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Antimycobacterial Activity of Ethanolic Extract of Artemisia absinthium

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Abstract : It is known that drugs used in the treatment of tuberculosis show toxic effect to organism especially to liver besides its therapeutic effect. Because of ineffectiveness of drugs used in the treatment regimen of tuberculosis against multidrug resistance (MDR) and extensively drug-resistance (XDR) tuberculosis requires the development of new treatment methods and new, novel drugs. Considering the usage of Artemisia absinthium in traditional medicine in treatment of wounds which suggests its antibacterial activity it seems that, also it may have significant antimycobacterial activity. The objective of present study was to evaluate antibacterial activity of ethanolic extract of A. absinthium against M. tuberculosis. In this study, the effect of ethanolic extract of A. absinthium was tested against tuberculosis and pharmaco-toxicological properties evaluated on laboratory animals. The 20%, 40%, 70% and 96% ethanolic extracts of A. absinthium prepared then its bacteriostatic and bactericidal activities were evaluated by validated methods. Data were analyzed by GraphPad Prism 7.0 at the level $P < 0.05$. Results showed that ethanolic extracts of A. absinthium show no toxicological properties with having high LD50. All concentrations of extract show high bacteriostatic activity on M. tuberculosis. 96% ethanolic extract has highest bactericidal effect among other concentrations. By conducting further studies, as a result of our study, antimycobacterial drug can be prepared from A. absinthium.

Keywords : Artemisia absinthium, antimycobacterial, ethanolic extract, Mycobacteria tuberculosis
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