

建立液相色谱-串联质谱(LC-MS/MS)法同时测定半夏厚朴汤中厚朴酚与和厚朴酚在大鼠血浆中的浓度。采用Waters XTerra C<sub>18</sub>色谱柱,以V(乙腈):V(0.1 mmol/L乙酸铵)=75:25的溶液为流动相,流速为0.2 mL/min,进样量5 μL,等度洗脱方式进行分离,检测模式为负离子条件下的选择性反应监测。厚朴酚与和厚朴酚在1~1 000 μg/L浓度范围内线性关系良好,定量下限均为1 μg/L,方法的检测限(S/N=3)为0.1 μg/L。准确度与精密度结果显示,方法日间、日内变异均小于15%,相对偏差为厚朴酚3.4%~6.6%,和厚朴酚0.5%~4%。低、中、高3个浓度提取回收率均大于90%。该方法可用于灌胃给予半夏厚朴汤复方水煎液后目标成分厚朴酚与和厚朴酚在大鼠血浆中浓度的同时监测,进而进行半夏厚朴汤中厚朴酚与和厚朴酚在大鼠体内药代动力学研究。

A rapid, sensitive and selective method for the simultaneous determination of magnolol and honokiol in plasma was described by liquid chromatography-tandem mass spectrometry (LC-MS/MS). Magnolol and honokiol were separated on Waters XTerra C<sub>18</sub> column using V(acetonitrile):V(0.1 mmol/L ammonium acetate)=75:25 as mobile phase by isocratic elution. The flow rate was 0.2 mL/min, and injection volume was 5 μL. Determination was carried out by negative ion electrospray ionization mode with selected reaction monitoring. The assay was linear from 1 to 1 000 μg/L, and the lower limit of quantification (LLOQ) was 1 μg/L. The limit of quantitation (S/N=3) was 0.1 μg/L. Intra-day and inter-day precision were less than 15%. The relative deviations were in the range of 3.4%—6.6% for magnolol and 0.5%—4% for honokiol, respectively. The recoveries of magnolol and honokiol were more than 90%. The assay was applied to the pharmacokinetic study of magnolol and honokiol after intragastric administration of Banxia-Houpu Decoction to rats.



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## LC-MS/MS法研究厚朴酚与和厚朴酚在大鼠体内的药动学行为

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## The Pharmacokinetics of Magnolol and Honokiol in Rats by LC-MS/MS

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