Isolation, complete NMR data and hepatoprotective activity of Sweroside as major constituents of Centaurium spicatum (L.) growing in Egypt

Abdelaaty A. Shahat
Chemistry of Medicinal Plants Department, National Research Centre,
12311 Dokki, Cairo, Egypt
e-mail: aashahat@hotmail.com

Abstract

Objective: The secoiridoid sweroside was isolated as a major compound from Centaurium spicatum and identified by $^1$H and $^{13}$C-NMR and Fab-Mass as well the hepatoprotective activity of the 80% of the total extract and the sweroside compound were evaluated.

Methods: The isolation and identification of sweroside from Centaurium spicatum was carried out using TLC, Column chromatography, Fab Mass and NMR spectroscopy and the hepatoprotective activity was carried out according to Kiso et al., 1983.

Results: Isolation and complete NMR of sweroside compound was carried out. The toxic concentration of 80% alcoholic extract is more than 1000 µg/ml. Whereas, the concentration that kills half of the cultured cells by sweroside was 50 µg/ml

Conclusion: The sweroside compound was isolated as the major compound from Centaurium spicatum and identified by $^1$H and $^{13}$C-NMR and Fab-Mass. Eighty percent alcoholic extract of Centaurium spicatum is high safe compound with a potent hepatoprotective

Keywords: Centaurium spicatum, Gentianaceae, sweroside, NMR, FAB-MS