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Antioxidant activity of aqueous extracts from traditional Chinese medicinal herbs: a comparative study

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Overproduction of ROS is observed to be the cause of different diseases such as cardiovascular diseases and different kinds of cancers [1]. Dietary medicinal herbs (DMHs) are great reservoirs for natural antioxidants, which can reduce the risk of ROS [2]. In 2019, the Ministry of Health of China officially added 9 kinds of herbs (*Dendrobium officinale, Ganoderma lucidum, Gastrodia elata, Cornus officinalis, Eucommiae ulmoide, Cistanche deserticola, Astragalus complanatus, Panax quinquefolium, Campanumoea javanica*) to the list of traditional Chinese DMHs. In this study, we compared the antioxidant properties of water extracts of these 9 plants by two methods, including total phenol contents (TPC) and ferric reducing antioxidant power (FRAP) assay. Our results show that water extracts of *Eucommiae ulmoide* and *Cistanche deserticola* contain the highest concentration of total phenols. Besides, the differences of FRAP value among the 9 listed plants were substantial, ranging from 34 to 1220 uM Ferrous/L. *Eucommiae ulmoide, Cornus officinalis* and *Cistanche deserticola* exhibit the high antioxidant capacity by FRAP assay. This work provides two methods available for measuring the antioxidant capacity of the 9 plants from different perspectives, which can offer universal indicator for dietary guidelines to reduce oxidative stress.

Источники и литература

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