The Antiproliferative Agents trans-Bis(resorcylaldoximato)copper(II) and trans-Bis(2,3,4-trihydroxybenzaldoximato)copper(II) and Cytopathic Effects of HIV

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trans-Bis(resorcylaldoximato)copper(II) and trans-bis-(2,3,4-trihydroxybenzaldoximato)copper(II) (CuRES2 and CuTRI2, respectively) have been tested for antiviral properties against HIV, using an in vitro assay that measures the ability of the test compounds to prevent the killing of susceptible human cells by HIV. In the case of CuTRI2, T4 lymphocytes (CEM-V and CEM-Z cell lines) were exposed to HIV at a virus to cell ratio approx. 0.05 in microtiter plates. In the case of CuRES2, a human leukemia cell line (MT-2) was used instead. The tetrazolium salt XTT was added to all wells, and the cultures were incubated and analyzed spectrophotometrically to quantitate formazan production and viewed microscopically for detection of viable cells. In spite of their antiproliferative properties, neither agent had any detectable ability to prevent the cytopathic effects of HIV in cultures of the target cells used. Because the test system employed was constructed in such a way as to detect antiviral agents acting at any stage of the virus reproductive cycle, the results obtained strongly suggest that neither studied agent has any value as the direct prevention of the cell destruction caused by HIV is concerned.

Key words: trans-Bis(salicylaldoximato)copper(II) Analogues, Human Immunodeficiency Virus, Anti-HIV Drug Development