

论文

LC/MS鉴定中药三七及其复方制剂

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摘要:

目的建立中药三七及其在复方丹参制剂中的特征图谱。方法用LC/MS分析方法,采集三七、人参和西洋参的LC/MS总离子流色谱,从总离子流色谱中提取三七主要化学组分的提取离子流色谱,选择相对稳定、3种药材间差异显著的提取离子流色谱作为三七药材的特征图谱。在相同条件下对比复方丹参的提取离子流色谱与三七的特征图谱;同时用LC/MS/MS对三七中的主要组分进行定性分析。结果与人参皂苷Rg1(m/z 800)和Re(m/z 946)具有相同m/z的提取离子流色谱在3种药材间差异显著,稳定可靠,在复方中有较好的重现性,复方丹参中其他共有成分对其无显著影响。结论三七的LC/MS特征图谱可作为鉴定复方丹参中三七的特征,也可作为鉴别三七和同属其他药材的特征。

关键词: 特征图谱 生药鉴定 人参属 三七

Identification of *Panax notoginseng* and its preparations by LC/MS

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Abstract:

AimTo develop a method of identifying the existing of *Panax notoginseng* in products of traditional Chinese medicine compound Danshen. MethodsTotal ion chromatograms (TIC) of *Panax notoginseng*, *P.ginseng*, and *P.quinquefolius* were obtained by means of LC/MS. Extracted ion chromatograms (EIC) possess *m/z* of 770, 800, 932, 946 and 1 108 of above-mentioned three herbs was compared between species. EIC 800 and 946 were selected as differentiation marks to distinguish *P.notoginseng* from the other two species. The EIC 800 and 946 of *P.notoginseng* were also compared to the EICs obtained by the same method from Chinese patent medicines of compound Danshen pellet, compound Danshen tablet, and compound Danshen injection. EIC 800 and 946 of *P.notoginseng* and its products possess similar peaks, relative retention time, and relative integral areas. Main chemical constitutes of *P.notoginseng* were also identified by using LC/MS/MS. ResultsEIC 800 and 946 were obviously different between *P.notoginseng*, *P.ginseng*, and *P.quinquefolius*. Patent medicines of compound Danshen pellet, compound Danshen tablet, which consist of extractions from *P.notoginseng*, possess the characteristic EICs. The selected EICs were stable and reproductive. ConclusionEIC 800 and 946, which correspond to ginsenoside Rg1, Re, and their isomers, can be used as identifying mark of *P.notoginseng* to differentiate it from other herbs, and also can be used to tell apart *P.notoginseng* from other herb extractions in Chinese patent medicines of compound Danshen.

Keywords: herb identify *Panax* *Panax notoginseng* characteristic-mark

收稿日期 2003-03-14 修回日期 网络版发布日期

DOI:

基金项目:

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