

Evaluation of in vitro cytotoxic effects of *Juniperus foetidissima* and *Juniperus sabina* extracts against a panel of cancer cells

Sadeghi-aliabadi, H.^{ac}, Emami, A.^b, Saidi, M.^a, Sadeghi, B.^a, Jafarian, A.^c

^a Department of Pharmaceutical Chemistry, Faculty of Pharmacy and Pharmaceutical Sciences, Isfahan University of Medical Sciences, Isfahan, Iran

^b Department of Pharmacognosy, Faculty of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran

^c Isfahan Pharmaceutical Sciences Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

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Abstract

Isolation of some potent anti-tumor compounds from medicinal plants has motivated researchers to screen different parts of plant for their anti-tumor effects. It has been reported that several species of conifers possess cytotoxic activities on some tumor cell lines. Here branchlets and berries of *Juniperus foetidissima* and *J. sabina* were collected, dried and ethanol extracts of them obtained using percolation. Extracts were dried in reduced pressure and cytotoxic effects of different concentrations (0, 10, 20 µg/ml) were evaluated by MTT assay against three tumor cell lines (Hela, KB, MDA-MB-435), using ELISA at 400 nm. The extracts of the branchlets of male and female of *J. foetidissima* and berries extract of *J. sabina* showed inhibitory activities against KB cells. Extracts of male branchlets of *J. foetidissima* and berries extract of *J. sabina* were cytotoxic (cell survival less than 50%) against Hela cell line. Regarding to MDA-MB-435, only the extract of male branchlets of *J. foetidissima* was cytotoxic. Extracts of *J. sabina* were not cytotoxic at tested concentrations. According to the results obtained by MTT assay, KB cells seem to be much more sensitive than the other cell lines. Copyright © 2009 by School of Pharmacy Shaheed Beheshti University of Medical Sciences and Health Services.

Author keywords

Hela, KB, MDA-MB-435; *J. foetidissima*; *J. sabina*; MTT assay

Indexed Keywords

EMTREE drug terms: *Juniperus foetidissima* extract; plant extract; unclassified drug

EMTREE medical terms: antineoplastic activity; article; branchlet; cancer cell culture; cancer inhibition; controlled study; drug cytotoxicity; enzyme linked immunosorbent assay; fruit; human; human cell; *Juniperus*; *Juniperus foetidissima*; nonhuman

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