

## Abstract

*Panax ginseng*, *Panax quinquefolius* and *Panax notoginseng* are three important Chinese medicine which are commonly found in Macau CM market. They are valuable and well known for treating different symptoms. Actually in Macau the main monitoring method of Chinese medicine is executed by market forces. In this research, we are trying to have a thorough analysis on the quality of different *Panax* Chinese medicine which were randomly collected from Macau local market. Comparing the specific feature of ginsenoside in ginseng, America ginseng and notoginseng, we approve the general quality of *Panax* sold in Macau is up to the standard. Although some of the samples were detected not the original species or mixed up with some impurities such as nail to increase the weight.

To analyse the quantity of ginsenoside in *Panax* herbal medicine, we find that notoginseng which traditionally used to improve the blood circulation of wound have comparatively high  $R_1$  and  $R_{g_1}$  level; America ginseng which traditionally used to improve the blood circulation of heart and brain have rather high  $R_e$  and  $R_{b_1}$  level; Generally the Red/White ginseng have various ginsenoside and the total quantity of ginsenoside is highest among three kinds of *Panax* herbal medicine, especially in Red ginseng. All of these specify the relation of ginsenoside and their medical function, which should have more thorough pharmacological experiment in future.

We also succeed in using ginsenoside as an index to identify different *Panax* species by counting out the ratio of peak area  $R_{g_1}/R_e$  and  $R_{b_1}/R_e$ . These build up a more effective and convenient method of primary testing of *Panax* herbal medicine on quality control in Macau CM market.

### Key Words

*Panax* herbal medicine ginseng America ginseng notoginseng  
Ginsenoide HPLC quality control Macau CM market