

研究论文

百合知母汤的高效液相色谱指纹图谱及其与组方药味的相关性

秦昆明, 方前波, 蔡皓, 李伟东, 蔡宝昌*

Jiangsu Key Laboratory of Chinese Medicine Processing, Nanjing University of Chinese Medicine, Nanjing 210029, China

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摘要 研究和建立了百合知母汤的高效液相色谱(HPLC)指纹图谱,为研究百合知母汤的药效物质基础及配伍变化提供了手段。采用Agela Venusil XBP-C18色谱柱(250 mm × 4.6 mm, 5 μm),以乙腈和0.1%甲酸为流动相二元梯度洗脱,流速1 mL/min,检测波长315 nm,柱温25 ℃。以芒果苷为参照物,在相同的色谱条件下测定了10批不同产地的百合与知母制备的百合知母汤的指纹图谱,获得了16个共有指纹峰,通过与对照品的保留时间及紫外光谱比较,标定了5-羟甲基糠醛(5-HMF)、新芒果苷、芒果苷、异芒果苷、王百合苷B的出峰位置。该方法得到的百合知母汤的指纹图谱特征性和重现性较好,方法稳定、可靠,可以为百合知母汤的质量控制提供参考。通过实验归属了百合知母汤指纹图谱中的主要色谱峰,并确定了煎煮过程中的主要变化成分为5-HMF。

关键词 [高效液相色谱](#) [指纹图谱](#) [百合知母汤](#)

High performance liquid chromatographic fingerprints of Baihe Zhimu Tang and its correlation to single herb

QIN Kunming, FANG Qianbo, CAI Hao, LI Weidong, CAI Baochang*

Jiangsu Key Laboratory of Chinese Medicine Processing, Nanjing University of Chinese Medicine, Nanjing 210029, China

Abstract

The high performance liquid chromatographic (HPLC) fingerprints of Baihe Zhimu Tang were established for evaluating the effective substance basis and compatibility regulation of Baihe Zhimu Tang. An Agela Venusil XBP-C18 column(250 mm × 4.6 mm, 5 μm)was employed, and the gradient elution of acetonitrile and 0.1% formic acid was used as mobile phase with a flow rate of 1 mL/min, the detection wavelength was set at 315 nm, and the column temperature was set at 25 ℃. By taking mangiferin as the reference substance, the fingerprints of 10 batches of Baihe Zhimu Tang prepared by Bulbus Lillii and Rhizoma Anemarrhenae from different producing areas were analyzed under the same chromatographic conditions. The results showed that there were 16 common peaks contained in the tested samples. Five constituents were identified as 5-hydroxymethyl-2-furaldehyde (5-HMF), neomangiferin, mangiferin, isomangiferin and regalosite B by comparing the retention times and ultraviolet spectra of the peaks with those of the reference substances. The HPLC fingerprints of Baihe Zhimu Tang established with the above method show good characteristic and repeatability, and the method is stable and reliable, it can be used for the quality control of Baihe Zhimu Tang. The main chromatographic peaks of the HPLC fingerprints of Baihe Zhimu Tang were identified in the experiment and also 5-HMF was identified as the main constituent which changed significantly in decocting process.

Key words [high performance liquid chromatography \(HPLC\)](#) [fingerprints](#) [Baihe Zhimu Tang](#)

DOI:

通讯作者 蔡宝昌 bccai@126.com

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