

Correlation between Virulence of Various Strains of Mycobacteria and Their Susceptibility to Ethanolic Extract of Propolis (EEP)

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Ethanol extract of propolis (EEP) has antibacterial, antiviral, antiprotozoal and antifungal properties, in addition to many biological effects. Our laboratory has demonstrated a synergistic effect of EEP and antibiotics on the growth of *Staphylococcus aureus*, and suggested that the bactericidal effect of EEP was expressed mainly on virulent mycobacteria rather than on non-virulent (attenuated) ones. The present study was designed to reconfirm the latter finding, by subjecting 17 different mycobacteria strains to EEP, and evaluating whether there is a correlation between the virulence of the mycobacteria strains studied and their susceptibility to EEP. Our findings demonstrate that while the four non-virulent strains studied are not susceptible to EEP, out of the 13 virulent strains studied seven are susceptible and six are resistant to it. These results suggest that while there is no full correlation between virulence of the mycobacteria tested and their susceptibility to EEP, the few strains that were resistant to EEP were non-virulent.

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