5th BCNP Brazilian Conference on Natural Products
XXXI RESEM
Atibaia – SP – Brazil
ISBN: 978-85-66836-10-3
Oct. 26–29th 2015

DITERPENES OF BROWN ALGAE *Canistrocarpus cervicornis* FROM CEARÁ

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Abstract: *Canistrocarpus cervicornis* is widely distributed in the world [1]. Previous investigations led to isolation of dolastane and secodolastane diterpenes, for which there are many reported biological activities [2,3,4,5]. Marine organisms present usually a considerable chemical diversity among samples from different locations [6]. Therefore, since samples from "Pedra do Paraíso" (CE/Brazil) were not previously investigated, the aim of this project was to isolate secondary metabolites from this selected sample. Algal material was dried under cold air and soaked with dichoromethane/methanol 2:1. Fractionation of the crude extract was performed by successive chromatographic separations with silica gel and gradient of solvents with increasing polarity. Vacuum Liquid Chromatography (VLC) was used in the first step; selected fractions were submitted to column chromatography with medium pressure and, eventually, to High Performance Liquid Cromatography (HPLC). Samples considered pure by Thin Layer Chromatography (TLC) analysis, were analyzed by Nuclear Magnetic Resonance (NMR) in deuterated chloroform in spectrometers Bruker AC200 and Bruker DRX400. Two pure compounds were obtained (CC1 and CC2). The H^1 NMR spectrum of CC1 includes four singlets between 0.83 and 1.24 ppm, for hydrogens of the methyl groups; signals for a deshielded hydrogen at 5.52 ppm, corresponding to one olefinic H; and at 4.90 and 4.80 ppm, corresponding to the exomethylene H atoms. CC2 presented a similar spectrum, but with signals for two olefinic hydrogens. The database Marinlit® allowed the identification of these compounds as (4*S*,9*R*,14*S*)-4-acetoxy-9,14-dihydroxydolasta-1(15),7-diene (CC1) and (4*S*,14*S*)-4-acetoxy-14-hydroxydolasta-1(15),7,9-triene (CC2), tricyclic diterpenes of the dolastane type, confirming the relative abundance of these diterpenes among Dictyotaceae. CC1 presents several biological activities, especially antiviral [4], antileishmania [5], anticoagulant, antiplatelet [2], among others. For CC2, no biological activity was reported so far. Additional studies aiming isolation of other metabolites are in progress.

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