

2nd International Conference and Exhibition on Pharmacognosy, Phytochemistry & Natural Products

August 25-27, 2014 DoubleTree by Hilton Beijing, China

Salvia seed oil: A potential source of omega-3 and omega-6 fatty acids

S H Moazzami Farida¹, T Radjabian¹, S A Salami², M Ranjbar³ and N Rahmani¹

¹Shahed University, Iran

²University of Tehran, Iran

³Bu-Ali Sina University, Iran

Salvia L. is one of the most important aromatic and medicinal genera of the Lamiaceae. Some species of this genus are vastly used in traditional medicine and culinary. A very limited number of investigations for fatty acid patterns and contents of the seed oils have been reported in this genus. This study was accomplished to appraise the fatty acid composition of the oils obtained from the seeds of some wild Salvia species from Iran. Seeds of six Salvia species (*S. limbata* Mey., *S. macrosiphon* Boiss., *S. viridis* L., *S. syriaca* L., *S. spinosa* L., *S. chorassanica* Bge.) were collected from their natural habitats. Seed oils were extracted using n-hexane as solvent in a Soxhlet apparatus. The fatty acid compositions were analyzed by gas chromatography (GC) and gas chromatography-mass spectrometry (GC-MS) as methyl ester derivatives after transmethylolation reaction. The average of total oil ranged from 18.84% in *S. chorassanica* to 38.53% in *S. viridis*. Major fatty acids were α -linolenic (C18:3n3) (34.72-43.76%), linoleic (C18:2n6) (19.07-38.10%), oleic (C18:1n9) (14.99-27.06%), palmitic (C16:0) (5.02-9.27%), and stearic acid (C18:0) (1.78-2.73%). Saturated, mono-unsaturated and poly-unsaturated fatty acids in total were obtained 7.30-12.15%, 16.64-27.30% and 60.37-73.22%, respectively. Total percentages of unsaturated fatty acids accounted for 83.32% to 90.02% of the total fatty acids. There were significant differences between fatty acid profiles of samples based on n-3 (34.80-44.01%) and n-6 (26.98-38.34%) fatty acid concentrations. Due to its composition, Salvia oil might compete successfully with other plant oils as a source of linolenic fatty acid in industrial and dietary applications.

Biography

S H Moazzami Farida has completed his BSc at the age of 25 years from Urmia University and MSc at the age of 28 years from Shahed University. He has published 5 papers in conference proceeding.

moazzami.hamed@gmail.com