

## ***Crataegus pontica* C. Koch; microscopical, macroscopical and chemical investigations and their uses in chemotaxonomy**

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**Background and Aims:** The *Crataegus* genus is widely distributed in Iran. It belongs to Rosaceae family and there are 17 species of that genus in Iran which one of them is *Crataegus pontica* C. Koch.

**Methods:** In this paper some microscopical and macroscopical characteristics of this plant were analyzed, then were compared with other features that were expressed previously in recent reports. All components in *C. pontica*, were analyzed by thin layer chromatography method and then were specified the type of flavonoids and hydroxycinnamic acids in *C. pontica*. Its flavonoids was analyzed quantitatively based on Deutsch Pharmacopoeia method according to hyposide content. Flavonoids are using for determining the chemosystematic relevancies in some species, so in this paper *C. pontica* was compared with three other species of *Crataegus* genus such as *C. monogyna*, *C. melanocarpa* and *C. curvisepala* that are found in Iran, and also with the medicinal standard species of *Crataegus* genus which is called *C. oxyacantha*.

**Results:** Lots of microscopically and macroscopically features of *C. pontica* are indetical to other types of *Crataegus*. Hyposide, rutin and chlorogenic acid are the main flavonoids and hydroxycinnamic acid of the plant. Also these are the main and common structural components in all species of that genus are mentioned above.

**Conclusions:** It seems that researchers can use hyposide, rutin and chlorogenic acid in future chemosystematic studies about *Crataegus* genus and other genera of Rosaceae family.

**Keywords:** Chemotaxonomy; *Crataegus pontica*; Hyposide