**Antibacterial effect of the capsule extract from *Azadirachta indica***

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The neem tree (*Azadirachta indica*) is probably one of the most popular and observed plants in complementary medicine in the last five decades. This evergreen tree is commonly found in India and its health benefits allows it to be extensively used as a medicinal plant. and anti-cancer applications Further research is needed to identify and understand active ingrdients within the extract . The purpose of the study was to investigate the effect of *Azadirachta indica*’s capsule extract against bacterial models. The bacterial models are non-virulent strains related to pathogenic ones and included *Pseudomonas putida*, *Bacillus subtilis*, *Acinetobacter baylyi*, *Enterococcus raffinosus*, *Escherichia coli*, *Enterobacter aerogenes*, and *Erwinia carotovorans*. Bacteria were cultivated in tryptic soy broth (TSB) containing various concentrations (initial concentration: 10 mg/mL) of capsule extract (0-25%) at 37°C with agitation. Turbidity was assessed every 24 hours for three days to determine the qualitative antimicrobial effect of the capsule extract in each bacterial strain. All bacteria grew with the extract added. Growth was stimulated at 20, 22.5 and 25% of extract. The extract content was insufficient to have a noticeable effect on the bacteria. Experiments to quantify the effect of neem extract, including effective dosage, among the bacterial strains cell density are in progress. Ultimately, we aim to proceed with chemical procedures to target and identify specific compounds in the neem extract.