Antioxidant, anti-inflammatory and antimicrobial activities of methanolic and aqueous extract of the leaves of *Pistacia lentiscus* L.

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1 ABSTRACT

In this study, The Montaigne of Boutaleb contains a plant heritage characterized by the presence of several species that possess medicinal properties. The methanolic and aqueous extract of the leaves of *Pistacia lentiscus* were prepared, the yield of the methanolic extract was 2 .99 g the percentages 37.2% and the yield of the aqueous extract is 0.98 g with percentages 19.6%. The total dosage of polyphenols and flavonoids in the methanol extract was 38.27 ± 6.30 mg EAG/g extract and 9.80 ± 0,160, mg EAG/g extract, respectively. The total dosage of polyphenols and flavonoids in the aqueous extract was 26.76± 2.47 mg EAG/g extract and 4, 15±0.09 mg EAG/g extract, respectively. The effect of aqueous and methanolic extracts of mastic leaves were evaluated using the DPPH test. Both extracts have shown a weak trapping effect towards the free radicals with an IC_{50} 68.27 ± 9.96 µg/ml and with an IC_{50} 72.92 ± 9.43 µg/ml respectively, then weak activity antioxidant .The antibacterial activity of the methanolic and aqueous extract of the leaves of *Pistacia lentiscus* is significant. The aqueous and methanolic extract of mastic leaves possess a very strong anti-inflammatory activity to protect the membrane of human blood red blood cells.