

EVALUATION OF THE ANTIVIRAL ACTIVITY OF EXTRACTS OF CUBAN PLANTS

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The herpes simplex virus is among the most important human pathogens because of the high levels of morbidity and mortality they caused. Antivirals are the only drugs used in the treatment. These drugs present risks or harmful effects to health. The emergence of new viral variants resistant to existing drugs increases the need to search compounds with antiviral activity. Plants are an interesting alternative due to the diversity of compounds with biological activity they have.

Objective: To evaluate the *in vitro* antiviral activity of plant extracts from different species of plant of the genus *Erythroxylum* against two strains of herpes simplex virus type 1: one reference strain and one clinical isolation resistant to acyclovir.

Materials & Methods: Different concentrations of the extracts were made and the mean cytotoxic concentration (CC50) value, mean effective concentration (EC50) was determined using the MTT reduction assay in Vero cells. The selective index (IS) was calculated from the relation $IS = CC50/EC50$.

Results: The extracts studied were not toxic in Vero cells in the range of concentrations evaluated. All extracts inhibited the replication *in vitro* of the herpes simplex virus reference strain with selective index values between 38.21 and 668.89 respectively and only 4 of the extracts protected against the isolate strain.

Conclusions: The studied species belonging to the genus *Erythroxylum* have antiviral activity against the strains of herpes simplex 1, which constitutes a potential for the development of antiviral drugs.

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