

Cytotoxic and antimicrobial activities of essential plant oil

Abstract

Background: Herbal products are diverse and promising materials of natural medications. Therefore, recently, a huge number of plant species have been investigated for their therapeutic potentials. The current investigation aimed to estimate the antimicrobial and cytotoxic activities of *Salvia multicaulis* Vahl aqueous extract

Methods: The antimicrobial activity was estimated using a broth microdilution method against several bacterial and one fungal strain, while the cytotoxicity test was established against cervical HeLa cancer cells line using MTS assay.

Results: The aqueous extract of *S. multicaulis* showed potent antifungal activity against *C. albicans* in comparison with the commercial anticandidal medication Fluconazole with MIC values of 1.56 µg/ml. In addition, showed a potential cytotoxic effect against HeLa cancer cells comparing with doxorubicin with IC₅₀ values of 105.79 and 9.25 µg/ml, respectively.

Conclusion: The obtained data can be considered as the first information on the antimicrobial and cytotoxic activities of *S. multicaulis* aqueous extract. However, this plant extract has potential anticandidal and cytotoxic effects. Further investigations are needed to assess the in vivo potential of this plant extract in animal and human models