Abstract

Folk uses and scientific investigations have highlighted the importance of Casearia sylvestris extracts and their relevant bioactive potential. The aim of this work was to review the pharmacological properties of C. sylvestris, emphasizing its anti-ulcer, anti-inflammatory, anti-ophidian and antitumor potentialities. Ethanolic extracts and essential oil of their leaves have antiulcerogenic activity and reduce gastric volume without altering the stomach pH, which corroborates their consumption on gastrointestinal disorders. Leaf water extracts show phospholipase A2 inhibitory activity that prevents damage effects on the muscular tissue after toxin inoculation. This antiphospholipasic action is probably related to the use as an anti-inflammatory, proposing a pharmacological blockage similar to that obtained with non-steroidal anti-inflammatory drugs on arachidonic acid and cyclooxygenase pathways. Bioguided-assay fractionations lead to the identification of secondary metabolites, especially the clerodane diterpenes casearins (A-X) and casearvestrins (A-C), compounds with a remarkable cytotoxic and antitumor action. Therefore, the C. sylvestris shrub holds a known worldwide pharmacological arsenal by its extensive folk utilization, exciting searches for new molecules and a better comprehension about biological properties.

Keywords

Casearia sylvestris, folk uses, pharmacological properties