



## Effects of Policosanol and Grape Seed Extract Against Global Brain Ischemia-Reperfusion Injury in Gerbils

Vivian MOLINA\*, Yazmin RAVELO, Miriam NOA, Rosa MAS, Maikel VALLE,  
Yohani PÉREZ, Ambar OYARZÁBAL, Nilda MENDOZA, Sonia JIMÉNEZ & Javier SÁNCHEZ

*Centre of Natural Products, National Centre for Scientific Research, Havana City, Cuba*

**SUMMARY.** Stroke is the third cause of death and the first of permanent adult disability. Oxidative damage plays a key role in stroke. Grape seed extract (GSE) and policosanol produce antioxidant and anti-ischemic effects. In this study GSE and policosanol effects on a gerbil global cerebral ischemia model (GCI) were compared. Gerbils were distributed in six groups: a negative control and five with GCI: a positive control (vehicle), two with GSE and two with policosanol (100 and 200 mg/kg). Policosanol and GSE 100 and 200 mg/kg significantly decreased the histological scores of neuronal injury and plasma MDA and SHG levels, while only at 200 mg/kg significantly attenuated hyperlocomotion as compared to positive control group. Although both therapies were similarly effective on most parameters, the antioxidant effect of the low dose of GSE was greater than that of policosanol. In conclusion, GSE and policosanol similarly protected against GCI induced in gerbils.

**KEY WORDS:** Grape seed extract, Policosanol, Cerebral ischemia, Gerbils.

\* Author to whom correspondence should be addressed. *E-mail:* vivian.molina@cnic.edu.cu