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Determination the concentration of ceferam in human plasma by LC-MS/MS

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Objective To establish a LC-MS/MS method for the determination of ceferam in human plasma.**Methods** Cefaclor was added as the internal standard.The plasma sample was extracted using acetonitrile and then separated on a Sepax GP-C18(2.1 mm×100 mm,3μm),and the column temperature was 30 ℃.The mobile phase consisted of 0.1% formic acid water solution-acetonitrile(80 : 20),and the flow rate was 0.2 mL·min⁻¹.The ionization was optimized using ESI+,and enhanced selectivity was achieved using tandem mass spectrometric analysis via MRM functions.The ion of m/z: 480.1→396.2 and m/z: 368.1→174.1 was used to qualify,ceferam and cefaclor,respectively.**Results** The limit of detection for ceferam was 52.9 ng·mL⁻¹,and the excellent linearity in the range of 52.9~3174.0 ng·mL⁻¹($r^2=0.9974$).The relative standard deviations of intra assay and inter assay determination were less than 10%.**Conclusion** The established method is sensitive,fast and accurate,and can be successfully used for the determination of ceferam in human plasma and for ceferam pivoxil pharmacokinetic studies.

【Key Words】 : **LC-MS/MS ceferam plasma drug concentration**

【CateGory Index】 : R969.1



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