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Fatty Acid Extracts of Sea Pen (Virgularia gustaviana) and Their Potential Applications as Antibacterial, Antifungal, and Anti-Inflammatory Agents

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Abstract : In this study, the crude extracts of Virgularia gustavina were examined as antibacterial, antifungal and anti-inflammatory agent. To assess inflammation, Xylene was applied to the ear of mice. The mice of the experimental group were fed with doses of 10 mg/kg, 20 mg/kg, and 40 mg/kg of lipid extract of chloroform and hexane as a separate group and then statistical analysis was performed on the results. Chloroform and hexane extracts of sea pen have strong anti-inflammatory effects even at low doses which is probably due to 54% arachidonic acid. Antibacterial and antifungal effects of hexane and chloroform extracts were measured with MIC and MBC methods and it is shown that chloroform extract has best activity against Staphylococcus aureus on 125 µg/ml doze in MIC method.

Keywords : sea pen (virgularia gustaviana), lipid extract, anti-inflammatory and anti-bacterial activities, fatty acid
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