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液相色谱-串联质谱法同时测定血液中的18-甲基炔诺酮和孕酮含量

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摘要

关键词

分类号

Simultaneous Quantitative Determination of Norgestrel and Progesterone in Human Serum by High Performance Liquid Chromatography-Tandem Mass Spectrometry with Atmospheric Pressure Chemical Ionization

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Abstract A selective, reliable and rapid method for the simultaneous determination of progesterone and norgestrel concentration in human serum after taking oral contraceptive tablet has been developed using high performance liquid chromatography-tandem mass spectrometry (HPLC-MS-MS) with atmospheric pressure chemical ionization (APCI) interface. The norethisterone was used as the internal standard. Selected transitions of m/z 313/245 for norgestrel, m/z 315/97 for progesterone and m/z 299/109 for norgestrel were monitored using multiple reaction monitoring (MRM) mode for quantitation. The assay was linear over the concentration range of 0.2-50ng/mL for norgestrel and progesterone. The lower level of quantitation in human serum was obtained at 0.2ng/mL for both norgestrel and progesterone using optimum tuning parameters. Serum concentrations of norgestrel and progesterone were determined following oral administration of norgestrel to female volunteers.

Key words

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