Preliminary study of bioactivity of essential oils from flowers of *Nectandra megapotâmica* (Spreng.) Mez (Lauraceae) from Mato Grosso do Sul

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Keywords: *Nectandra megapotâmica*, Mato Grosso do Sul, essential oil.

The Lauraceae family is rich in secondary metabolites belonging to different classes, including bioactive terpenes, which have great importance for the pharmaceutical industry, covering a wide range of diverse chemical compounds (1,2). In order to contribute to the discovery of new constituents, studies were performed with volatile oils extracted from flowers of *Nectandra megapotâmica* (Spreng.) Mez. They are terpenes easily found in this species. The bioassay conducted with the oil, aiming to know the biological potential to inhibit bacterial growth, presented significant values. The test was positive in three strains of bacteria *Staphylococcus aureus*, *Escherichia coli*, *Enterococcus faecalis*, having respectively the following inhibition values for concentrations of 1 µL and 5 µL of the oil in relation to each strain, 10.88 mm and 17.00 mm; 8.31 mm and 11.01 mm; 8.79 mm and 15.54 mm. These results can be considered as positive values greater than the 9 mm halo (3). The chromatographic profile of the oil was evaluated by gas chromatography with detection by flame ionization and mass spectrometry. The chromatograms obtained for the oil by GC-MS and GC-FID are equivalent in their chromatographic profiles. A total of 16 compounds were identified by comparison to the mass spectra in NIST MS Search 2.0 library with a probability between 60 and 90%. The retention indices were calculated by the use of a homologous series of hydrocarbons C7-C30 (Sigma-Aldrich) and compared with literature values according to Adams library (4). Major compounds found were spathulenol (20.31%), α-cadinol (5.00%), *c*opaene (4.56%), globulol (4.30%), *allo*-aromadendrene (4.14%) and caryophyllene oxide (2.32%). The oil yield was 0.34%; however, it still necessary more studies on the chemical composition and biological action of the essential oil of flower specimens of this family. In this sense, this work aims to contribute to the literature on it.

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Acknowledgements: Fundect, CNPq, CAPES.

ISBN: 978-85-66836-11-0