Anti-Microbial and Antioxidant Effect of Water Extract of Eucalyptus globulus And Quercus persica Plants on Gram Positive and Gram Negative Bacteria

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Abstract

Background: Since early times, plants as a source of medicinal compounds, has been playing a prominent role in the human health maintenance. They have been utilized in traditional medicine containing a vast number of substances that can be considered in the treatment of chronic diseases and a variety of infections.

Objective: To Antioxidant activity estimation of plant extraction, effect of the antimicrobial activity and estimation of total tannin.

Patients and Methods: The leaves of Eucalyptus and the seeds of Quercus were collected in Erbil and Shaqlawa during September 2014. The leaf water extracted from *Eucalyptus globulus* and *Quercus persica* plants were studied its antibacterial activity against two types of bacteria *Staphylococcus aureus* and *E. coli* each plant was used in three different concentrations (25%, 50% and 100%).

Results: It was recognized that both plant extracts have inhibitory effects against two tested bacteria with the observations that the Eucalyptus has more anti-bacterial activity than Oak.

Conclusion: A significant effect on the growth inhibition of gram positive and gram negative bacteria occur during use water extract of *Eucalyptus globulus* and *Quercus persica* Plants

Key words: Antioxidant, *Eucalyptus globulus*, *Quercus persica*, *Staphylococcus aureus*, *E. coli*.

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