Phytochemical and pharmacological study of phenolic contents present in Pyrus calleryana Decne growing in Egypt.

Mariam Abd Elhameid, S.S. El-Hawary, H.M.A. El-Gohary, R.S. El-Sayed and *A.A. Sleem

Professor

Abstract

Three flavonoid glycosides were isolated from the ethyl acetate extract of Pyrus calleryana Decne. leaves and were identified as Fisten-3-(6"-acetyl)-O-β-D-glucopyranosid (F1), Fisten-3-O-β-D-glucopyranosid (F2), and Luteolin-7-O-β-D-glucopyranosid (F3). The identification of these compounds were based upon the consideration of their physical, chemical, chromatographic and spectroscopic evidences [U.V., 1H-NMR, and C13-NMR]. This represents the first report for the isolation of both compounds F1 and F2 from Pyrus species and also from family Rosaceae. Quantitative determination of the flavonoids and phenolic acids present in the leaves of the plant was carried out and calculated as aglycones using HPLC technique. The ethyl acetate extract was found to be safe (LD50) and possess significant anti-oxidant, and anti-inflammatory effects.