) was due to the decreasing of CD-4 receptor level on the surfaces of H-9 cells. The phenomenon's supposeable mechanism and strategy of ribavirine's application in medical practice are discussed.