

Analysis of antimicrobial, antifungal and antioxidant activities of *Juniperus excelsa* M. B subsp. *Polycarpos* (K. Koch) Takhtajan essential oil

M. R. Moein, Y. Ghasemi, S. Moein, M. Nejati

^aDepartments of Pharmacognosy

ABSTRACT

Juniperus excelsa M.B subsp. *Polycarpos* (K.Koch), collected from south of Iran, was subjected to hydrodistillation using clevenger apparatus to obtain essential oil. The essential was analyzed by gas chromatography/mass spectrometry (GC/ MS) and studied for antimicrobial, antifungal and antioxidant activities. The results indicated alpha-pinene (67.71%) as the major compound and alpha-cedrol (11.5%), delta3-carene (5.19%) and limonene (4.41%) in moderate amounts. Antimicrobial tests were carried out using disk diffusion method, followed by the measurement of minimum inhibitory concentration (MIC). All the Gram positive and Gram negative bacteria were susceptible to essential oil. The oil showed radical scavenging and antioxidant effects.

KEYWORDS

Antimicrobial activity . antioxidant activity . essential oil . *Juniperus excelsa* . thin layer chromatography autographic assay

REFERENCES

2026 Phcog.Net - All rights reserved. Published on the JrnIXPress platform.