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Short Communication

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Cytotoxicity of Dehydrocrotonin (a Nor-Clerodane from *Croton cajucara)* on Human Lymphocytes

Telma M.A.M. LEMOS [1], Hiroshi AOYAMA [2] & Alexandre D.M. CAVAGIS [3]

[1] *Departamento de Análises Clínicas e Toxicológicas, Faculdade de Farmácia, Universidade Federal do Rio Grande do Norte (UFRN), Natal, Rio Grande do Norte, Brazil*
[2] *Departamento de Bioquímica, Instituto de Biologia, Universidade Estadual de Campinas (UNICAMP), Campinas, São Paulo, Brazil*
[3] *Universidade Metodista de Piracicaba (UNIMEP), Piracicaba, São Paulo, Brazil*

SUMMARY. **Trans-Dehydrocrotonin, a 19-nor-clerodane, is the major norditerpene obtained from *Croton cajucara,* a Brazilian medicinal plant which presents important biological effects, such as antineoplastic and antiulcerogenic activities. In this work, we analyzed the effect of this sesquiterpene lactone on normal human lymphocytes. The cell viability was verified after treatment for 24 and 72 h with trans-dehydrocrotonin, in the presence and absence of phytohemagglutin (specific mitogen for this cell), through three end-points to assess cytotoxicity *in vitro:* MTT reduction (mitochondrial function), protein quantification (cell number) and phosphatase activity (cell metabolism). When the cells were treated with dehydrocrotonin in the presence of mitogen, no toxic effect was observed. Nevertheless, in the absence of mitogen, the IC50 was 450 μM for MTT reduction and phosphatase activity. Moreover, in this condition, trans-dehydrocrotonin caused stimulation of protein content from 100 μM. Our results suggest that phytohemagglutin protects human lymphocytes against the trans-dehydrocrotonin toxic effect.**

KEY WORDS: Cytotoxicity, Human lymphocytes, Phosphatase, Trans-dehydrocrotonin.

* Autor a quem correpondência deve ser enviada: *E-mail:* telmaml@yahoo.com.br

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