

研究论文

复方丹参滴丸的毛细管电泳指纹图谱

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摘要 采用毛细管区带电泳法建立了复方丹参滴丸(Compound Danshen Dropping Pill, CDDP)的指纹图谱。以50 mmol/L硼砂-200 mmol/L硼酸(体积比为1:1, 含1.1%(体积分数)三乙胺)为背景电解质溶液, 采用未涂层石英毛细管(75 cm×75 μm, 有效分离长度63 cm), 运行电压18 kV, 紫外检测波长290 nm, 以原儿茶醛(protocatechualdehyde, PAH)峰为参照物峰确定8个共有峰, 建立了CDDP的毛细管电泳指纹图谱(capillary electrophoresis fingerprint, CEFP)。用系统指纹定量法评价CEFP所反映的CDDP质量, 依据系统指纹定量法划分10批CDDP的质量级别, 仅有1批含量偏低。系统指纹定量法可以对中药及其制剂进行较好的全质量控制, 所建立的CEFP具有较好的精密度和重现性, 为CDDP的质量控制提供了新的参考。

关键词 [毛细管电泳指纹图谱\(CEFP\)](#) [三角形优化法](#) [四面体优化法](#) [系统指纹定量法](#) [原儿茶醛](#) [丹酚酸B](#) [复方丹参滴丸\(CDDP\)](#)

Capillary electrophoresis fingerprints of Compound Danshen Dropping Pill

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Abstract

To establish capillary electrophoresis fingerprint (CEFP) of Compound Danshen Dropping Pill (CDDP) by capillary zone electrophoresis, the electrophoretic separation was performed by using a 75 cm×75 μm (the effective length of 63 cm) uncoated fused silica capillary with 50 mmol/L sodium borate and 200 mmol/L boric acid (1:1, v/v) containing 1.1% triethylamine as the background electrolyte. The running voltage was 18 kV while the detection wavelength was set at 290 nm. The CEFPs were produced by the electropherograms from 10 batches of CDDP and the 8 co-possessing peaks were selected as the fingerprint peaks of CDDP's CEFP by choosing protocatechualdehyde peak as the referential peak. The quality of CDDP was evaluated by systematic quantified fingerprint method through assessing the CEFP. Ten batches of CDDP were classified by systematic quantified fingerprint method. Among the 10 batches of CDDP, the contents of 1 batch were obviously lower while the others were almost similar. The CEFPs of CDDP were established with good precision and reproducibility, which can be served as a novel reference to identify and control the quality of CDDP.

Key words [capillary electrophoresis fingerprint \(CEFP\)](#) [triangle optimization method](#) [tetrahedron optimization method](#) [systematic quantified fingerprint method](#) [protocatechualdehyde](#) [salvianolic acid B](#) [Compound Danshen Dropping Pill \(CDDP\)](#)

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