



CHEMICAL COMPOSITION OF THE ESSENTIAL OIL OF LEAVES OF *Croton conduplicatus* Kunth

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Introduction: *Croton conduplicatus* Kunth (Euphorbiaceae) is a species occurring mainly in the Caatinga (semi-arid vegetation), and popularly known as “quebra-faca”. To the best of our knowledge, no phytochemical and pharmacological studies have been previously reported on this species. **Objectives:** To elucidate the chemical composition of the essential oil from leaves of *C. conduplicatus* collected in dry and rainy season. **Methods:** Fresh leaves of *Croton conduplicatus* Kunth. were collected in Petrolina-PE. The collections were made in the dry season (July to August of 2012) and rainy season (February to April of 2013). The plant material was cut into pieces, and subjected to hydrodistillation for 3 h in a modified Clevenger-type apparatus. The substances present in the essential oil of *C. conduplicatus* were investigated on a Shimadzu QP-2010 gas chromatograph interfaced to a mass spectrometer (GC-MS). The following conditions were used: DB-5MS column Agilent Technologies (30 m x 0.25 mm x 0.25 µm); helium (99.999%) carrier gas at a constant flow of 1.1 ml/min; 1.0 µl injection volume; injector split ratio of 1:10; injector temperature 250 °C; electron impact mode at 70 eV; ion-source temperature 280 °C and transfer line temperature 260 °C. The oven temperature was programmed from 60 °C, with an increase of 3 °C/min to 240 °C. A mixture of linear hydrocarbons (C₉H₂₀-C₂₁H₄₀) was injected under the same experimental conditions as samples, and identification of the constituents was performed by comparing the mass spectra obtained with those of the equipment database (Wiley 7 lib and Nist 08 lib) and by using the Kovats Index. The data were acquired and processed with a PC with Shimadzu GC-MS Solution software. **Results:** The main compounds found in the oil of leaves collected in the dry season were 1,8-cineole (17.59%), *p*-cymene (14.38%), spathulenol (13.38%) and caryophyllene oxide (9.56%). For the essential oil collected in rainy season the major constituents identified were 1,8-cineole (17.81%), α-phellandrene (11.39%), bicyclogermacrene (8.26%), (*E*)-caryophyllene (6.95%) and spathulenol (6.36%). **Conclusions:** The results showed the influence of collection time on the chemical composition of the essential oil of this species studied.

Palavras-chave: Quebra faca, Caatinga, medicinal plants.