



CHEMICAL COMPOSITION OF THE ESSENTIAL OIL OF LEAVES OF *Croton conduplicatus* Kunth SUBJECTED TO DIFFERENT EXTRACTION TIMES

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Introduction: The Caatinga biome consists of extensive semi-arid plains found mainly in Northeast region, from Piauí to North of Minas Gerais, with the exception of the State of Maranhão, which has no this kind of vegetation. *Croton conduplicatus* Kunth is popularly known as “quebra faca” and it is a typical species of the Caatinga and the knowledge about this specie is scarce. **Objectives:** To evaluate the influence of different extraction times on the chemical composition of the essential oil from the leaves of *Croton conduplicatus*. **Methods:** Fresh leaves of *C. conduplicatus* were collected in Petrolina. The collections were made in July to August of 2012. The plant material was cut into pieces, and subjected to hydrodistillation for 2, 3 and 4 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 the 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 after 2, 3 and 4 hours of extraction were 1,8-cineole (18.91, 17.59 and 15.88%, respectively), *p*-cymene (15.42, 14.38 and 11.38%, respectively), spathulenol (9.76, 13.38 and 11.23, respectively) and caryophyllene oxide (7.32, 9.56 and 9.67%, respectively). **Conclusions:** This study reveals that the extraction time influences the amount of chemical constituents present in the essential oil of the medicinal plant studied here.

Keywords: Medicinal plants; Quebra faca; Essential oil.