实验研究

不同产地珠子参中蛋白质和氨基酸的含量测定*

许 欢[1] 张 丽[1] 王 菲[1] 张 欣[1] 杨新杰[1]
宋小妹[1,2]** 岳正刚[2]
(1. 陕西中医药大学,陕西 咸阳 712046;2. 陕西中医药大学/陕西省中药资源产业协同创新中心,陕西 咸阳 712046)

摘 要:目的 建立珠子参蛋白质和氨基酸的含量测定方法,并比较不同产地珠子参中蛋白质和氨基酸含量的差异。**方法** 实验采用紫外可见分光光度计和全自动氨基酸分析仪,对珠子参中的蛋白质、氨基酸成分进行分析测定。**结果** 陕西、四川、云南三组珠子参总蛋白质含量之间有一定的差异。其中,珠子参总蛋白质的含量顺序为:云南组 > 陕西组 > 四川组;氨基酸的含量顺序为:四川组 > 陕西组 > 云南组。氨基酸中甘氨酸项,陕西、四川与云南的珠子参有显著性差异,陕西与四川没有显著性差异。其余氨基酸指标均没有显著性差异。**结论** 将三大产区珠子参的蛋白质、氨基酸含量比较后发现,云南与四川产珠子参蛋白质含量差异明显;陕西、四川与云南产区珠子参氨基酸含量差异明显。本实验建立的珠子参中蛋白质和氨基酸含量的测定方法简便、稳定、可行。

关键词:珠子参; 蛋白质;氨基酸;含量测定
中图分类号: R 284.2 **文献标识码:** A **文章编号:**2096 - 1340(2017)02 - 0067 - 04
DOI:10.13424/j.cnki.jsctcm.2017.02.025

Determination of Protein and Amino Acid in Zhuzishen of Different Regions

Xu Huan[1] Zhang Li[1] Wang Fei[1] Zhang Xin[1] Yang Xinjie[1]
Song Xiaomei[1,2] Yue Zhenggang[2]
(1. Shaanxi University of Chinese Medicine, Xianyang 712046, China;
2. Collaborative Innovation Center of Shaanxi Chinese Medical Resource Industry, Xianyang 712046, China)

Abstract Objecttive To establish the method testing the content of protein and amino acid in Zhuzishen (Rhizoma Panacis Majoris) and compare the content difference of it from different regions. **Methods** The protein and amino acid in Zhuzishen was analyzed and determined by UV visible spectrophotometer and automatic amino acid analyzer. **Results** The findings showed that the total content of protein in Shaanxi, Sichuan and Yunnan groups is different to certain extent. The order of the total content of protein: Yunnan group > Shaanxi group > Sichuan group; the of total amino acid: Sichuan group > Shaanxi group > Yunnan group. As for glycine in amino acids in Zhuzishen, the three groups were significantly different, while the comparison of Shaanxi and Sichuan groups did not have significant difference. All other indexes in amino acids had no marked difference. **Conclusion** After comparison, the proteins in Yunnan and Sichuan Zhuzishen are significantly different, while the amino acids in Shaanxi, Sichuanand Yunnan Zhuzishen are quite diverse. The determining method setup in the experiment is simple, stable and feasible.

* **基金项目:**国家自然科学基金项目(81503195);陕西省科技厅社发攻关项目(2013k14 - 03 - 08)
** **通讯作者:**宋小妹(1963 -),女,教授。研究方向:中药药效物质基础及中药炮制研究。E - mail:songxiaom@126.com