Pharmacokinetic study of paeoniflorin in mice after oral administration Paeoniae radix extract

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Abstract

Quantification of paeoniflorin, the principal bioactive component of Paeoniae radix, in mice plasma following oral administration of Paeoniae radix extract was achieved by using a simple and rapid high-performance liquid chromatographic method. The calibration curve for paeoniflorin was linear (r2 = 0.998) over the concentration range 10-200 ng/ml. The coefficients of variation of intra- and inter-day assays were 15.04, 7.31, 6.14, 6.55, 6.63% and 12.71, 6.07, 3.61, 5.51, 4.52% at concentrations of 10, 60, 100, 160, 200 ng/ml, respectively. The recoveries of paeoniflorin from mice plasma were found to be 74.49, 76.83, 80.38 and 80.56% for concentrations of 30, 80, 120 and 160 ng/ml, respectively. The plasma concentration-time curves were fitted with mean terminal half-lives (t(1/2)) of 94.16 min.