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CHEMICAL PROFILE AND EVALUATION OF THE ANTIOXIDANT AND ANTI-*Helicobacter pylori* ACTIVITIES OF *Eugenia astringens* (MYRTACEAE)

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The Myrtaceae family is one of the largest and most diverse families of plant species found in Brazil. Among them, *Eugenia astringens* is traditionally used in folk medicine for its anti-inflammatory, antidiabetic and gastric disorder-relieving properties. Therefore, the aim of this study was to evaluate the chemical profile as well as the antioxidant and anti-*Helicobacter pylori* activities of *E. astringens*. The leaf extract was prepared by maceration using methanol as the solvent. Chemical characterization was carried out using Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry (ESI(-/+)FT-ICR MS). Antioxidant activity was determined by DPPH and ABTS assays using spectrometric methods. The determination of Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) followed the guidelines of the Clinical and Laboratory Standards Institute (CLSI, M7-A10 standard, 2015). Through mass spectrometry analysis (ESI(-/+)FT-ICR MS) of the extract, six flavonoids were identified: quercetin, quercitrin, myricitrin, myricetin, luteolin and tricetin; as well as seven terpenes: selinene, sitosterol, amyrine, taraxerol, betulinic acid, corosolic acid and maslinic acid. *E. astringens* exhibited antioxidant activity with IC_{50} values of 11.173 µg/mL in the DPPH assay and 23.865 µg/mL in the ABTS assay. The MIC and MBC values were both 128 µg/mL. Results below 1000 µg/mL are considered active against *H. pylori*, which is the standard adopted in screening studies for substances with antimicrobial potential. Based on the results obtained, it can be concluded that both the antioxidant activity and the MIC and MBC values against *H. pylori* are significant and may be associated with the presence of terpenes and phenolic compounds in its chemical composition. Thus, these findings demonstrate consistency between the biological activities traditionally reported by the population for *E. astringens* and the results obtained in this study.

***Keywords*:** *Eugenia astringens*, mass spectrometry, antioxidant, *Helicobacter pylori*.