Research in Pharmaceutical Sciences, 2012;7(5)
School of Pharmacy and Pharmaceutical Sciences
Isfahan University of Medical Sciences

Antioxidant activity and phytochemical investigation of *Onosma chlorotricum* Boiss & Noee lipophilic extract on TLC

F. Namjoyan[1], M. Bazvand[2,*],

[1]*Jundishapur University of Medical Sciences, School of Pharmacy, ,Ahvaz, Iran*
[2] *Jundishapur University of Medical Sciences, School of Pharmacy, Ahvaz, Iran*

Background and Aims: In traditional medicine of Lorestan province ,Oily extract of root Of a plant known as Tashnehdary with the scientific name, Onosma chlorotricum Boiss&Noee used topically for wound healing. activity is one possible mechenisms help healing process. so far this plant has not been investigated for its biological activity nor for its components. These days with changing lifestyles and high stress society the amount of oxidative factors produced in the body increased, and so causes verity of harms to human health. Modern societies are looking to use natural resources especially plants to prevent damaging oxidative reactions. This study has focused on antioxidant activity of component and phytochemical investigation used for evaluation of their structure .
Methods: n-Hexan extract of the plant root containing lipophilic components will be a good estimation of oil extract uses in folk medicine. n-Hexan extraction was performed using Soxhlet apparatus and was run over TLC silicagel plates using sifferent solvent compositions. Separated componnets on TLC was tested for the antioxidant activity using DPPH radical as a spray reagent. Phytochemical investigation was using VSA (vaniline sulfuric acid), Fecl3,KOH, DNPH((2,4-dinitrophenyl)hydrazine) and Ntural product.
Results: Best solvent system was n-Hexane: Chloroform(10:90). In order to examine antioxidant effect of componnets, DPPH solution was sprayed on the TLC. Active antioxidant components appeared as light spots in the pink sheet. .phytochemical evaluation of active compounds was investigated by various reagents. fractions with =0.9, 0.7, 0.37,0.21 and 0.13 showed antioxidant effect and suggestion chemical nature of these compound was flavonoid polyphenols,terpenoids,phenylpropane and coumarin.
Conclusion: This study confirms antioxidant activity of some components in the lipophilic extract of the root of Tashnehdary effectiveness in processes such as wound healing which antioxidant reactions are helpful and also this plant and/or separated compounds can be used in food, cosmeceutical and pharmaceutical industries

Keywords: *Onosma chlorotricum* Boiss & Noee; Tashnehdary; Antioxidant; DPPH; Phytochemical