

Adulteration And Misusage Of Rhapontici Radix In Taiwan

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ABSTRACT

Rhapontici Radix, a commonly used chinese herb drug, is presented as the first-class drug in Shen Nung Pen Tsao Ching. It has been used for detoxication and anti-inflammation. The botanical origin of Rhapontici radix is *Rhaponticum uniforum* and *Echinops latifolius*. The chemical constituents and pharmaceutical effects of those two species are quite different, even though they both belong to Compositae family. The effects of *R. uniforum* include anti-fungus and against arteriosclerosis, and *E. latifolius* can be used to lower blood pressure and cause excitation in central nervous system.

According to the medical references, a lot of plants have been used as Rhapontici Radix, such as *Veratrum nigrum*, *Echinops grijisii*, *E. ritro* and *E. talassicus*. In order to clarify the botanical origin of commercial Rhapontici Radix in Taiwan market, *R. uniforum*, *E. latifolius* and *V. nigrum* roots were collected as the authentic materials and 40 samples were purchased from Chinese herbal stores in Taipei, Taichung and Kaoshiung. Samples were identified by morphology, anatomy and thin layer chromatographic analysis.

The results showed that 24 of samples (60%) were *R. uniforum*, 15 (37.5%) were *E. latifolius*, and only one (2.5%) was adulterant, *V. nigrum*.

The differences among the morphology and histological anatomy of rhizomes and roots can be employed to identify Rhapontici Radix and Veratri Nigri Rhizome Et Radix in the Taiwan herbs market.

Key words: *Rhaponticum uniforum*, *Echinops latifolius*, identified

