

“创刊30周年”专栏

采用HPLC-MS/MS技术确定当归芍药散中2个新化合物来源

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摘要 中医经典名方当归芍药散(DSS)在古代用于治疗痛经等妇科疾病, 现代广泛用于痛经、老年痴呆、更年期综合征和黄褐斑等40多种疾病的治疗。在筛选该方镇痛活性部位的研究中, 发现DSS中的 A-N-30部位具有镇痛活性, 从中分离得到2个新化合物(1)和(2), 并鉴定了它们的化学结构。为进一步对2个新化合物进行活性和结构修饰等研究, 需确定2个新化合物的来源, 然后大量制备。采用高效液相色谱-串联质谱(HPLC-MS/MS)技术, 在电喷雾正离子检测模式下, 以一级质谱扫描、子离子扫描和多反应离子监测(MRM)方式, 同时检测该方剂的6个组成药材, 以2个新化合物为对照品, 确定它们均来源于白术。

关键词 [高效液相色谱-串联质谱\(HPLC-MS/MS\)](#) [来源](#) [当归芍药散](#) [白术](#)

分类号

Attribution of Danggui Shaoyao San's New Compounds by HPLC-MS/MS

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Abstract

As a traditional Chinese medicine, Danggui Shaoyao San(DSS) was mainly used for gynecological disease in ancient times, and nowadays used for senile dementia, gynecological disease, hypoinmunity and so on. In our research for the active fraction of DSS, DSS-A-N-30 was found to have an analgesic activity. Two new compounds were isolated from DSS-A-N-30 and identified their chemical structures. To further study the activity and structural modification of the two new compounds, a sensitive and specific method was developed for the attribution of them in DSS-A-N-30 by using high performance liquid chromatography-tandem mass spectrometry(HPLC-MS/MS). Experiments were performed on a triple-quadrupole tandem mass spectrometer using positive electrospray ionization(ESI), and multiple reaction monitoring(MRM) was applied. The results show that the two new compounds are attributed to *Atractylodes macrocephala* Koidz..

Key words [high performance liquid chromatography tandem mass spectrometry\(HPLC-MS/MS\)](#) [attribution](#) [Danggui Shaoyao San](#) [Atractylodes macrocephala Koidz.](#)

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