

Evaluation of the antioxidant, anti-inflammatory and cytotoxic effect of aqueous extracts of *Capparis spinosa*.

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Abstract

Caper (*Capparis spinosa* L.) is a xerophilous shrub with a remarkable ability to adapt to harsh environments. This plant species is of great interest for its medicinal/pharmacological properties and culinary uses. Its phytochemical importance is based on numerous bioactive components present in different organs. The present work aims to evaluate some biological activities in the aqueous extract from the leaves of *Capparis spinosa* L. The DPPH radical scavenging method was used for antioxidant activity, inhibition of nitric oxide (NO) production for anti-inflammatory activity and viability of skin cancer cells (cell line A431: Carcinoma epidermoid) for cytotoxic effect. The results obtained showed considerable antioxidant power with an IC₅₀ of 0.212 ± 0.096 mg/ml DW. The extract showed a very significant cytotoxic effect with the concentration 250µg/ml. At this concentration, the caper extract shows a significative reduction of NO production: 32 µM/ml against 43.23µM/ml NO for the positive control. The results obtained in this study reveal the potential of caper in bioactive molecules.

Keywords : Antioxydant, anti-inflammatory, bioactifs, *Capparis spinosa*, cytotoxic.



CERTIFICATE



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