

The significance of opium alkaloids in the classification of Papaveraceae in Iraq

Abstract

The Papaveraceae family includes over 40 genera and 760 species in the world, of that 5 genera, namely *Papaver* L. with 15 species, *Glaucium* Mill with 5 species, *Hypecoum* L. with 3 species, *Roemeria* Medic with 2 species and *Eschscholzia* Cham with one cultivated species occur in Iraq. Opium alkaloids of 14 species of Papaveraceae in addition to two species of *Fumaria* L. were chemically studied using High Performance liquid Chromatography (HPLC) analysis. Five opium alkaloids, Morphine, Codeine, Thebaine, Papaverine and Noscapine were significantly detected and variably distributed in the species.

The highest concentration of opium alkaloids was Noscapine with 814.624 ppm in *P. somniferum* while the lowest concentration was codeine with 66.978 ppm in the same species. Our results support maintaining *Fumaria* in distinct family Fumariaceae