Original Paper

In-Vitro anti-bacterial activity of chloroform, ethyl acetate and hydroalcoholic extracts of *Scilla persica* Hausskn.

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Abstract

**Background and Objective:** The generated genetic diversity in the microbial pathogens and drug resistant led to a growing interest to use herbal medicine. This study was carried out to determine the in vitro anti-bacterial activity of chloroform, ethyl acetate and hydroalcoholic extracts of *Scilla persica* Hausskn.

**Methods:** In this laboratory study, chloroform, ethyl acetate and hydroalcoholic extracts were obtained from bulb of *Scilla persica*. The anti-microbial activity, the minimum inhibitory concentration (MIC) and the minimum bactericidal concentration (MBC) of the extracts were evaluated on *Staphylococcus aureus*, *Bacillus cereus* and *Escherichia coli* using the disk diffusion (growth inhibition zone) and macro-dilution methods. Dimethyl sulfoxide (DMSO) was used as a negative control while nalidixic acid and ampicillin were used as positive control.

**Results:** The maximum inhibition zone for ethyl acetate extract was 26.3±0.1 milimetre, 23.7±0.3 milimetre and 19.5±0.4 milimetre for *Staphylococcus*, *Escherichia coli* and *Bacillus*, respectively. The maximum inhibition zone of chloroform extract was found to be 16.4±0.2 milimetre and 14.9±0.3 milimetre for *Staphylococcus* and *Bacillus*, respectively.

**Conclusion:** Antimicrobial activity of the chloroform and ethyl acetate extracts of bulb of *Scilla persica* on *Escherichia coli*, *Staphylococcus aureus* and *Bacillus cereus* are more effective compared to nalidixic acid and it is similar to ampicillin in in-vitro condition.

**Keywords:** *Scilla persica* Hausskn, MIC, *Escherichia coli*, *Bacillus cereus*, *Staphylococcus aureus*

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