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

Cycloartanes from *Euphorbia connata* Boiss

S. Shadi[1,*], M. Ghanadian[2], H. Saeidi[1], M. Rahiminejad[1], A. Ayatollahi[3]

[1]*Department of Biology, Faculty of Sciences, Isfahan University, Isfahan, I.R. Iran*
[2]*Isfahan Pharmaceutical Sciences Research Center, Isfahan University of Medical Sciences, Isfahan, I.R. Iran*
[3]*Phytochemistry Research Center & School of Pharmacy, Shahid Beheshti University of Medical Sciences, Tehran, I.R. Iran*

Background and Aims: Cycloartanes are the major intermediates in the phytosterols biosynthesis. In addition, these compounds are used as specific chemotaxonomic markers in Euphorbia genus, which comprises well over 2000 species in tropical and temperate zones of Asia and other parts of the world. In this study the authors decided to isolate a number of cycloartanes from this species in order to introduce them as possible lead compounds for new drug discovery.
Methods: The compounds were purified using column chromatography run by Merck, Silica gel, and HPLC column YMC Pack-Sil (25*300 mm). The structures of the isolated compounds were elucidated by 13C- and 1H-NMR as well as 2D-NMR, IR and by the aid of mass fragmentation pattern and comparing with the literature.
Results: In this research, dried acetone: chloroform extract (1:2) of aerial parts of *Euphorbia connata* collected from the Kerman in the east part of Iran, afforded a number of triterpenes included: cycloart-23-ene-3 (1), 25-diol, cycloart-23-en-25-methoxy-3-ol (2), cycloartan-3-ol (3), cycloeucalenol (4) for the first time from this plant.
Conclusions: Isolation and identification of a Cycloartanes for the first time from this plant as a new source for this type of compounds, allowing them to further study in the future, through the assessment of biological and toxic effects.

Keywords: *Euphorbia connata*; Terpenoids; Cycloartanes