Phytochemical and Pharmacological Investigations of Virola oleifera Leaves

Kátia N. Kuroshima\textsuperscript{a,c}, Fátima de Campos\textsuperscript{b}, Márcia M. de Souza\textsuperscript{b}, Rosendo A. Yunes\textsuperscript{c}, Franco Delle Monached and Valdir Cechinel Filho\textsuperscript{b*}

\textsuperscript{a} Centro de Ciências Tecnológicas da Terra e do Mar – CTTMar, Universidade do Vale do Itajaí, UNIVALI
\textsuperscript{b} Núcleo de Investigações Químico-Farmacêuticas – NIQFAR/CCS, Universidade do Vale do Itajaí (UNIVALI), Rua Uruguai, 458. Cx.P. 360, CEP 88302–202, Itajaí-SC-Brasil. Fax: 55 021 47 341 7664. E-mail: cechinel@mbox1.univali.br
\textsuperscript{c} Departamento de Química, Universidade Federal de Santa Catarina (UFSC), Florianópolis- SC – Brasil
\textsuperscript{d} Centro Chimica Recettori, C.N.R., Rome, Italy

* Author for correspondence and reprint requests


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A methanolic extract and two fractions (\textit{n}-hexane and ethyl acetate) from \textit{Virola oleifera} leaves and some compounds (one lignan and two flavonoids) were investigated to verify the analgesic activity by using the writhing test in mice. The crude methanolic extract showed a moderate analgesic effect (about 40\% of inhibition in this test at 10 mg/kg), whereas \textit{n}-hexane and ethyl acetate fractions caused inhibition of 51.3 $\pm$ 5.9\% and 50.5 $\pm$ 6.3\%, respectively. Oleiferin-C (1), a lignan isolated from the \textit{n}-hexane fraction, showed an interesting analgesic potential in this model when compared to two standard drugs, paracetamol (4-acetamidophenol) and aspirin (acetylsalicylic acid). The ID\textsubscript{50} calculated for this compound was 17.25 $\mu$mol/kg, with confidence interval between 13.7 and 21.3 $\mu$mol/kg, being about 8 times more potent than the standard drugs. The mixture of two glycoside-flavonoids, identified as astilbin (2) and quercitrin (3), also exhibited good analgesic activity, causing 63\% of reduction of abdominal constriction in mice. These results suggest beneficial effect of this plant to treat dolorous processes.