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Characterization of fatty acid methyl ester contents in pomegranate flowers

M. Hajimahmoodi[1,*], G. Moghaddam[1], H. Khazani[2], M. Oveisi[1], N. Sadeghi[1], B. Jannat[3]

[1]Department of Drug and Food Control, Faculty of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran
[2]Department of Biology, Tarbiat Moalem University, Tehran, Iran
[3]Ministry of Health and Medical Education, Tehran, Iran

Background and Aims: Pomegranate (*Puncia granatum* L.), a species of Punicaceae, has recently become of great interest to the pharmaceutical scientists, nutriological and pharmacological research, and new drug development due to its distinctive multiple bioactivities. In the current study five different cultivars of pomegranates flowers including Ghojagh, Rabbab, Shishegap, Danesiyah, and Malas were studied with respect to their fatty acid composition.
Methods: This analysis is generally performed by gas chromatography following the conversion of the fatty acids into their corresponding methyl esters (FAME). All measurement were done triplicate.
Results: The saturated fatty acids ranged from 3.78±0.27% to 8.94±0.19%. Also Ghojagh cultivar had maximum content of unsaturated fatty acid with 82.65±0.22% while Rabbab cultivar had the minimum content with 90.79± 0.79%. Furthermore Shishegap, Danesiyah, and Malas were in an equal amount of saturated and unsaturated fatty acids.
Conclusions: The pomegranate flower is rich in fatty acid thus it appeared to have more potential as a health supplement rich in natural fatty acids and is recommended to further intensive study about it.

Keywords: Pomegranate flower; Fatty acid methyl ester; Gas chromatography